GREATER MEKONG SUBREGION
CORE ENVIRONMENT PROGRAM
AND BIODIVERSITY CONSERVATION
CORRIDORS INITIATIVE

PROGRAM FRAMEWORK DOCUMENT (2012-2016)

CONTENTS

ABBREVIATIONS

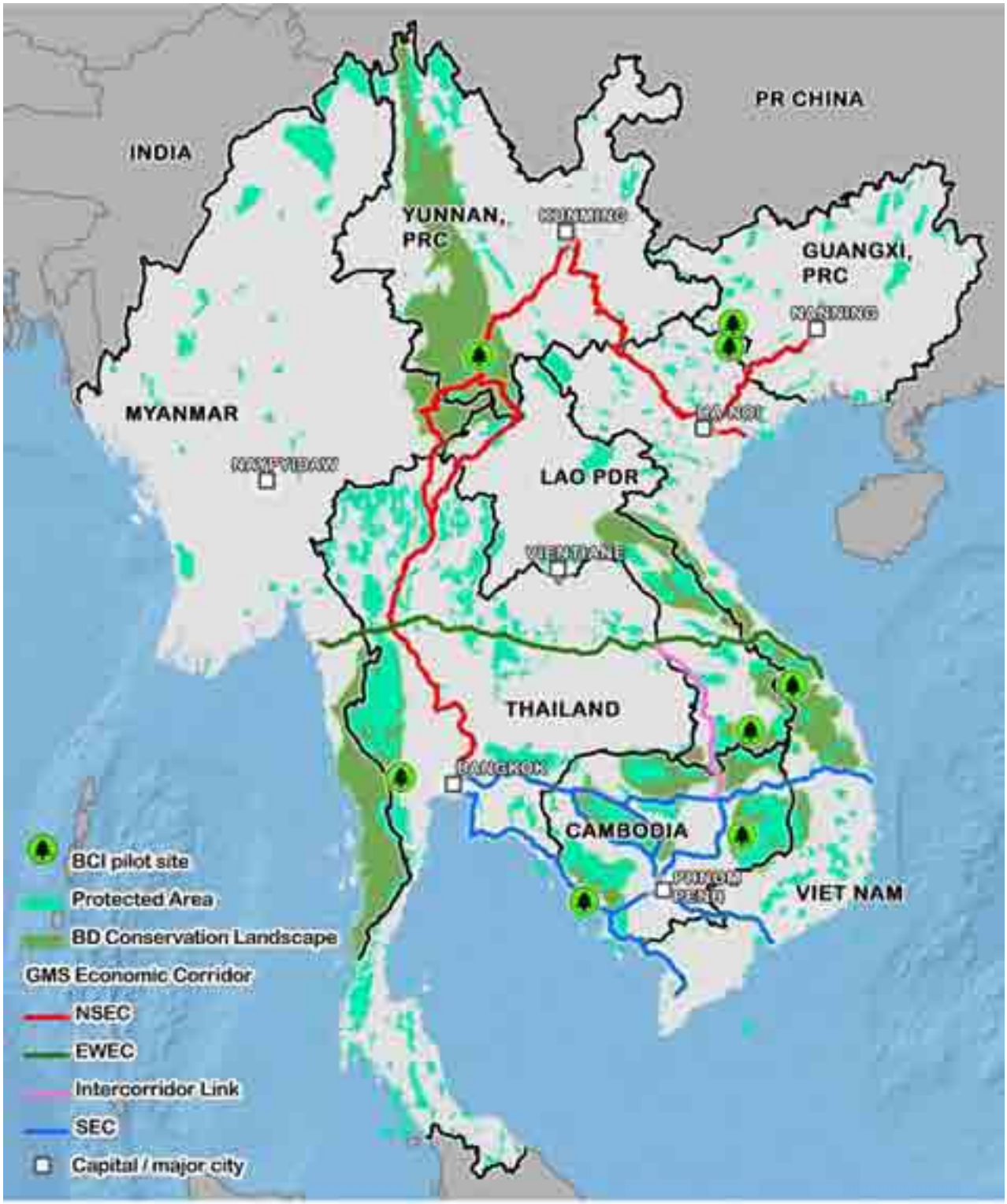
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BCC	Biodiversity Conservation Corridors Investment Program
BCI	Biodiversity Conservation Corridors Initiative
CASP	GMS Core Agriculture Support Program
CBD	Convention on Biological Diversity
CEP	Core Environment Program
CITES	Convention on Illegal Trade in Endangered Species
CPS	ADB Country Partnership Strategy
DMF	design and monitoring framework
ECP	GMS Economic Cooperation Program
EMM	GMS Environmental Ministers Meeting
EOC	GMS Environment Operations Center
EPA	environmental performance assessment
EWEC	East West Economic Corridor
GDP	gross domestic product
GHG	greenhouse gas
GMS	Greater Mekong Subregion
GNI	Gross National Income
Lao PDR	Lao People's Democratic Republic
MDGs	Millennium Development Goals
MEA	multilateral environmental agreement
MTR	mid-term review
NRM	natural resources management
NSEC	North South Economic Corridor
NTFP	non-timber forest product
OED	ADB Operations Evaluation Division
NSU	national support unit
PES	payment for ecosystem services
PFD	Program Framework Document
PRC	People's Republic of China
PPP	GMS Phnom Penh Plan (for capacity development)
RCC	GMS Regional Coordination Center for power trade development
RCO	GMS Railway Coordination Office
REDD	reducing emissions from deforestation and forest degradation
RETA	Regional Technical Assistance
RPTCC	Regional Power Trade Coordinating Committee
SEA	strategic environment assessment
SEC	Southern Economic Corridor
SF	Strategic Framework
SIDA	Swedish International Development Agency
SMCA	spatial multi-criteria analysis
WGA	GMS Working Group on Agriculture
WGE	GMS Working Group on Environment

WEIGHTS AND MEASURES

CO_2	carbon dioxide
Gt	gigatons
ha	hectare
km	kilometer

In this report, "$" refers to US dollar

The Greater Mekong Subregion with major highways (economic corridors) and biodiversity conservation landscapes



Disclaimer: The information contained in this map is not necessarily authoritative.

I

BACKGROUND

1. The six countries that comprise the Greater Mekong Subregion (GMS) – the Kingdom of Cambodia, the People's Republic of China (PRC),[1] the Lao People's Democratic Republic (PDR), the Republic of the Union of Myanmar, the Kingdom of Thailand, and the Socialist Republic of Viet Nam – have pursued a joint regional cooperation program to promote economic and social integration, through enhanced infrastructure connectivity and cross-border collaboration on trade and investment along three economic development corridors. The program has been supported by the Asian Development Bank (ADB) since its inception in 1992. In 2002, the sector-wise programs were consolidated into a comprehensive GMS Strategic Framework (SF) (2002-2011), based on "community, connectivity and competitiveness" as the building blocks of the vision.

2. Since 1995, ADB has provided technical and funding support to address emerging environmental concerns and challenges within the GMS. The Core Environment Program and Biodiversity Conservation Corridors Initiative (CEP-BCI) was endorsed at the GMS Environment Ministers' Meeting (EMM) in Shanghai, PRC, in 2005 to respond to these challenges.[2] Its aim was to consolidate GMS environmental initiatives under a single integrated program in order to achieve its vision of a poverty-free and ecologically rich GMS. It does so by mainstreaming sound environmental management across all GMS Economic Cooperation Program (ECP) sectors to enhance their development impact and sustainability. The CEP-BCI 2006-2011 is administered by the ADB under a Regional Technical Assistance Program (RETA 6289), co-financed by the Governments of Finland, Netherlands, and Sweden, and the PRC's Poverty Reduction Cooperation Fund. The program's achievements were acknowledged by the second GMS EMM in Vientiane, Lao PDR, in January 2008, when they requested ADB and the Environment Operations Center (EOC) to begin the preparation of a follow-on phase of CEP-BCI for consideration by the GMS Environmental Ministers at their next meeting in 2011.

[1] Yunnan Province and Guangxi Zhuang Autonomous Region

[2] Joint Ministerial Statement, 1st Meeting of the GMS Environment Ministers, 25 May 2005, Shanghai, PRC

II

RATIONALE

A. ECONOMIC DEVELOPMENT IN THE GMS

3. **Robust economic growth.** Economic development in the GMS[3] has outpaced many other parts of the world over the past two decades, as characterized by national average annual Gross Domestic Product (GDP) growth rates of between 5 to 10 percent in this period.[4] Between 2000 and 2009 average annual GDP of the subregion as a whole grew at a rate of over 9.5 percent.[5] A noteworthy fact was that much of the growth in the region was fueled by intra-regional demand for food, energy and commodities. Export volumes from GMS countries in recent years are almost ten times bigger than in the early 1990s, while intra-regional trade has expanded even more dramatically – by 24 times. Foreign Direct Investment (FDI) has contributed significantly towards development with increasing amounts originating within the region.[6] For instance, between 1988 and 2007 Viet Nam recorded $96.6 billion in FDI inflows; a fourfold increase being recorded just between 2002 and 2006.

4. GMS economies have shown increasing resilience to global economic shocks; only Cambodia and Thailand dipped into negative growth during the recent global recession and these, as well as the other countries, were back in strong positive growth territory in 2010 (e.g., 5.5 percent in Cambodia and 6.8 percent in Viet Nam[7]). Aside from growing inter-regional economic links, stronger resilience can also be attributed to increasing diversification of GMS economies from primarily agricultural economies to a mix of agriculture, manufacturing and service-oriented economies. The contribution of the agriculture sector towards the overall net output of the GMS economy has declined steadily since 1995, whereas the contribution of the service and industry sectors has showed a corresponding increase. Agricultural practices in the GMS are also shifting from traditional subsistence approaches to more modern and commercial approaches. Although at different paces, all countries are showing trends towards increased intensification and specialization of agriculture.

5. **Human development.** The subregion's development has had a significant positive impact on human well-being. Per capita incomes have increased across the subregion, with Gross National Income (GNI) per capita doubling in most countries between 1997 and 2007, notwithstanding inflation. GMS countries have shown

[3] Comprising the Kingdom of Cambodia, Yunnan and Guangxi Provinces of the PRC, Lao Peoples Democratic Republic, Myanmar, Thailand and Viet Nam

[4] Except in Thailand

[5] Asian Development Bank, Statistical Database System (accessed 08.03.11)

[6] ADB Key Indicators for Asia and the Pacific 2010

[7] Government of Viet Nam, 2011. www.chinhphu.vn; Royal Government of Cambodia, 2010. Monthly Statistics Bulletin December 2010.

steady progress towards achieving the Millennium Development Goals (MDG) targets with a number of goals for GMS countries achieving 'on track' or 'early achiever' status.[8] This is echoed by trends in the Human Development Index (HDI), which show consistent growth across the GMS between 2000 and 2010, and most GMS countries (with the exception of Myanmar) classified as achieving 'medium human development' in 2010.[9]

6. **Poverty and income disparity.** Despite obvious gains, efforts are needed to steer growth towards even more broadly inclusive development. Notwithstanding impressive economic growth over the past two decades, the region still remains relatively poor, with the percentage of the population living in poverty ranging from 2 percent in Thailand to 34 percent in Lao PDR.[10] There are also significant differences in per capita income between GMS counties; GNI per capita ranged from $600 to $900 in Lao PDR, Cambodia and Viet Nam, compared with over $3,700 in Thailand in 2009. Within countries, the gap between rich and poor has generally widened – the GINI coefficients of income distribution have increased for most GMS countries between 1990 and 2009,[11] which illustrates increasing disparity of wealth among populations.

7. Economic disparities within the subregion are partially attributed to the concentration of infrastructure along the coastal areas and inaccessibility of the land-locked hinterlands – particularly upland areas which support about 85 million of the 325 million people living in the GMS. The subregion's population remains largely rural, ranging from about 65 percent in Yunnan and Guangxi to just below 80 percent in Cambodia. As elsewhere in the world, poverty is concentrated in rural areas where most households depend on agriculture and, to a lesser extent, on a diversified basket of farm and non-farm wages and transfer payments. Defining features of the region's poor are that they own very few productive assets, and that self-employment or unskilled agriculture labor comprise the major sources of income. Among the poor, women and marginalized groups such as ethnic minorities are affected most.

8. The prospects for future development in the GMS are positive. Strong growth in larger Asian economies, particularly the PRC, will continue to generate demand for goods and services produced in the GMS. Continued investment in infrastructure, energy, trade, tourism and agriculture through the GMS ECP and other regional platforms will drive employment and economic growth. However, future economic prospects will depend on how GMS countries address the pressures and challenges presented below.

B. DEVELOPMENT PRESSURES AND FUTURE CHALLENGES

9. **Dependence on natural resources.** Since 1990, economic expansion in the region has been fueled largely by trade and exports, which has been driven in turn by the extraction of natural resources including land resources for increased agricultural production, mining and mineral-based industries; forest resources for timber and non-timber forest products; and water resources to support increasing agricultural and energy sector expansion, with a particular focus on hydropower generation. In some cases the current trends of natural resource exploitation have posed severe pressure on the resource base, thereby acting as major drivers of resource depletion, environmental degradation and ecosystem fragmentation. Between 10 to 40 percent of arable land in GMS countries is already degraded according to the Greater Mekong Environmental Outlook. National environmental performance assessments (EPAs) prepared under CEP-BCI (2006-2011) confirm that environmental

[8] ESCAPESCAP, ADB and UNDP, 2010. Achieving the Millennium Development Goals in an Era of Global Uncertainty: Asia-Pacific Regional Report 2009/10

[9] UNDP, 2011. International Human Development Indicators

[10] World Bank. 2010. World Development Indicators. Washington, D.C.

[11] World Bank, 2011. GINI Index values for 1990-2010

indicators are showing downward trends across the GMS, notwithstanding improving government responses.[12] Continued unsustainable resource exploitation practices could seriously undermine future economic development of the subregion.

10. **Biodiversity and forests.** Despite considerable effort by GMS governments to sustainably manage forest resources, the magnitude of pressures still outpaces responses. Recent statistics indicate a slowing of overall forest loss in the GMS over the last decade.[13] However the effective rate of forest loss is on the rise if forest degradation is taken into account. This is reflected in the decline in growing stock per unit of forest area, which accelerated between 2005 and 2010 compared with the previous five years.

11. The decline in forest cover and density poses threats to the subregion's biodiversity. Sixteen of the 200 World Wildlife Fund (WWF) classified ecoregions are found in the GMS. Critical landscapes within these ecoregions harbor globally significant populations of threatened species and, as yet, undiscovered species.[14] Between 1997 and 2008, 1,231 new species were discovered across the GMS, with an impressive 308 new species identified in 2008-2009 alone.[15, 16] Fragmentation of these landscapes due to development pressures, combined with the uncontrolled exploitation of wild plants and animals to meet growing consumer demands threatens the GMS with the ' empty forest syndrome'.[17]

12. **Water resources.** Socio-economic developments including infrastructure projects (mainly for irrigation and hydropower), increased demand for domestic, industrial and agricultural use and increased pollution from point and non-point sources have had profound effects on the quantity and quality of water in the GMS. Future development will increase the pressure on water resources and the extensive aquatic resources that support the livelihood and economic activities of the whole region, including over 60 million people living along river banks and in the Mekong Delta alone. Increased water withdrawals and dry-season water shortages create competition for water, particularly in intensively irrigated areas such as the Red and Chao Phraya river deltas. In addition, pesticides and heavy metal contamination in these rivers have food safety and human health impacts for that will undermine both domestic productivity as well as access to export markets. In densely populated areas and industrial zones around the Mekong River the ecological health of the river is a key concern due to limited treatment of industrial wastewater and insufficient handling of hazardous wastes.[18]

13. **Food security.** Growing populations in GMS countries, combined with changing dietary patterns (i.e., preferences shifting from cereals to animal products, fish, vegetables, etc.) will significantly increase the demand for food in the region by a projected 25 percent by 2050 (based solely on population growth).[19] Meanwhile undernourishment continues to be a problem in all countries – ranging from 'moderate' in Thailand, to 'serious' in Viet Nam and Myanmar, to 'alarming' in Lao PDR and Cambodia according to the 2008 Global Hunger Index. Food security concerns in the region are aggravated by deteriorating sanitary and phyto-sanitary conditions which affect food quality and safety.

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[12] CEP-BCI National EPA Reports. http://www.gms-eoc.org/Publication.aspx

[13] Food and Agriculture Organization. 2010. Asia Pacific Forestry Sector Outlook Study II: GMS Report, Rome

[14] WWF. 2009. The Greater Mekong and Climate Change: Biodiversity, Ecosystem Services and Development at Risk

[15] WWF, Greater Mekong Close Encounters: New species discoveries in 2008

[16] WWF, New Blood: Greater Mekong New Species Discoveries in 2009

[17] The 'empty forest' syndrome describes significant gaps in the biodiversity of a forest area, caused mostly by hunting due to the illegal wildlife trade.

[18] Mekong River Commission, 2010. Strategic Plan (2011-2015)

[19] Johnston, R. M.; Hoanh, C. T.; Lacombe, G.; Noble, A. N.; Smakhtin, V.; Suhardiman, D.; Kam, S. P.; Choo, P. S. 2010. Rethinking agriculture in the Greater Mekong Subregion: how to sustainably meet food needs, enhance ecosystem services and cope with climate change. Colombo, Sri Lanka: International Water Management Institute

14. **Energy security.** Rapid economic development has resulted in energy demand growing in excess of supply options. This coupled with volatile global fuel prices has caused growing concerns over energy security in the GMS. Energy demand is expected to grow as a consequence of continued economic development and improvements in grid connectivity – the annual peak demand for power in the GMS countries is forecast to increase by 175 percent by the year 2025 compared to 2010. Meeting the subregion' s energy demand will have a number of social and environmental impacts. Hydropower development in excess of 900 megawatts is envisaged in the Lower Mekong Basin, which will inundate almost 2 million hectares of land,[20] threatening conservation target landscapes in Lao PDR.[21] Similarly, in the Cardamom Mountains in Cambodia[22] 22 proposed hydropower stations will inundate large forest areas. Biofuel production to supplement energy supplies is on the rise in the GMS. While biofuels present a low carbon fuel option on the one hand, thereby helping to reduce the region's GHG emissions, the uncontrolled expansion of biofuel plantations impinges on productive agricultural lands and forest areas that in turn can lead to reduced food security and increased loss of ecosystem services. Additionally, planned expansion of coal powered thermal plants will result in increased atmospheric emissions of carbon dioxide (CO_2) and particulates. For instance the expected ten-fold increase in coal power generation in Viet Nam by 2030 could cost the country close to $9 billion per year unless actions are taken to mitigate these impacts.[23]

15. **Climate change.** Climate change is expected to exacerbate the impact of development pressures on the subregion's economic activities, natural resources and livelihoods with profound effects on the population. The geographic and socio-economic features of the GMS make it particularly vulnerable to climate change. Large extents of low-lying coastal areas with high concentrations of infrastructure and populations are exceedingly vulnerable to sea level rise. Key economic sectors of the GMS such as agriculture with its high dependence on rain-fed farming in the highlands and on aquaculture and irrigated agriculture in the lowlands and deltas, energy, particularly hydropower, and tourism are all highly dependent on climatic conditions. Climate change is likely to affect rural poor populations disproportionately due to the lack of adequate social safety nets. Climate related impacts can have cascading cumulative effects that compound the above threats. Prolonged extreme weather events that affect food and energy production, and in turn affect livelihoods and employment, force greater numbers to live in poverty. Recent studies have suggested that the cost of climate change could be as high as 6.7 percent of GDP per year by 2100 in Thailand and Viet Nam through impacts on infrastructure and natural resources.[24]

[20] GIS-based zonal summary statistics extracted from BCI corridor outline plus GIS databases of Ministry of Industry Mines and Energy, Cambodia; Ministry of Energy and Mines (MEM), Lao PDR-Dept. of Electricity-Power Sector Planning Division; and Ministry of industry and Trade, Viet Nam

[21] GIS Database of MEM Lao PDR, Department of Electricity, Power Sector Planning Division

[22] GIS Database of MIME, Cambodia

[23] CEP-BCI, 2011. SEA of Viet Nam's Power Development Plan

[24] ADB (2009). The Economics of Climate Change in Southeast Asia: A Regional Review

III

THE RESPONSE BY GMS COUNTRIES: CEP-BCI (2006-2011)

16. The importance of addressing environmental concerns in the GMS ECP is strongly recognized by the GMS countries. Protecting the environment and promoting sustainable use of natural resources was embodied as one of five strategic thrusts of the ECP SF (2002-2011). An environmental program was listed as one of 11 flagship programs under the strategic framework, giving rise to the CEP-BCI (2006-2011). Recognition of environmental issues is clearly reflected in the statements of the GMS Ministers and GMS Environment Ministers. At the GMS Ministers meeting in August 2010, the ministers acknowledged climate change and the environment to be amongst the top three medium-term priorities for the subregion along with food security, and energy sufficiency and efficiency. The vision for the next decade of GMS cooperation was captured in the joint statement that highlighted the need for 'balanced growth with diversified growth drivers'.[25] It was noted that the medium term priorities are 'mutually interlinked in complex ways' and need to be addressed through collaborative efforts, combining sound management of natural resources and social considerations. The ministers called for improved cross-sector coordination between sector management agencies, and for more coordinated investments in the GMS economic corridors. Acknowledging the significant and tangible progress of the past, especially in physical connectivity, the ministers' statement noted the need for greater effort on software issues such as addressing social and environmental concerns, trade and economic linkages.

A. PROGRAM DESCRIPTION

17. In 2005, the GMS Environment Ministers endorsed the CEP-BCI (2005-2011) which consolidated environmental initiatives under a single integrated program.[26] The vision of the program is to achieve a poverty-free and ecologically rich GMS by mainstreaming sound environmental management across all ECP sectors to enhance their development impact and sustainability. The program, considered a first phase of a longer term intervention, is administered by ADB under a Regional Technical Assistance Program (RETA 6289) of $36.11 million equivalent, co-financed by the Governments of Finland, the Netherlands and Sweden and the Poverty Reduction Cooperation Fund supported by PRC.

[25] GMS in the Next Decade: New Frontiers of Cooperation – Joint Ministerial Statement of 16th Ministerial Meeting, Hanoi, Viet Nam, 20 August 2010

[26] Joint Ministerial Statement, 1st Meeting of the GMS Environment Ministers, 25 May 2005, Shanghai, PRC

18. The first phase of the CEP-BCI was implemented to pilot a biodiversity conservation landscape planning approach to address current and emerging environmental challenges in the GMS. Anchored in the GMS ECP, and focusing primarily on the GMS economic corridors, the CEP-BCI aims to mainstream sound environmental management across key development sectors to enhance the development impact and sustainability of the ECP. The program has five components: i) environmental assessment of economic sector strategies and corridors; ii) biodiversity conservation corridors; iii) environmental performance assessments and sustainable development planning; iv) capacity development for environmental management; and v) program management and sustainable financing. The first phase will be completed by 31 December 2011.

B. ACHIEVEMENTS

19. The program's major achievements to date include:

i. Testing, implementation and capacity development for a range of environmental and social planning and safeguard methods and tools:
   a. Conducting five strategic environment assessments (SEAs) in support of energy, tourism, and provincial level land-use planning;
   b. Application of decision support tools such as spatial multi-criteria analysis (SMCA) to balance economic, social and environmental outcomes;
   c. Sustainable financing and improved land use management for poor rural communities in conservation corridors and landscapes;
   d. Implementation and replication of national Environmental Performance Assessment (EPA) reporting systems.

ii. Integration of SEA results into national socio-economic development plans – results of a recent SEA on power development in Viet Nam have been incorporated into the national Power Development Plan VII for 2011-2015;

iii. Uptake and partnership with other GMS working groups and ADB sectors:
   a. Co-financing support for the ADB Alternative Energy Technical Assistance;
   b. Technical support and capacity building of the regional power trade coordinating committee (RPTCC) with the view of undertaking an SEA of regional power development planning;
   c. A request for CEP-BCI to complete an environment and climate screening of the GMS ECP SF(2012-2022); and,
   d. An ADB request to support the regional Working Group on Transport with an environmental safeguards assessment.

iv. Replication of BCI approaches through three country technical assistance programs in Cambodia, Lao PDR, and Viet Nam ($69 million in grant and loan funds) under the Biodiversity Conservation Corridor (BCC) Investment Program.

C. KEY LESSONS LEARNED

20. Three independent evaluations of CEP-BCI (2006-2011) were conducted by: i) ADB's Operations Evaluation Division (OED) in 2008; ii) SIDA, jointly with the Governments of Finland and the Netherlands, in 2009; and iii) Finland's Ministry of Foreign Affairs in 2011. The findings of all three evaluations were mainly positive and in agreement with each other. Many of the evaluation recommendations were implemented under CEP-BCI (2006-2011) and have been addressed in the design of CEP-BCI (2012-2016). Major findings and lessons learned from the pilot phase are summarized in the following:

21. **Strategic Environmental Assessments.** The CEP-BCI and partner countries have promoted greater appreciation of SEA as a valuable planning tool to internalize environmental and social considerations at the upstream stages of planning. The request from Viet Nam for support for an SEA on the national Power Development Plan VII and the integration of its recommendations in to Vietnam's PDP VII demonstrates such acceptance and application of the methodology with significant results. Regional SEA capacity

has been further established at the national level in a number of key sectors. A request for further assistance from Water Resources and Environment Administration (WREA's) Department of Environmental and Social Impact Assessment in Lao PDR demonstrates the increasing likelihood of its institutionalization. Unfortunately, national and sector policy frameworks still generally lack mandatory and/or voluntary provisions to adopt and enforce the results of SEAs. Geographic Information System (GIS) capacity and the use of spatial analysis and other analytical planning tools greatly enhanced the capacity to undertake sound land use planning.

22. **Biodiversity Conservation Corridors.** The BCI component has demonstrated three important lessons. Firstly, the integrated conservation and development approach has proved a sound instrument for linking development to conservation and for targeting activities in a manner that ensures benefits to women, ethnic minorities and the poorest families. Secondly, although corridor-based conservation initiatives are showing promise, there is a need for better links with and adequate funding and technical support for protected areas in the corridors. Thirdly, it has been shown that the increased competition for land, amplified by the surge in FDI, means that traditional sectoral management approaches are inadequate to support sound decision-making that internalizes significant trade-offs. The value of essential ecosystem functions goods, services and flows supported by conservation landscapes need to be reflected in land allocation decisions and similarly considered in viability assessments of sector development programs and projects.

23. **Environmental Performance Assessments.** EPA has been well accepted as an environmental management tool, and is reflected in the successful establishment of EPA national implementing nodes in GMS countries. Although EPA has not yet been institutionally linked to reporting systems for Multilateral Environmental Agreements (MEAs) or MDGs there is excellent potential to do so and will be pursued under CEP-BCI (2012-2016). Improved national capacity to benchmark environmental performance and monitor socio-ecological conditions is increasingly enabling GMS governments to self-assess their performance in achieving national environmental management targets. Scaling up EPA and strengthening social monitoring frameworks will be actively pursued under CEP-BCI (2012-2016).

24. **Capacity development.** Technical capacity building has delivered demonstrable benefits across all sectors. Most importantly it has developed increasingly uniform capability levels needed to generate effective cooperation across GMS member countries. The program will focus on further development of organizational and institutional capacities under CEP-BCI (2012-2016) on this basis.[27]

25. **Program management.** The geographic focus of the program on the GMS economic corridors has: i) allowed assessment of actual impacts on livelihoods in specific geographic landscapes; ii) facilitated cross-cutting and geographic programmatic coherence at a subregional level as well as among the components; and iii) provided a platform for addressing cross-sectoral challenges. The EOC has played an effective role as secretariat to the WGE and as a provider of technical and capacity building support. The EOC now needs to be further developed as a knowledge and information hub with strengthened support linkages among the EOC, National Support Units (NSUs) and the Working Group on Environment (WGE). During the CEP-BCI Phase I, climate change emerged and was addressed through a series of cross-cutting responses. Program responses addressed climate change adaptation and reduced emissions from deforestation and forest degradation (REDD) based on the high priorities GMS countries placed on these issues. However, its treatment as a cross-cutting theme resulted in distinct yet only modest achievements. Consequently, climate change adaptation and mitigation will be addressed under a separate single climate change component to yield expanded results in the CEP-BCI (2012-2016).

[27] See Section V. D, Cross-cutting Issues: capacity development, paragraph 59

IV

DESIGN OF CEP-BCI (2012-2016)

A. DESIGN CONSIDERATIONS

26. Despite the achievements of CEP-BCI (2006-2011), GMS-wide environmental indicators are still trending downwards, development pressures remain and in many cases have intensified, and new ones are becoming increasingly significant. At least partly due to the CEP-BCI pilot phase, GMS governments are becoming increasingly aware and concerned about the role of the environment in achieving inclusive and sustainable economic growth. GMS countries are striving to incorporate environmental considerations across all development sectors. Progress is being made, but a number of important challenges remain and need to be further addressed:

i) Inadequate use of effective environmental safeguards and planning and management tools by key development sectors in GMS ECP;

ii) Continuing degradation and fragmentation of key conservation landscapes across the subregion, undermining the quantity and quality of ecosystem services they provide;

iii) Lack of effective integration of climate change adaptation and mitigation strategies into development plans of key economic sectors causing reduced returns on investment and threatening the livelihoods of rural populations in the GMS;

iv) Insufficient funding for effective environmental management, ecosystem protection and biodiversity conservation in the GMS; and

v) Inadequate human resource and institutional capacity for environmentally sound development planning and management in the GMS.

27. **Program design criteria.** Design of CEP-BCI (2012-2016) builds on the lessons learned from CEP-BCI (2006-2011). The CEP-BCI (2006-2011) in turn evolved from the early achievements of the GMS Environment Sector program that began with the establishment of the WGE in 1995. As such, CEP-BCI (2012-2016) should be seen as the next step in an ongoing, concerted effort by multiple development and implementing partners to strengthen the means to address environmental issues in a regional development context.[28] Other design criteria include addressing current and emerging environmental pressures within the GMS ECP and the economic corridors,[29] alignment with GMS countries' and ADB's economic development and investment strategies and frameworks,[30]

[28] Phasing of the CEP-BCI program is explained under the section entitled Program Phasing (see Paragraph 38 and Table 1)

[29] See Section I. Background

[30] See Paragraphs 29-37

addressing the cross-cutting issues of gender ethnicity and poverty,[31] emphasizing institutional capacity development,[32] and catalyzing and capitalizing on regional synergies.[33]

28. **Member country needs.** Program design follows recommendations made by WGE meetings in July and November 2009 which emphasized: i) building on the achievements to date, ii) a continued focus on poverty reduction, iii) the importance of ecosystem health, iv) an increased focus on climate change issues, and v) support for sustainable financing which includes REDD and Payment for Ecosystem Services (PES) activities. This document reflects the outcome of an extensive consultation process that commenced in January 2010 and concluded with an endorsement by the WGE at their 17th Annual Meeting held in Siem Reap, Cambodia, in May 2011. Specific feedback and guidance provided by member countries and development partners encompassed the following key issues:

- The importance of channeling policy recommendations in line with ECP sectoral planning processes, including ECP SF, and Economic Corridor Forum (ECF) development processes;
- A general recognition by all GMS countries of the priority need to develop robust baseline data – ideally disaggregated by gender and ethnicity – to strengthen national monitoring and assessment capabilities;
- A focus on transboundary biodiversity landscape activities including: strengthening institutional capacities for environmental monitoring and carbon budgeting, climate adaptation costing, enhancement of climate resiliencies and food-security linkages, and improved cooperation with civil society organizations and groups;
- A strong recommendation that Biodiversity Conservation Corridor Initiative (BCI) priorities should include: scaling-up forest protection, revolving-funds for livelihood support, livelihood and social safety nets, improving value chain and market linkages for agro/ forestry products, renewable energy promotion and productive end-use, and gender and ethnic minority friendly eco-tourism;
- The need to develop landscape management planning approaches to underpin ecosystem services, climate change adaptation and REDD/ REDD+ preparedness;
- The need to develop sustainable financing for rural development/ biodiversity conservation, including PES and promotion of public private partnership models;

Throughout the consultation period, the WGE stressed the importance of capacity development as a major priority with a focus on environmental education and research networks, institutional capacity development for government agencies, strengthened policy frameworks, finance mobilization, and compliance monitoring.

B. ALIGNMENT WITH FRAMEWORKS AND POLICIES

29. CEP-BCI (2012-2016) has been designed to ensure alignment, not only with regional environmental imperatives and the needs of member countries, but also with a number of important regional ADB framework strategies, guidelines and policies. These include the GMS Economic Cooperation Program Strategic Framework 2012-2022 (ECP SF 2012-2022), the Phnom Penh Plan (PPP) for Capacity Development and various policies and strategic initiatives including ADB Country Partnership Strategies (CPS), Safeguard Policy Statement (2009), Policy on gender and development (1998), gender mainstreaming criteria guidelines (2010), and the GMS Regional Cooperation Operations Business Plan (2011-2013).

[31] See Paragraphs 56-58

[32] See Paragraph 59

[33] See Paragraph 60

30. **GMS Economic Cooperation Program Strategic Framework (ECP SF 2012-2022).** The simultaneous formulation of the ECP SF (2012-2022) and the CEP-BCI (2012-2016) have enabled a close alignment of the design and development process for the two frameworks. The draft ECP SF places a high priority on the environment and emphasizes the need for better balancing development and environment across all sectors.[34] Indeed, the CEP-BCI (2012-2016) will contribute directly to all the regional level impacts in the new ECP SF (2012-2022), namely: i) increased economic growth and reduced poverty; ii) reduced GHG emissions; and iii) improved biodiversity conservation. Although the overall direction of the draft ECP SF (2012-2022) does not significantly change, the CEP-BCI (2012-2016) will contribute to a number of the changes in emphasis. Elements of the new ECP SF (2012-2022) of particular relevance to CEP-BCI and how the design aligns with them include:

- Software aspects of cooperation – strengthened environmental management is now emphasized by all components of CEP-BCI (2012-2016) by providing support to implementing partners in the form of methodological tools, technical and policy assessments and policy support.
- Selectivity – CEP-BCI (2012-2016) has selectively focused on four key sectors to mainstream environmental considerations in the ECP SF (2012-2022), namely: i) transport, ii) energy, iii) tourism, and (iv) agriculture, with a focus on economic corridors.
- Stronger linkages across different sectors – this is a key focus;, strengthening of, and support to, WGE, other GMS working groups and forums, and NSUs will drive collaboration and cooperation for environmental mainstreaming in the above mentioned four sectors.
- Focus on GMS economic corridors – CEP-BCI (2012-2016) moves from a pilot phase to consolidating interventions and activities in the three main economic corridors.
- Increased regionality – this is a strategic shift in emphasis in CEP-BCI (2012-2016) and is now addressed in the program's four components, especially at output, outcome and impact level.
- Climate change considerations – CEP-BCI (2012-2016) promotes the development of climate resilient and low carbon investments across the selected development sectors.

The draft ECP SF (2012-2022) embodies a theory of change linking national sectoral institutions with sector results (outputs and outcomes). These, in turn, contribute to regional level outcomes and impacts. In this vein, **sector strategies** for transport, energy, tourism and agriculture each represent significant challenges, but also important opportunities to CEP-BCI (2012-2016) for environmental mainstreaming.

31. **The energy strategy** has and will continue to be of particular importance because of the increasing concern over energy security and efficiency in the subregion. In the energy sector the GMS ECP (2012-2022) is promoting the development of regional power trade in the subregion, including development of grid interconnection infrastructure. EOCs engagement with the RPTCC has established a basis for undertaking SEAs of the energy sector at the subregional level. In collaboration with the Subregional Energy Forum, the CEP-BCI (2012-2016) will support promotion of renewable energy, energy efficiency, and carbon capture and storage options. It will serve as a repository of information to assist future energy planning in the GMS. Environmental safeguard compliance and monitoring capacity of energy sector agencies will be further strengthened. These collaborative arrangements create opportunities for incentivizing environmental mainstreaming by highlighting the role of sound environmental planning in increasing the economic and financial returns to investments.

[34] GMS Economic Cooperation Program; a New Strategic Framework. Working Group on Environment 17th Annual Meeting, Siem Reap, Cambodia, 24-25 May 2011

32. **The transport sector strategy** aims to promote trade and investment by reducing non-physical barriers to the movement of people, goods, and services along three major transport linkages, namely the East-West (EWEC), North-South (NSEC), and Southern (SEC) Economic Corridors. Recognizing the imperative of safeguarding the environment from major infrastructure development investments, the CEP-BCI will support sustainable transport planning and strengthen safeguard systems to maximize and sustain the economic and social benefits from infrastructure investments in these corridors. SEAs of sub-sector strategies (e.g., railway) and guidance on green infrastructure development will improve transport planning, while capacity building will strengthen implementation and monitoring of safeguards. CEP-BCI will also support efforts to reduce GHG emissions in transport corridors – especially those resulting from increased freight movement.

33. **The tourism sector,** a major source of revenue for most GMS countries, aims to "Develop and promote the Mekong as a single destination, offering a diversity of good quality and high-yielding subregional products that help distribute the benefits of tourism more widely; and contribute to poverty reduction, gender equality, empowerment of women and ethnic minorities, and sustainable development, while minimizing any adverse impacts". However, the combined impacts of environmental degradation and climate change are likely to degrade the value of tourism assets, decreasing the tourism appeal of the GMS as a regional destination. CEP-BCI (2006-2011) supported SEAs of national and subregional tourism plans have helped to identify trade-offs, guided the development of national and regional ecotourism and provided environmental safeguards advice and technical support. Further planning support to identify environmentally sound pro poor tourism approaches and to strengthen climate change adaption strategies and resiliency to climate variability will be implemented under the CEP-BCI (2012-2016) in collaboration with the GMS Tourism Working Group and Mekong Tourism Coordinating Office.

34. **The agriculture sector** is of strategic importance, as subregional cooperation in agriculture will help reduce poverty in the GMS by promoting sustainable rural livelihoods, food security, and agricultural trade. CEP-BCI closely compliments the GMS Core Agriculture Support Program II (2011-2015) (CASP II), particularly in connection with Pillar 2 (i.e., development of climate-friendly agriculture and natural resource management) and Pillar 3 (i.e., promoting rural renewable energy technology and eco-friendly supply chains). Synergies between CEP-BCI (2012-2016) and CASP II will include supporting implementation of climate resilient, technology-based advances in agriculture production, processing and trade, as well as biofuel/biogas in the GMS economic corridors in order to enhance efficiency and promote climate resilient, sustainable development.

35. **ADB Country Partnership Strategies (CPS).** CEP-BCI (2012-2016) will complement ADB's CPS by strengthening linkages between regional and country-specific initiatives. Although CPSs vary significantly from country to country, areas of overlap with CEP-BCI are strong and clear, presenting excellent opportunities for synergies among regional and country initiatives. These synergies are recognized and have been emphasized in the design of CEP-BCI (2012-2016). Examples include: i) support for implementing the results of sector and corridor SEAs in relevant country programs under Component 1; ii) technical support under Component 2 for up-scaling of country investments in Biodiversity Conservation Corridors;[35] iii) plans under Component 3 for knowledge capitalization and establishment of an information repository on energy efficient technologies in the EOC for use by member countries; and iv) Payment for Ecosystem Services (PES) mechanisms, valuations and baselines developed under Component 4 as the basis for the design of CEP-BCI supporting and strengthening country PES initiatives.

[35] ADB R-PPTA 7459. GMS Biodiversity Conservation Corridors in Cambodia, Lao PDR and Viet Nam

36. **ADB Environmental Directions (2011-2020).** CEP-BCI (2012-2016) is closely aligned with ADB's Environmental Directions; through components 1, 2 and 4 respectively. CEP-BCI addresses the three priority areas of ADB's Environmental Directions (2011-2020) which are:

i. Promoting transition to sustainable infrastructure;

ii. Improving natural resource management and maintaining ecosystem integrity; and

iii. Enhancing environmental governance and management capacity.

In addition, Component 3 addresses the cross-cutting operational priority of promoting low carbon growth and climate adaptation to tackle both the causes and consequences of climate change.

37. **Phnom Penh Plan (PPP).** The PPP is a regional program for capacity development under the Human Resource Development Strategy of the ECP. It is designed to help develop a core group of motivated development leaders and managers who are competent to manage the complex and challenging GMS development agenda. It has the following attributes:

- Providing learning programs tailored to the needs of GMS civil servants.
- Integrating the national and regional dimensions of development planning and management.
- Identifying skills and subjects of the highest relevance to development management.
- Adopting a variety of unique and innovative approaches, inputs and incentives to support capacity building.

Aligning CEP-BCI (2012-2016) with the PPP will not only improve access to capacity building initiatives and ensure that capacity development under CEP-BCI is in line with GMS needs, but will also allow the program to influence capacity development more generally with the potential to mainstream environment into capacity building activities in the subregion.

V

CEP-BCI (2012-2016) PROGRAM FRAMEWORK

A. PROGRAM PHASING

38. Recognizing that CEP-BCI's vision of "a poverty-free and ecologically rich GMS" will not be achieved in the short-term, a phased approach has been developed, including a pilot phase (2006-11), a scaling-up phase (2012-16), and a consolidation phase (2017-22). Table 1 summarizes the technical focus, the capacity and institutional development aims, the regional aspects and the funding strategies of each phase.

B. PROGRAM GOALS, OUTPUTS AND DELIVERABLES

The impact of CEP-BCI (2012-2016) is "Improved biodiversity conservation and climate resilience across the GMS". CEP-BCI (2012-2016) has been aligned with the draft 10-year ECP SF (2012-2022)[36] and will therefore also contribute towards its broader impact. CEP-BCI indicators to measure performance at this level are that by 2022: i) forest cover and stocking density in the GMS is maintained or increased; ii) habitat connectivity in the GMS is stabilized or increased; iii) key ecosystem services (e.g. water) flows and quality are maintained or increased; iv) selected indicator species populations are stabilized or increased in conservation landscapes; v) livelihoods (cash and non-cash elements) of at least 50 percent of participating households in the conservation landscapes are improved; and vi) at least 40 communes/ village-clusters in conservation landscapes have climate change adaptation/ disaster-risk reduction plans.

39. **The outcome of CEP-BCI (2012-2016)** is "Pro poor environmental management and climate-friendly measures adopted by the GMS Economic Cooperation Program". Performance indicators for this are that by 2016: i) increased number of ECP plans and investments with improved environmental and social safeguards; ii) increased sector investments leveraged for improving climate resilience and environmental management in the GMS; iii) Draft bi-lateral or multi-lateral arrangements on managing cross-border biodiversity conservation corridors/ protected areas are agreed.

40. This outcome will be achieved through the following four components:

1. Improved environmental planning systems, methods and safeguards;
2. Management of transboundary biodiversity conservation landscapes and local livelihoods improved;

[36] The design of CEP-BCI (2012-2016) has been aligned with the emerging direction of the new ECP SF. See Section IV C: Alignment with Frameworks and Policies, Paragraph 30

Focus	CEP-BCI (2006-2011): Pilot Phase	CEP-BCI (2012-16): Scaling Up	CEP-BCI (2017-22): Consolidation
	CEP-BCI Technical Components		
Planning methods and safeguards	Pilot SEAs of sector and corridor, development and institutionalization of EPA in member countries.	Upgrading sustainable development planning capacities and creating enabling policies for their use in the GMS economic and biodiversity conservation corridors.	SEA institutionalized as a planning tool across all development sectors and EPA environmental monitoring systems providing and exchanging information across the region.
Conservation corridors	Implementation of conservation and sustainable livelihood activities undertaken in pilot BCI sites.	Scaling up of livelihood activities at the economic corridor and trans-boundary conservation corridor levels, including gender and ethnic minority-sensitive activities.	Fully connected, healthy ecosystems supporting sustainable livelihoods and economic development needs including the needs of women and ethnic minorities.
Climate change	GMS regional environment support needs assessed and climate change identified as a priority.	Development and testing of climate resilient and low carbon technologies for livelihoods and sector investment plans.	Climate resilient gender and ethnic minority-friendly infrastructure and livelihoods implemented across all development sectors in GMS economic and biodiversity corridors.
Capacity building	Mainly technical capacity development.	Greater focus on organizational and institutional capacity development, with technical capacity building in new areas (e.g., climate change).	Good and more evenly balanced environmental management capacity and enabling policies in all GMS member countries.
	Institutional Development		
WGE	WGE strengthening and technical support from Technical Advisory Panel.	Institutional capacity development of WGE to strengthen linkages with other GMS development sectors.	WGE governance structures and management regimes embedded across all GMS development sectors.
EOC/NSU	EOC establishment under ADB auspices as the secretariat to WGE.	GMS-ization of EOC and support for the establishment and strengthening of NSUs.	EOC is an environmental knowledge hub providing technical support and information exchange among GMS and, where appropriate, ASEAN countries.
	Regionality and Funding		
Regional focus	Regional program with mainly national benefits.	Both national and regional benefits emerging clearly.	Consolidation of regional environmental, institutional and program connectivity within the GMS and, where appropriate, ASEAN.
Program funding	ADB and donor grant-funded pilots.	Grant-funded support and mobilization of public and private funding for testing sustainable financing and PES systems in selected countries.	Sustainable financing for ecosystem management and climate resilient development in place.

Table 1.
CEP-BCI Phasing: Technical Focus and Key Characteristics

3. Climate resilient and low carbon strategies developed;
4. Strengthened institutions and financing for sustainable environmental management.

Institutional, organizational and human resource capacity development is incorporated as a cross-cutting priority across all components, as are the cross-cutting themes of poverty, gender and ethnicity. The Design and Monitoring Framework (DMF) is presented in **Appendix 1** and a proposed action plan is shown in **Appendix 2**.

Component 1: Improved environmental planning systems, methods and safeguards.

41. Component 1 will strengthen GMS ECP development strategies, plans and investments in the GMS economic corridors by incorporating environmental

and social considerations at upstream design and planning stages. It will build on the positive pilot phase experiences of SEA, GIS and development planning tools, EPA applications and environmental and social safeguards strengthening. This component will inform planning processes and facilitate enabling policy conditions to internalize social and environmental costs and enhance the performance of investments in key development sectors. The aim is to mitigate negative impacts from development in economic corridors and conservation landscapes and enhance opportunities to promote pro-poor, gender and ethnically sensitive 'green' development strategies.

42. Major activities[37] under Component 1 include: i) building subregional and national SEA capacities; ii) capacity development for efficient and effective environmental and social safeguards; and iii) strengthening GMS country environmental and social monitoring capabilities, including for Monitoring and Evaluation (M&E) frameworks using gender and ethnically disaggregated data-sets. These activities will be supported by appropriate development partners or consultants who will work under ToRs approved by the National WGE Focal Points, and will be supported by relevant EOC staff, as appropriate.

Component 2: Management of transboundary biodiversity conservation landscapes and local livelihoods improved.

43. This component will promote the effective management of biodiversity conservation in critical trans-boundary landscapes in the GMS. It will support sustainable livelihoods for local communities and also enhance performance of investments in the economic corridors by maintaining and improving the flow of ecosystem goods and services. Emphasis will be on developing gender and ethnic minority friendly livelihoods, and establishing enabling policies to secure sustainable financing for the effective management of these landscapes. In Cambodia, Lao PDR and Viet Nam, Component 2 will support and be implemented in close collaboration with the recently approved ADB funded GMS Biodiversity Conservation Corridors (BCC) Project.[38] The BCC Project will focus on institutional strengthening for conservation corridor planning and management, gender and ethnically inclusive sustainable livelihoods, and community-based corridor enrichment activities. CEP-BCI will compliment the BCC Project by concentrating on 'software' aspects, supporting capacity development and assistance for landscape analysis, management, planning and monitoring tools, to ensure effective management at the landscape level. Component 2 is also expected to be complimented by a GMS regional program on biodiversity and forest conservation[39] funded by the Global Environment Facility (GEF).

44. Key activities under Component 2 are: i) a detailed technical and management review to improve understanding of biodiversity conservation landscapes across the GMS; ii) support for improved recognition of ecosystem services benefiting local livelihoods; iii) strengthening of biodiversity conservation corridor management and monitoring in the biodiversity conservation landscapes; and iv) support for improved compliance with international protocols in wildlife, timber and natural resources trade.

Component 3: Climate resilient and low carbon strategies developed.

45. By supporting climate change mitigation and adaptation activities, Component 3 will promote climate-friendly development within the GMS. It will promote integration of climate change considerations into the planning and

[37] Detailed indicative activities are presented in the CEP-BCI (2012-16) Action Plan in Appendix 2

[38] ADB. November 2010. Report and Recommendation of the President to the Board of Directors on the Proposed Loan and Grants for Kingdom of Cambodia, Lao People's Democratic Republic, and Socialist Republic of Viet Nam: Greater Mekong Subregion Biodiversity Conservation Corridors Project

[39] Currently under preparation

implementation activities of key development sectors in order to strengthen climate change risk and vulnerability assessment capacity, and reduce CO_2 emissions from sector activities and land use changes. Component 3 will strengthen adaptation capacities at the national and corridor levels to better manage climate change-related impacts on infrastructure development (energy, tourism and transport sectors). Activities at the local level under this component will mitigate impacts on natural ecosystems, local livelihoods and food production systems through the promotion of gender sensitive adaptation and disaster preparedness strategies inclusive of ethnic minorities.

46. Activities to be undertaken under Component 3 are: i) supporting climate resilience in the agriculture and tourism sectors; ii) encouraging low carbon transport and energy development; and iii) supporting country REDD readiness and implementation. Details are provided in Appendix 2.

Component 4: Strengthened institutions and financing for sustainable environmental management.

47. This component will support country-specific institutional capacity development activities to strengthen regional cooperation and collaboration on environmental management within the overall framework of the GMS Economic Cooperation Program.[40] Measures to promote financial sustainability and up-scale investments to maintain ecosystem services and improve environmental quality in the GMS (by mobilizing public and private financial resources) will also be undertaken. CEP-BCI will engage the GMS Business Forum and other private sector associations to mobilize funding for high-value, low impact, value-added investments designed to reduce poverty and sustain environmental values. Mechanisms to offset biodiversity losses from economic development activities (e.g., mining, logging), and to leverage philanthropic support will be supported. Measures to incentivize conservation landscape management via PES systems (e.g. hydropower, tourism, urban water supply) and GMS country capture of global carbon finances will also be supported.[41]

48. Key activities under Component 4 are: i) strengthening subregional, national and sub-national level capacity for environmental management and monitoring with particular emphasis on the institutional roles of the WGE and NSUs for delivering subregional outcomes and impact; ii) providing policy support to catalyze sustainable financing; and iii) facilitating public-private-partnerships for conservation and ecosystem management.

C. IMPLEMENTATION ARRANGEMENTS

49. As shown in Figure 1, the CEP-BCI (2012-2016) will be implemented by relevant government agencies and other implementing partners, and steered and coordinated by WGE with support from the EOC. The program is closely aligned with the draft ECP SF (2012-22),[42] and will liaise closely with national GMS Secretariats and ECP focal point agencies to foster multi-sectoral integration and coordination National WGE focal point officers and the NSUs will act as points of contact for the program in member countries. The ADB will provide technical, financial and administrative support to CEP-BCI implementation.

50. Following the GMS Economic Cooperation Program Strategic Framework (2012-22) and under the direction of the Environment Ministers Meeting, the WGE will manage the program and collaborate with other development sectors and subregional sectoral groups, including the Working Group on Agriculture (WGA), RPTCC, GMS Energy Forum, Mekong Tourism Coordinating Office, and the Subregional Transport Forum. At the national level, WGE focal point agencies supported by the NSUs, will take the lead

[40] See indicative activities under Output 4.1 in the CEP-BCI (2012-2016) Action Plan in Appendix 2

[41] See indicative activities under Output 4.2 in the CEP-BCI (2012-2016) Action Plan in Appendix 2.

[42] Alignment with the GMS Strategic Framework (2012-22) is described in Section IV. C, Paragraph 30.

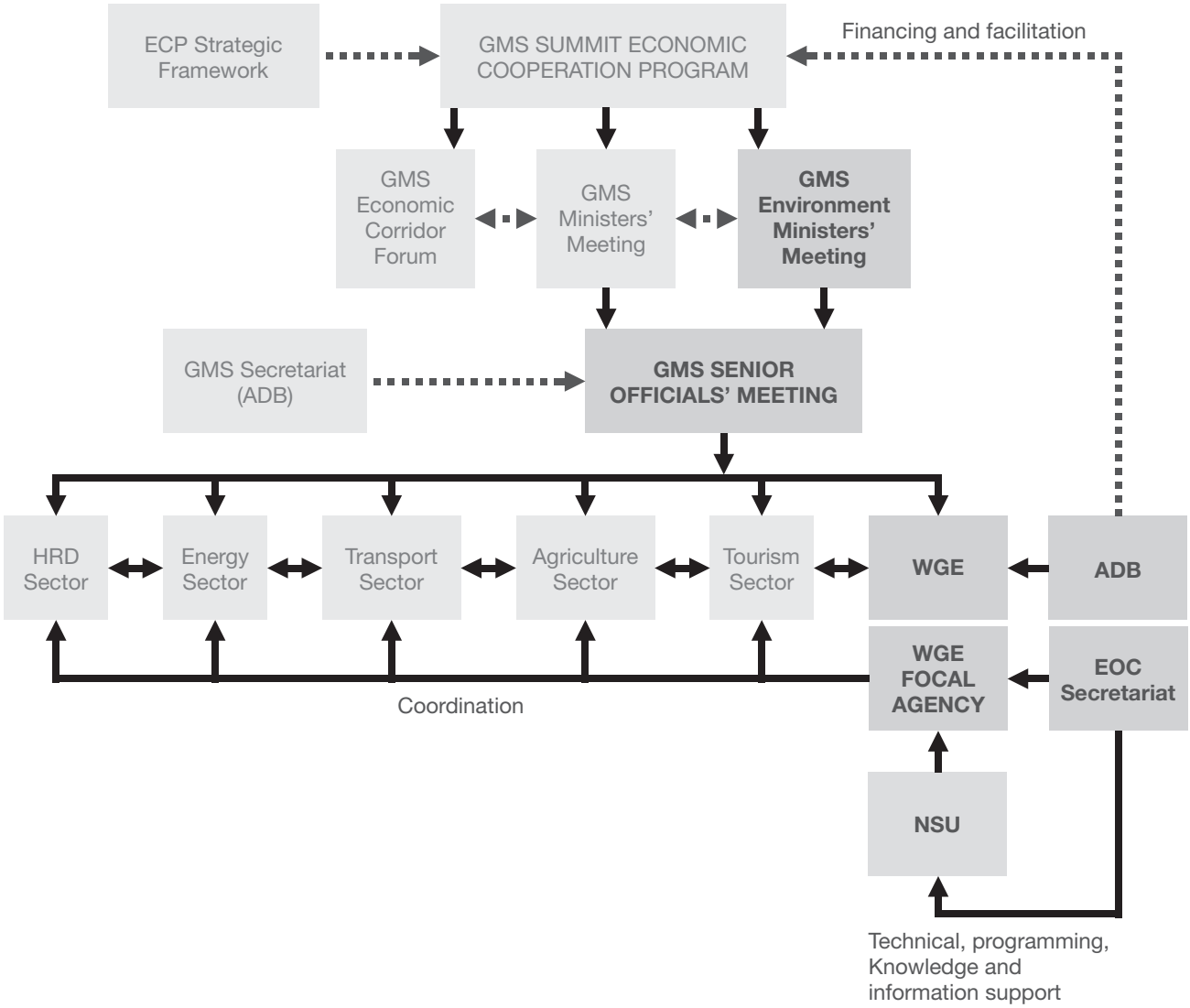

Figure 1.
CEP-BCI (2012-2016) Organisational Structure

in forging stronger links with key development sectors. Strengthened by functional NSUs, WGE focal point officers will assume a more active role in designing and implementing the program. They will facilitate effective dialogue and action among key development sectors to agree on detailed annual work plans for approval at the annual WGE meetings. To further strengthen linkages with other sectors, two officials from each sector and at least one member from each sector working group will be invited to attend WGE meetings, as appropriate.

51. Country-specific action plan and institutional mapping will continue under CEP-BCI (2012-2016), and the results will be used to identify appropriate entry points for environmental mainstreaming and for engaging other development sectors. These country specific consultations will also identify potential partners among other bilateral and multilateral projects/ programs, and will be used to develop cooperation frameworks for cross-sector cooperation and institutional capacity development in each GMS country.

52. Wherever possible, initial engagement of other sectors will target win-win situations to promote constructive dialogue. The agriculture and tourism sectors in particular present a number of opportunities for such cross-sector cooperation on environmental issues. For example, agricultural production in the GMS is highly reliant on intact watersheds and functional ecosystems to provide the regulating services on which it depends, such as water for irrigation, soil nutrient cycling, pollination, pest regulation, etc. Similarly, the tourism sector presents valuable opportunities for environmental mainstreaming and cross-sector synergies through the mitigation of negative environmental impacts and by capitalizing on positive interactions such as nature, cultural and eco-tourism, which all demonstrate clear win-win situations for conservation, poverty reduction and the cross-cutting issues of gender and indigenous peoples' inclusion. In addition, environmentally friendly tourism is self-financing and offers sustainable financing opportunities for conservation.

53. Although program management will progressively shift to the GMS countries and NSUs, the EOC will continue to act as secretariat to the WGE and retain its core functions of facilitation, coordination and securing financing. Consistent with the devolution of implementation functions to member countries, the EOC will maintain a lean presence, but will still act as a knowledge platform and subregional repository for environmental information, as well as providing services for environmental planning, monitoring, mapping and skills transfer related to the CEP-BCI program. It will continue to provide capacity development and networking support to the NSUs.

54. Table 2 shows the EOC staffing plans. During CEP-BCI (2012-2016), restructuring of the EOC will occur in two stages. From 2012-2013, it will continue to be led by an international Chief Technical Advisor (CTA) assisted by a reduced number of international and national staff based at the EOC. A GMS national to head EOC as the Chief Operating Officer (COO) will be selected during this initial transition period. International staff will devote increasing effort to supporting in-country program delivery, capacity development and institutional strengthening. From 2014-2016, the EOC will be led by a Chief Operating Officer (COO) selected from a GMS country, assisted by an international/regional CTA and supported by long-term GMS thematic coordinators, and short term international and national consultants. The planned gradual transitioning or 'GMS-ization' of the current EOC composition to the future GMS-led and staffed EOC will ensure efficient program delivery while developing the necessary national capacity to assume full responsibility for program development and implementation.

55. CEP-BCI (2006-2011) enjoyed strong support from development partners, including the Governments, Finland, Netherlands and Sweden as well as PRC's Poverty Reduction Fund. CEP-BCI (2012-2016) will seek to continue these partnerships as well as seeking support from GEF and other potential co-financing partners. CEP-BCI (2006-2011) also helped to build an informal coalition of technical partners working in environmental management and poverty reduction at the subregional level. Such partners include bilateral and multilateral agencies, regional institutions, non-governmental organizations (NGOs) and other projects and programs. The WGE's growing influence on this group and its increasingly important role of providing direction and coordination with these programs will be further supported under CEP-BCI (2012-2016).

D. CROSS-CUTTING AND OTHER ISSUES

56. **Poverty reduction.** Poverty reduction is addressed across CEP-BCI (2012-2016). Component 1 uses a range of planning and safeguard tools to promote consideration of environmental and social issues in all sectors with particular emphasis on identifying and targeting economically disadvantaged areas and vulnerable groups. It also builds provincial, national and regional baselines and monitoring systems to measure socio-economic and environmental

2006-2009	2009-2011	2012-2013	2014-2016
• COO (Int.) • BCI Task Leader (Int.) • SEA Task Leader (Int.) • EPA Task Leader (Int.) • EPA Task Coordinator (GMS) • Capacity Building Coordinator (Int.) • Outreach Specialist (Int.) • GIS Specialist (Int.) • Social Development Specialist (Int./GMS) • Knowledge and Database Specialist (GMS) • Finance Management Specialist (GMS) • Administrative Staff	• CTA (Int.) • SEA Coordinator (Int.) • EPA Task Leader (Int.) • EPA Coordinator (GMS) • Project Implementation and Capacity Building Specialist (Int.) • Outreach Specialist (Int.) • GIS Specialist (Int.) • Energy and Climate Change Coordinator (Int.) • Environmental Carbon Footprint Specialist (Int.) • Social Development Specialist (GMS) • Knowledge and Database Specialist (GMS) • Finance Management Specialist (GMS) • Administrative Staff	• CTA (Int.) • COO (GMS) in preparation • Environmental Planning and Safeguards Specialist (Int.) • Climate Change Specialist (Int.) • GIS and Knowledge Specialist (Int.) • Outreach Specialist (Int./GMS) • Capacity Development Specialist (Int./GMS) • Social and Gender Specialist (GMS) • M&E Specialist (GMS) • Thematic Coordinators (GMS) • Finance Management Specialist (GMS) • Administrative Staff **NSU Support** • At least 3 national consultants in each NSU (GMS)	• COO (GMS) • CTA (Int./regional) • Environmental Planning and Safeguards Task Coordinator (GMS) • Climate Change Task Coordinator (GMS) • GIS and Knowledge Database (GMS) • Social and Gender Specialist (GMS) • M&E Specialist (GMS) • Finance Management Specialist (GMS) • Administrative Staff **Programmatic Staff** • NSU Staff • International Consultants • National Consultants

BCI = Biodiversity Corridor Initiative; CTA = Chief Technical Adviser; COO = Chief Operations Officer; EPA = Environment Performance Assessments; GIS = Geographic Information System; GMS = Greater Mekong Subregion; Int. = international; NSU = National Support Unit; SEA = Strategic/Sector Environment Assessments

Table 2.
The EOC in CEP-BCI Phases and Proposed Transition during 2012-2016

performance as a decision tool in regard to poverty and the environment. Component 2 focuses on pro-poor activities for biodiversity conservation as a means of protecting or restoring ecosystem services in support of sustainable rural livelihoods, with particular emphasis on vulnerable upland communities, including female headed households. Component 3 will build climate change adaptation capacity, develop climate-resilient farming and livelihood systems, and support related information exchange and dissemination for uptake and use by poor rural families. Support for REDD/REDD+ under this component will benefit poor communities, as will the development of climate-proofed infrastructure such as roads and irrigation systems. Component 4 will mobilize public and private funding to promote financial sustainability and up-scale investments to maintain ecosystem services and improve environmental quality on which the rural poor depend so heavily. It will also engage the GMS Business Forum and private sector associations to mobilize investment in high-value, low impact, value-adding activities designed to reduce poverty and sustain environmental values.

57. **Gender and ethnic responsiveness.** Disparities among men and women and indigenous peoples still persist in the GMS regarding economic opportunities and access to education, health and financial services. Although women in the GMS have a higher life expectancy than men, their literacy and school enrollment rates are well below those of men.[43] The Gender Empowerment Measure, which measures the extent to which women take an active part in economic, government and political life, also shows clear gender disparities. Women, along with young children, the elderly and indigenous peoples, are generally more vulnerable to environmental degradation, as their livelihood activities are more closely entwined with these. As a result, women and indigenous peoples tend to have unique perspectives on natural resource conservation which need to be identified and capitalized on.

58. The livelihood assets approach to socio-economic monitoring at the household level used under CEP-BCI (2006-2011) showed high impact levels for the empowerment of women and also enabled the capture of gender

[43] Biodiversity Conservation Corridors Initiative (2007). Pilot Site Implementation Status Report, GMS Core Environment Program, ADB

disaggregated information such as uptake of micro-credit, access to education and health services, etc. The same approach will be adopted in CEP-BCI (2012-2016) which will support the development of gender-disaggregated monitoring systems and the capture of indigenous knowledge. Climate resilience is not gender neutral. With this understanding, the climate-proofing activities proposed under Component 3 will address both men's and women's livelihood activities in an inclusive manner. Capacity development under Component 4 will adopt gender and ethnic targets to redress current gender and ethnic imbalances in environmental management capacity within the GMS.

59. **Capacity development** under CEP-BCI (2006-2011) focused largely on technical human resource capacity across the full range of technical areas addressed by the program. Capacity development under CEP-BCI (2012-2016) is treated as a cross-cutting issue. Although technical capacity development will continue, particularly for climate change adaptation and mitigation (including REDD+ readiness), the focus will be more on organizational and institutional capacities, with particular emphasis on strengthening the WGE, and NSUs. Capacity development activities will follow the principles of the PPP[44] not only to improve access to GMS capacity building initiatives, but also to enable the CEP-BCI (2012-2016) to influence capacity development more generally and mainstream environment into capacity building activities in the GMS. Institutional mapping[45] will identify key stakeholder agencies and their roles in sustainable development planning. It will be used to assess institutional capacity building needs before drawing up detailed, country-specific capacity development plans.

60. **Managing regionality.** Like those of the overall GMS ECP (2012-2022), CEP-BCI's impact, outcome and outputs are aimed at regional and global goods, in terms of objectives, measurement, monitoring and evaluation. Although CEP-BCI activities are mainly implemented by individual member countries, they all contribute to the common vision of an ecologically rich and poverty free GMS. To achieve this vision, the program needs to be more than merely multi-national. Consequently, it will seek to create added value at the regional level through joint action, and the creation of regional networks for technical support, cooperation and knowledge exchange among the six GMS countries. Regionality is addressed by every component of CEP-BCI (2012-2016). Component 1 will support spatial and sectoral planning at sub-national, national and GMS levels and brings a regional perspective which would otherwise not be highlighted in such planning processes. Component 2 supports transboundary and regional efforts to manage biodiversity and forest landscapes. Component 3 provides opportunities for knowledge sharing, regional exchanges and developing common approaches for climate adaptation and mitigation along regional economic development corridors that span many countries. Component 4 will facilitate innovation in financing for conservation and environmental management especially by highlighting the regional cohesion and integration of the GMS. Regional targets and indicators, such as regional planning activities and transboundary conservation and environmental management initiatives are included in the DMF as a means of monitoring regional progress.

61. **Project ownership and beneficiaries.** Benefits from CEP-BCI (2012-2016) will accrue at multiple levels, including the household, community, sub-national (sectoral, provincial, corridor and landscape), national, and up to the GMS subregion as a whole. As shown in Table 3, the type of benefits received will vary significantly, but should still address the key needs of beneficiaries at each level. Project ownership is similarly important at multiple levels, and mechanisms have been put in place under CEP-BCI to promote such ownership. At the household level gender, ethnic and poverty inclusive

[44] The Phnom Penh Plan is described in Paragraph 37

[45] The plans for Institutional Mapping are described in Paragraphs 50-52

Level of Beneficiary	Type of Benefits Expected
Household in conservation landscapes	Improved and more equitable access to natural resources; improved access to land and resources by women and ethnic minorities; sustainable livelihoods based on intact ecosystem services; enhanced ethnic and gender inclusive employment opportunities based on natural resources; climate resilient livelihoods.
Communities in conservation landscapes	Improved community capacity for environmental management; better local governance for the management of natural resources; enhanced ecosystem functions, goods and services for community use; climate-proofed infrastructure (irrigation systems, feeder roads, etc.).
Sector	Improved economic investment performance; more sustainable returns on investments; climate proofed investments, enhanced synergies from cross-sector cooperation.
Economic Corridor	Improved environmental conditions; improved economic performance; green corridors, climate-resilient infrastructure.
Conservation landscapes	Increased habitat integrity and connectivity; improved national park/ protected area protection and management; enhanced watershed management; sustainable financing systems.
Provincial agencies	Devolved responsibility for sound environmental management, locally relevant environmental management plans; improved capacity and governance for natural resource management.
National agencies and civil society	Enhanced national capacity for environmental management; better environmental planning and safeguard systems; improved environmental and socio-economic monitoring frameworks; climate-proofed national development sectors; sound sustainable environmental financing systems; member countries ready to benefit from REDD(+).
GMS subregion	Improved and better-balanced environmental management capacities across member countries; closer cross-border cooperation on biodiversity conservation; enhanced transboundary wildlife migration; better enforcement of illicit trade.

Table 3.
Beneficiaries and expected benefits

livelihood activities are emphasized in order to strengthen decision-making roles of those who are most in need and who are also the most dependent on natural resources and the environment. Community action on the environment is emphasized under Component 2 with the objective of enhancing capacity and local governance for natural resource management at this level. Sub-nationally, the corridor and landscape level focus (with strong spatial overlaps) aims to promote strong, joint ownership and cooperation among development sectors, local authorities and those responsible for conservation and protected area management. National and subregional ownership is addressed under CEP-BCI (2012-2016) by activities aimed at strengthening the role of the NSUs, national Focal Points and the WGE.[46]

E. MONITORING, REPORTING AND EVALUATION

62. Three types of monitoring will occur under CEP-BCI (2012-2016): i) program-specific, output-based monitoring of planned activities and budgets; ii) corridor-specific socio-economic and biodiversity impact monitoring to track program impacts, based on the indicators in the DMF; and iii) national level monitoring of key environmental indicators and government responses obtained from EPA and other national monitoring systems supported by the program. Baselines for the DMF indicators, based on BCI information will shortly be available on the EOC web site and will be updated annually.

63. While key monitoring indicators are identified in the DMF, detailed annual work plans for CEP-BCI (2012-2016) will be developed collaboratively by the WGE, EOC, NSUs and implementing agencies.[47] In these plans detailed sub-activities will be described, and intermediate milestones will be developed. Each component output indicator will be described in detail to produce a results-based matrix for monitoring and semi-annual reporting purposes.

[46] See institutional capacity development plans under Component 4

[47] National WGE coordinators and government implementing institutions in the GMS countries, as well as non-government partner institutions involved in field activities

Risk	Risk Management Strategy	Risk Level
Impact and Outcome Level Risks		
Rapid increases in economic growth dramatically increase environmental pressures.	• Economic benefits of sound environmental management will be highlighted and used to promote policy dialogue for sustainable development.	H3
Surges in FDI and rapid economic growth outpaces environmental response times.	• Agencies responsible for planning and investment will be engaged and supported under CEP-BCI and targeted for institutional capacity development.	H3
Short-term income needs and investment priorities override longer-term environmental concerns.	• Agencies responsible for planning and investment will be engaged and supported under CEP-BCI and targeted for institutional capacity development.	M2
Component 1: Improved environmental planning systems, methods and safeguards.		
Environmental safeguards are seen as a hindrance to implementation by other development sectors.	• Economic development sectors will be engaged and encouraged to mainstream environmental management into their programs. • CEP-BCI activities, outputs, methodologies and program resources will be shared with other sectors to promote ownership. • Economic benefits of sound environmental management will be demonstrated (e.g., valuation of ecosystem services will be used to show the need for sound environmental management).	M3
Regionalization of environmental standards puts undue pressure on some countries.	• Regionality will not be forced, but opportunities for synergies will be identified and targeted (e.g., regional eco-tourism development benefits all countries and has positive spin-offs for biodiversity conservation, poverty, ethnicity and gender).	M2
Component 2: Management of transboundary biodiversity conservation landscapes and local livelihoods improved.		
Climate change erodes the benefits generated by livelihood development activities.	• Climate-proofing of livelihood development activities will be prioritized with support from Component 3. • Biodiversity (including agro-biodiversity) will be conserved as a hedge against climate change. • Climate-resilient and gender friendly livelihood technologies will be designed, tested and disseminated across economic corridors.	M3
Biodiversity and socio-economic impacts of the program cannot be properly measured and monitored.	• Lessons learned from CEP-BCI (2006-2011) have been analyzed, and monitoring frameworks adjusted accordingly. • Support for the development and use of appropriate and practical monitoring systems will be provided by Component 1.	M3
Lack of funding and government support for Protected Areas in the biodiversity corridors negates the conservation benefits accruing from the corridors themselves.	• ADB promotion for GEF support to the national protected areas in the corridors. • Close integration of Component 4 with BCC and GEF programs to enhance Protected Area funding opportunities.	M3
Poor enforcement allows leakage and illicit cross-border trade in wildlife and timber.	• Engagement and capacity development for law enforcement agencies. • Institutional support to strengthen national obligations to MEAs, including CITES, etc.	M2
Component 3: Climate resilient and low carbon strategies developed.		
Climate-proofing technologies are too expensive for GMS countries to adopt.	• Economic and development advantages of climate-proofing will be demonstrated. • Simple, cheap climate resilient technologies will be developed and implemented under Component 3 in support of food security and sustainable livelihoods.	M3
Component 4: Strengthened institutions and financing for sustainable environmental management.		
Only limited income with high transition costs is generated by sustainable financing systems.	• Initial focus on win-win situations, such as energy revenues for watershed protection and eco-tourism income for protected area management, will be used as examples to generate interest.	M3
Private sector lobby groups hold back progress on PES.	• Initial focus and testing will be on win-win opportunities such as eco-tourism to demonstrate benefits. • Engagement of green, private-sector elements for initial piloting and demonstration of PES systems.	M3

Likelihood: L = low, M = medium, H = high **Potential impact:** 1 = low, 2 = medium, 3 = high

Sustainability Issue	Management Strategy
Sustainable relations providing mutual advantages for all economic development sector programs must be forged and maintained.	• Strong institutional development support to the WGE through the EOC and NSUs to embed it in regional development planning across all sectors. • Further support to implement results of sector SEAs (hydropower, tourism and economic corridors) to clearly demonstrate the benefits they provide.
CEP-BCI must show tangible economic benefits in all development sectors.	• Initial focus on win-win opportunities such as the examples for tourism and agriculture[48] to clearly demonstrate economic benefits to these sectors. • Socio-economic monitoring frameworks will be strengthened to clearly demonstrate poverty reduction benefits.
CEP-BCI interventions need to become institutionalized in member country national programs.	• Technical capacity building will continue, but CEP-BCI (2012-2016) will emphasize institutional and organizational capacity development. • CEP-BCI (2012-2016) will build on ongoing national initiatives to promote institutionalization.
Institutional and organizational capacity has to be developed in member countries to produce an enabling environment for sustainable natural resources management.	• CEP-BCI (2012-2016) will emphasize institutional and organizational capacity development. • Institutional mapping[49] will be used to identify priority areas for capacity development in each member country. • Potential partners including NGOs will be identified by institutional mapping, and engaged through collaborative institutional development activities.
Regional benefits of CEP-BCI must clearly emerge and accrue equitably to all member countries.	• Regionality will not be forced, but areas where regional cooperation on the environment has strong national synergies, such as in the energy, transport, agriculture and tourism sectors[50] will be emphasized. • Up-scaling of conservation corridors to transboundary level will help to demonstrate benefits from regional cooperation.
Impacts of the conservation corridor program must demonstrate clear conservation benefits in protected areas in the corridors.	• CEP-BCI (2012-2016) recognizes this and has been in discussions with GEF to obtain funding support for the protected areas. • Component 2 will cooperate closely with BCC and the GEF programs to ensure an integrated corridor approach including protected areas.
Institutional recognition and legal status for biodiversity conservation corridors will be required to sustain, institutionalize and out-scale the benefits from the CEP-BCI program.	• The early successes in PRC and institutional lessons from Thailand in regard to legal frameworks for the establishment of biodiversity corridors will be used and built on in CEP-BCI (2012-2016). • Strengthened monitoring frameworks will provide socio-economic and biodiversity data that demonstrate benefits from conservation in the corridors.

Table 4. (previous page) Risk Analysis and Management Strategy

Table 5. (above) Sustainability Analysis and Management Strategy

64. Reporting systems in place under CEP-BCI (2006-2011) have proved effective and will be continued. At the national level, CEP-BCI implementing partners will report every six months to the WGE Focal Point Agency, and the coordination and timeliness of such reporting will be ensured by the NSUs. Regular consultations will be held with stakeholders by the NSUs to secure stakeholder inputs, to review progress and to solve any outstanding issues. In addition to specific activity reports, semi-annual progress reports will be produced by the WGE with support from the NSUs and the EOC for review and endorsement at the Semi-Annual WGE Meetings (WGE SAMs); these will be submitted to development partners and ADB. Annual reports of the CEP-BCI will be approved by the WGE for public dissemination through print and electronic media. At the time of the GMS Summit, comprehensive progress reports on the program will be made available to the GMS countries and the public.
A communications strategy is in place to implement an outreach program as well as to inform partners, donors, and the general public in the GMS countries about CEP-BCI activities, challenges, successes, limitations and impacts. The EOC also maintains a website and issues periodic e-newsletters to keep stakeholders and general audience informed. Under the

[48] See Section V. C. Implementation Arrangements, Paragraphs 50-52

[49] See Section V. C. Implementation Arrangements, Paragraphs 51-53

[50] See Paragraph 61

CEP-BCI (2012-2016), the website will document indicators and monitor results, which will be posted regularly along with progress reports.

External evaluations by development partners and the ADB will be carried out periodically in addition to internal CEP-BCI (2012-2016) monitoring and evaluation activities. **Program implementation will be supervised by ADB staff posted at the Thailand Resident Mission as well as through: i) half-yearly progress reports, ii) participation in stakeholder workshops, and iii) ADB review missions with selective site visits based on the indicators described in the design monitoring framework (DMF).**

F. RISK MANAGEMENT

65. The risks associated with the program achieving its intended impact, outcome and outputs were identified during development of the CEP-BCI (2012-2016) DMF. Key risks were assessed in regard to their likelihood of occurrence and their potential impacts. Risk mitigation strategies were then developed for each, and these were incorporated in the program design. Results of the analysis for the most important risks are summarized in Table 4.

G. SUSTAINABILITY ANALYSIS

66. This section identifies and analyses the key issues affecting the sustainability of the CEP-BCI impacts. It addresses sustainable development practices generally to ensure that sound environmental management provides sustainable benefits regionally, in all member countries and across all development sectors. Results of the sustainability analysis are summarized in Table 5.

H. LONG TERM INVESTMENT STRATEGY

67. The CEP-BCI aims to strengthen GMS country capacities and commitments to adopt sound environmental management measures with a view to maintaining and restoring critical conservation landscapes that are essential for the provisioning of essential ecosystem services. Towards this end, the program will also support and facilitate securing innovative and sustainable financing. A major achievement of the pilot phase of CEP-BCI was securing $69 million in financing for Cambodia, Lao PDR and Viet Nam to scale up the BCI pilot activities. Similarly CEP-BCI (2012-2016) will strive to mobilize additional funding by targeting the private sector, overseas development assistance that can be leveraged through the CEP-BCI and public funds from PES and other similar mechanisms. An investment framework outlining commitments (**Appendix 3**) will be maintained and routinely updated by the EOC.

VI

COST ESTIMATES

68. The cost estimates of the CEP-BCI (2012-2016) are shown in Table 6. They are computed on a base case model where CEP-BCI (2012-2016) is complimented by other programs including the BCC investment program in Cambodia, Lao PDR, and Viet Nam and potentially the GEF-supported GMS regional Biodiversity and Forest Conservation Program. The costs are based on an anticipated 5-year phase with financing from ADB resources and the support of at least one bilateral development partner.

Table 6.
CEP-BCI (2012-2106)
Cost Estimates

No.	Components	$ ('000)	Percent
1	Improved environmental planning systems, methods and safeguards	10,310	39
2	Management of transboundary biodiversity conservation landscapes and local livelihoods improved	4,426	17
3	Climate resilient and low carbon strategies developed	6,107	23
4	Strengthened institutions and financing for sustainable environmental management	4,402	17
	Sub-Total	25,245	95
	Contingency	1,262	5
	Total	**26,507**	**100**

APPENDIX I

CEP-BCI (2012-2016) DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Improved biodiversity conservation and climate resilience across the GMS	Compared to 2011 baseline, by 2022: • Forest cover and stocking density in the GMS is maintained or increased • Habitat connectivity in the GMS is stabilized or increased • Key ecosystem services (e.g., water) flows and quality are maintained or increased • Populations of selected indicator species for each country are stabilized or increased • Livelihoods (cash and non-cash elements) of at least 50 percent of participating households in the conservation landscapes are improved • At least 40 communes/village clusters in conservation landscapes have climate change adaptation/disaster risk reduction plans	• National and FAO Forestry reports • Water services baseline report and evaluation reports • EPA and environmental performance index reports • Regional and national statistical publications on forestry and biodiversity • Regional and national publications on socio-economic indicators • Local climate change vulnerability maps and adaptation plans • BCC socio-economic baseline in Cambodia, Lao PDR and Viet Nam • EMM reports • CEP-BCI progress reports	**Assumptions** • GMS governments remain committed to inclusive growth and sound environmental practices • Investment financing (public and private) is available • Increasing climate change mitigation and adaptation by public and private sector **Risks** • Rapid economic growth causes increased environmental pressures • Impact of rapid economic growth outpaces environmental response times
Outcome Pro poor environmental management and climate-friendly measures adopted by the GMS Economic Cooperation Program	Compared to 2011 baselines, by 2016: • Increased number of ECP plans/investments with improved environmental and social safeguards • Increased sector investments leveraged for improving climate resilience and environmental management in the GMS	• GMS sector and line agency reports • Regional, national and sector publications on economic indicators • Reports to GMS Ministers' Meetings and EMM • CEP-BCI progress reports	**Assumptions** • GMS governments remain committed to mainstreaming environmental concerns • Environmental initiatives by all partners are cohesive • Community and local agency support and ownership of activities continue

Design Summary	Performance Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
	• Draft bi or multi-lateral arrangements on managing cross-border biodiversity conservation corridors/ protected areas are agreed		**Risks** • Short-term development needs override long-term sustainable developments priorities
Component 1 Improved environmental planning systems, methods and safeguards	• By 2016, environmental and social considerations addressed in at least six (6) GMS plans and/or strategies at the national, sectoral or corridor level • By 2016, regulations and guidelines following best practices for implementing country environmental safeguards in place in at least two (2) ECP sectors • By 2016, improved environmental reports as evidenced by ability to meet national reporting requirements • Increased number of GMS agency staff conducting safeguard assessments without external support	• GMS sectoral plans and strategies • National environmental and social safeguards regulations and guidelines • GMS country State of the Environment reports • Agency staff records/ CEP-BCI progress reports and baseline database	**Assumptions** • Sector agency support is received for environmental initiatives **Risks** • Sector authorities promote unsustainable development for short-term revenue target gains
Component 2 Management of transboundary biodiversity conservation landscapes and local livelihoods improved	• By 2016, biodiversity corridors are legally recognized in at least three (3) GMS countries • By 2016, land use zones mapped and enforced by provincial, district and community authorities in three (3) landscapes • By 2016, co-management and maintenance of areas designated for strict protection is in place in at least three (3) landscapes • By 2015, subregional or bilateral mechanism established for monitoring movement of wildlife and forestry resources in at least three (3) cross-border biodiversity landscapes • By 2015, at least 20 percent of participating households in transboundary biodiversity corridors add value to ecosystem related goods • By 2015, increased number of women and ethnic minority households benefiting (cash) from PES & REDD	• Provincial regulations, decisions • Provincial land use plans • Co-management agreements • Cross-border agreements • GMS program evaluation reports • TRAFFIC/WWF reports on wildlife and timber trade • Program baseline and progress reports • Socio-economic surveys	**Assumptions** • GMS governments willing to agree on joint management activities across transboundary landscapes **Risks** • Conservation and sustainable livelihoods gains are negated by ad-hoc development decisions • Cross border leakage is not seen as a priority by government

Design Summary	Performance Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
Component 3 Climate resilient and low carbon strategies developed	By 2016: • At least three (3) project investment proposals on low carbon technologies prepared • At least one (1) low carbon transport project piloted • Climate resilience measures integrated in at least two (2) strategies/plans in the agriculture and tourism sectors • Increased number of agency staff and local people implementing REDD+ activities in at least three (3) conservation landscapes • Community REDD monitoring, reporting and verification (MRV) reports generated to acceptable international standards	• ADB Climate Change Fund progress reports • GMS economic corridor evaluation and progress reports • GMS Transport Working Group progress reports/ proceedings • GMS country REDD/REDD+ reporting • Freight association reports • GMS Business Forum reports	**Assumptions** • Additional funding is available and accessible for CC activities • Public and private sectors have sufficient appetite for low carbon and efficient growth **Risks** • Climate proofing technologies too expensive for GMS countries to adopt • Conservation and sustainable livelihoods gains are negated by ad-hoc development decisions
Component 4 Strengthened institutions and financing for sustainable environmental management	By 2016: • Increased number of joint activities of WGE with other sectors • PES policies launched in three (3) countries • By 2014, NSUs fully operational in at least four (4) countries • PES pilots implemented in at least two (2) countries • At least one (1) public private partnership initiated • Increased financing secured for REDD through CEP-BCI as compared to 2011	• GMS/EMM reports • Government circulars • CEP-BCI progress Reports	**Assumptions** • Private and public agencies, supported by healthy economic growth, have sufficient financial resources and support **Risks** • Sustainable financing systems generate only limited income with high transaction costs

Activities	**Inputs** (Tentative, $'000)
Component 1: Improved environmental planning systems, methods and safeguards 1.1 Build subregional and national SEA capacities 1.2 Capacity building for environmental safeguards 1.3 Strengthen country environmental monitoring processes **Component 2: Management of transboundary biodiversity conservation landscapes and local livelihoods improved** 2.1 Improve/update biodiversity profiles in conservation landscapes 2.2 Support value chain development based on ecosystem goods and services 2.3 Strengthen biodiversity conservation corridor management and monitoring in biodiversity conservation landscapes 2.4 Improve compliance with multilateral environmental agreements on the movement of wildlife, timber and other natural resources **Component 3: Climate resilient and low carbon strategies developed** 3.1 Support climate resilience of gender and ethnic minority friendly agriculture, natural resources and tourism sectors 3.2 Development of strategic and investment planning capacity for low carbon transport and energy 3.3 Support to REDD readiness and implementation (monitoring, reporting, verification (MRVs), reference emissions levels (REL)) **Component 4: Strengthened institutions and financing for sustainable environmental management** 4.1 Strengthening of national and sub-national level capacity for environmental management and monitoring and promotion of regional integration 4.2 Policy support for sustainable financing 4.3 Public-Private-Partnerships for gender sensitive and ethnic minority friendly conservation and ecosystem management	**Output 1:** $10,310 **Output 2:** $4,426 **Output 3:** $6,107 **Output 4:** $4,402 **ADB & Co-Financiers: $** **Item** — **Amount** ($'000) ADB Co-Financing – 1 Co-Financing – 2 Co-Financing – 3 **Government $ {amount}** **Item** — **Amount** ($'000)

APPENDIX II

CEP-BCI (2012-16) ACTION PLAN

No.	Activity	Indicator/Milestone	Timeframe	Responsible GMS	Responsible EOC
1	**Improved environmental planning systems, methods and safeguards**				
1.1	Build subregional and national SEA capacities • Support national line agencies to conduct SEA of national and provincial land use plans • Support national line agencies to conduct SEAs of national power development plans in Cambodia and Lao PDR and provincial hydropower master plan in Viet Nam • Support RPTCC to conduct SEA of regional power trade • Support GMS Transport Forum to conduct SEA of GMS railway strategy • Hold a regional workshop to exchange national SEA experiences • In collaboration with ADB resident mission and sector line agencies support preparation/upgrade of national SEA laws and guidelines in Cambodia, Lao PDR, Viet Nam • Follow up SEAs of economic corridors and tourism: provide policy and legal support for select municipalities/towns (trade, industry, tourism hub) on green/ low carbon growth in Lao PDR, Thailand and Viet Nam	• By 2015, at least thirty (30) government staff and national experts engaged in conducting participatory SEAs through output-based 'learning by doing' activities, with at least 30 percent of participants being women • By 2016, SEA legal and policy framework formulated and gender and ethnic sensitive guidelines complied within Cambodia, Lao PDR and Viet Nam	2012-2015	NSUs in GMS Countries and Sector Departments/ Ministries	Environmental Planning and Safeguards Specialist-EPSS (Int.) and EPSS Coordinator (GMS)
1.2	Capacity building for environmental safeguards • Support GMS transport and energy forum to assess and strengthen national/provincial institutional capacity to implement requisite safeguard policies in energy and transport projects/ portfolios in the pipeline within GMS economic corridor strategies/ action plans	• Functional sector level EIA departments as evidenced by number of trained staff to conduct assessments • Enhanced capacity in environmental ministry to supervise and appraise EIAs as evidenced by number of trained staff • EIA sector level gender and ethnic sensitive guidelines in place and implemented	2012-2014	NSUs in GMS Countries and Sector Departments/ Ministries	Environmental Planning and Safeguards Specialist-EPSS (Int) and EPSS Coordinator (GMS)

No.	Activity	Indicator/Milestone	Timeframe	Responsible GMS	Responsible EOC
	• Capacity building to develop and implement Environmental Monitoring Plans (EMP) for energy and transport projects/portfolios in the pipeline within GMS economic corridor strategies/ action plans				
1.3	Strengthen country environmental monitoring processes • Develop national/provincial MIS/ Information and Communication Technology (ICT) capacity to support the knowledge management on conservation landscapes • Continue ongoing EPA and Environmental Performance Index activities • Strengthen Environmental Information System (EIS)/GIS/Knowledge-based information system	• Functional environmental information management system established in at least three (3) GMS countries by 2014	2012-2015	NSUs in GMS Countries, relevant Ministries, and ADB Resident Missions	Environmental Planning and Safeguards Specialist-EPSS (Int.), EPSS Coordinator (GMS), GIS-Knowledge Management Specialist (Int.)
2	**Management of transboundary biodiversity conservation landscapes and local livelihoods improved**				
2.1	Improve/update biodiversity profiles in conservation landscapes • Update biodiversity conservation landscapes profile using scientific assessment tools like multi-criteria analysis • Build capacity of responsible stakeholders including exposure to measurement tools	• By 2016, ecosystem profile of species, protected areas and conservation landscapes updated across the GMS	2012-2016	NSUs in GMS and Executing Agencies of GMS Biodiversity Conservation Corridors	CTA (Int.), GIS-Knowledge Management Specialist (Int.)
2.2	Support value chain development based on ecosystem goods and services • Conduct valuation of ecosystem services in four cross-border landscapes • Policy support and pilot projects to increase financial flows from public/ private sector in conservation and value-added ecosystem service provision • Demonstration projects on improving value chain of biodiversity-related products, productive end-use of renewable energy, sustainable agriculture and ecotourism • In collaboration with CASP, support national systems to institute eco labeling and standards to increase market access of local and biodiversity-friendly products	• Ecosystem service values quantified for at least four (4) transboundary conservation landscapes	2012-2015	NSUs in GMS and Executing Agencies of GMS Biodiversity Conservation Corridors	CTA (Int.), GIS-Knowledge Management Specialist (Int.)
2.3	Strengthen biodiversity conservation corridor management and monitoring in biodiversity conservation landscapes • Scale up cross border BCI pilot activities in GMS countries • Develop scientifically robust monitoring guidelines/protocols and update web-based monitoring data • Support/facilitate signing of bilateral/ regional memorandum of understanding and agreements to institutionalize cooperation in establishing transboundary protected areas and biodiversity conservation corridors	• By 2016, BCI approach (including gender and ethnic sensitive conservation and livelihoods) scaled up in three (3) transboundary landscapes • Monitoring framework for conservation landscapes strengthened and extended	2012-2013	NSUs in GMS and Executing Agencies of GMS Biodiversity Conservation Corridors	CTA (Int.), GIS-Knowledge Management Specialist (Int.)

No.	Activity	Indicator/Milestone	Timeframe	Responsible GMS	Responsible EOC
2.4	Improve compliance with multilateral environmental agreements on the movement of wildlife, timber and other natural resources • Address the threat posed by invasive alien species • Support GMS transport and trade facilitation networks (e.g., Cross-border Transport Agreements) to reduce the unauthorized movement of wildlife and timber • Build enforcement and management capacity through awareness raising/ training to Combined Border Management Units	• Capacity of border control staff to monitor trade compliance at least two (2) GMS corridors increased as evidenced by awareness raised • Alien species information platform, database, and early warning system established	2012-2016	GEF Project Management Teams in Executing Agencies	CTA (Int.)
3	**Climate resilient and low carbon strategies developed**				
3.1	Support climate resilience of agriculture, natural resources and tourism sectors • Maintain regional database of downscaled global circulation models (GCM) and support sectors to assess impacts and develop sectoral adaptation plans • Develop climate change vulnerability assessment and valuation methodology focusing on tourism and agriculture sectors • Support CASP to develop projects on ecosystems/community-based climate change adaptation	• By 2014, subregional spatial and temporal database on climate change vulnerability, including gender and ethnic disaggregated risks, established • By 2016, ecosystems/ community-based adaptation plans drawing on indigenous knowledge formulated for at least 50 communities within biodiversity conservation corridors	2012-2015	NSUs in GMS countries; relevant Ministries, research institutes and universities, national climate change specialists	Climate Change Specialist (Int.) and CC Coordinator (GMS)
3.2	Development of strategic and investment planning capacity for low carbon transport and energy • Support GMS Energy Forum with energy efficiency and renewable energy strategies (e.g., repository of information on renewable energy and energy efficiency, supporting and disseminating information on best practices, etc.) • Conduct feasibility analysis of low carbon and energy efficient technology and related policy options (incentives, regulations, etc.) for energy and transport sector • Develop joint pilot projects with transport sector to facilitate private sector investment in low carbon and energy efficient technology • Quantify carbon footprint of agriculture system (fertilizer and pesticide uses) and life-cycle footprint of fossil fuel energy systems	• By 2014, low carbon transport initiatives (including technology and policy reform) piloted in one (1) GMS economic corridor	2012-2014	NSU, Ministry of Agriculture and other relevant Ministries	Climate Change Specialist (Int.) and CC Coordinator (GMS)
3.3	Support to REDD readiness and implementation (RELs, MRVs) • Support development of appropriate MRV systems in selected countries • Build capacity of stakeholders (government, communities, etc.) on REDD+ readiness and forest certification • Pilot REDD+ readiness projects in BCC	• By 2015, REDD/REDD+ mechanisms piloted in at least three (3) conservation landscape in the GMS	2012-2016	NSU, ministries of Transport and Energy/Agriculture	Climate Change Specialist (Int.) and CC Coordinator (GMS)

No.	Activity	Indicator/Milestone	Timeframe	Responsible GMS	Responsible EOC
4	**Strengthened institutions and financing for sustainable environmental management**				
4.1	Strengthening of subregional, national and sub-national level capacity for environmental management and monitoring and promotion of regional integration • Establish fully functional NSUs capable of program implementation and country/ sector/regional coordination • Strengthen WGE capacity with secretariat and technical support from the EOC • Promoting participation of academic and research institutions in the CEP-BCI	• By 2016, functional NSUs established in all the GMS countries with at least three (3) staff each • Strengthened role of WGE members in CEP-BCI decision making as evidenced by leadership in program implementation	2012-2016	NSU in GMS countries/ university network in GMS countries	CTA (Int.) GIS-Knowledge Management Specialist (Int.) Capacity building specialists (GMS)
4.2	Policy support for sustainable financing • Establishment of PES mechanisms and pilot PES policies in selected countries • Demonstrate benefit sharing arrangements through pilot projects on BCC sites to sustain rural livelihoods while protecting ecosystem functions • Facilitate GMS cooperation to capture REDD+ and other carbon financing opportunities	• By 2016, pilot PES policies formulated and promoted in at least two (2) GMS countries • BY 2016, PES schemes implemented in at least two (2) provinces in VIE against 2011 baseline	2012-2016	NSU, GMS Coordinators, Ministry of Planning and Finance, relevant sector departments	CTA (Int.)
4.3	Public-private partnerships for gender sensitive and ethnic minority inclusive conservation and ecosystem management • Promote public-private partnerships for sustainable forest management, ecosystem service-based enterprises • Engage with private sector as part of corporate social responsibility (CSR) initiatives with a focus on eco-compensation for GHG reduction and ecosystem maintenance/ restoration works • Support GMS Business Forum to capture investment opportunities for value-added goods and services related to forestry, agriculture, and ecosystem services. • Identify opportunities with the transport sector to build environmental offset mechanisms (GHG emissions and biodiversity) • Conduct financial and economic analysis of green growth opportunities in GMS countries including low carbon, energy efficient technology options to promote industry leadership	• At least three (3) projects developed jointly with private sector partners in conservation, low carbon transport and energy efficiency/renewable energy	2012-2015	NSU in GMs Coordinators, Ministry of Finance, private sector corporate bodies, relevant sector departments	CTA (Int.)

APPENDIX III

INVESTMENT PORTFOLIO SUPPORTING ENVIRONMENT AND NATURAL RESOURCE MANAGEMENT IN THE GMS

The proposed CEP-BCI (2012-2016) will be complemented by an ongoing, pipeline and proposed investment portfolio supported by GMS countries and the ADB in various sectors indirectly linked to or contributing positively to enhancing environmental management and maintenance of natural resources. The criteria used for selecting various investment projects for inclusion in the investment framework are:

- Agriculture and natural resources sector (ANR) projects from the CPS, Vientiane Plan of Action updates and the Regional Cooperation Operations Business Plan;
- Project addressing wider environmental issues (e.g., energy efficiency in municipalities, drought and flood risk management, food safety, sustainable tourism);
- Infrastructure projects like dams and roads, etc. (including the economic corridor projects) where these had specific links to environmental improvement and sustainability.

Taking into consideration ongoing and indicative pipeline projects, the current investment portfolio indicates GMS and ADB investments over $1.67 billion. As per the following table, an additional $615.15 million could be leveraged to enhance the investment framework through the CEP-BCI 2012-2016.

Table 1.
ADB Investments supporting and linked to environment and natural resources (indicative)

Countries/Regional/Themes	Estimated Cost ($ Million)		
Ongoing and Pipeline ADB Investments	**Ongoing**	**Indicative Pipeline**	**Proposed**
Cambodia	21.9	186.0	0.0
PRC	299.0	0.0	0.0
Lao PDR	103.6	170.9	0.0
Thailand	0.0	50.7	0.0
Viet Nam	292.8	378.0	0.0
National Subtotal	**717.3**	**785.6**	**0.0**
GMS (Regional) Subtotal	**42.5**	**124.4**	**25.7**

Countries/Regional/Themes	Estimated Cost ($ Million)		
Ongoing and Pipeline ADB Investments	**Ongoing**	**Indicative Pipeline**	**Proposed**
Proposed investment under CEP-BCI (2012-2016)			
Transport (emissions reductions due to new/improved freight fleet)			200.0
GEF Regional Biodiversity and Forestry Program (including star allocations, SFM, adaptation, and focal area set aside)			55.0
Afforestation along EWEC with wood production potential and processing			150.0
Bioenergy/Cellulosic/hydrogenation/charcoal efficiency/biochar (multi-purpose species e.g. Calliandra)			50.0
BCI upscaling in Yunnan, Guangxi and Thailand (lending products, each at approx. $20 million)			60.0
Climate change adaptation (CC resilience of infrastructure) in BCI landscapes (Cambodia/PRC/Lao PDR/Thailand/Viet Nam)			100.0
Subtotal			**615.0**
TOTAL INVESTMENT FRAMEWORK	**759.8**	**910.0**	**640.7**

Detailed Tables

				Estimated Cost ($ Million)			
Country	**Category**	**Sector**	**Project Name**	**Date Approved**	**Ongoing**	**Indicative Pipeline**	**Proposed**
CAMBODIA							
Cambodia	Grant	ANR	GMS Biodiversity Conservation Corridor	2010	20.9		
Cambodia	Loan	ANR	GMS Flood and Drought Risk Management and Mitigation	2011		35.0	
Cambodia	Loan	ANR	Agricultural Commercialization and Resource Conservation Sector Development Program	2012		55.0	
Cambodia	Loan	ANR	GMS Climate-Friendly Bio-Energy Project	2013		30.0	
Cambodia	PPTA	ANR	Agricultural Commercialization and Resource Conservation Sector Development Program	2011	1.0		
Cambodia	Loan	I&T	GMS Sustainable Tourism Development II	2013		20.0	
Cambodia	Loan	I&T	Food Safety and Agricultural Trade Facilitation in the GMS	2012		30.0	
Cambodia	Loan	WSOMIS	GMS Corridor Towns Development Project	2012		16.0	
			SUBTOTAL		**21.9**	**186.0**	**0.0**
PRC							
PRC	Loan	MS	Guangxi Southwestern Cities Development Project	2010	299.0		
			SUBTOTAL		**299.0**	**0.0**	**0.0**

				Estimated Cost ($ Million)			
Country	**Category**	**Sector**	**Project Name**	**Date Approved**	**Ongoing**	**Indicative Pipeline**	**Proposed**
LAO PDR							
Lao PDR	Grant	ANR	GMS Biodiversity Conservation Corridor	2010	21.8		
Lao PDR	Loan	ANR	Climate Resilient Water Resource Management for Food Security	2013		15.0	
Lao PDR	Loan	ANR	Climate-Friendly Value Chain Development	2014		50.0	
Lao PDR	Grant	ANR	GMS Climate-Friendly Bio-Energy Project	2013		15.0	
Lao PDR	Grant	ANR	GMS Flood and Drought Risk Management and Mitigation	2011		20.0	
Lao PDR	Loan	ANR	Northern Rural Infrastructure Development (Supplementary Fund)	2016		30.0	
Lao PDR	Loan	ANR	Rural Infrastructure Development	2010	34.0		
Lao PDR	Loan	ANR	Sustainable Natural Resources Management and Productivity Enhancement Project	2009	35.0		
Lao PDR	RDTA	ANR	Agriculture Diversification and Commercialization	2010	0.4		
Lao PDR	PPTA	ANR	Climate-Friendly Value Chain Development	2013		1.0	
Lao PDR	TA	ANR	Gender Mainstreaming for Climate Resilience Natural Resource Management	2015	0.6		
Lao PDR	CDTA	ANR	National Land and Water Resource Inventory and Assessment	2014		1.5	
Lao PDR	R-PPTA	ANR	Rural Infrastructure Development	2009	0.8		
Lao PDR	R-PPTA	ANR	Sustainable Natural Resources Management and Productivity Enhancement Project	2009	0.7		
Lao PDR	TA?	ANR	Vulnerability reduction through Strengthening Community-Based Watershed Management	2013		0.8	
Lao PDR	Loan	I&T	Greater Mekong Subregion: Sustainable Tourism Development	2008	10.9		
Lao PDR	Loan	I&T	GMS Sustainable Tourism Development II	2013		22.0	
Lao PDR	Loan	WSOMIS	GMS Corridor Towns Development Project	2012		15.0	
			SUBTOTAL		**103.6**	**170.9**	**0.0**

				Estimated Cost ($ Million)			
Country	**Category**	**Sector**	**Project Name**	**Date Approved**	**Ongoing**	**Indicative Pipeline**	**Proposed**
THAILAND							
Thailand	Loan	ENE	Municipalities and energy efficiency	2012		50.0	
Thailand	PPTA	ENE	Municipalities and energy efficiency	2011		0.7	
			SUBTOTAL		**0.0**	**50.7**	**0.0**
VIET NAM							
Viet Nam	Loan	ANR	GMS Biodiversity Conservation Corridor	2010	34.1		
Viet Nam	Loan	ANR	GMS Climate-Friendly Bio-Energy Project	2013		35.0	
Viet Nam	Loan/grant	ANR	GMS Flood and Drought Risk Management and Mitigation	2011		80.0	
Viet Nam	Loan	ANR	River Basin Water Resources Management and Development	2011		105.0	
Viet Nam	Loan	ANR	Strengthening Water Management and Irrigation Systems Rehabilitation	2010	140.0		
Viet Nam	Loan	ANR	Sustainable Rural Infrastructure Development Project in Northern Mountainous Provinces	2010	106.8		
Viet Nam	PPTA	ANR	River Basin Water Resources Management and Development	2010	0.8		
Viet Nam	Loan	I&T	Greater Mekong Subregion: Sustainable Tourism Development (ADF)	2008	11.1		
Viet Nam	Loan/grant	I&T	GMS Sustainable Tourism Development II	2012		23.0	
Viet Nam	Loan	WSOMIS	GMS Corridor Towns Development Project	2012		135.0	
			SUBTOTAL		**292.8**	**378.0**	**0.0**
			TOTAL		**717.3**	**785.6**	**0.0**
GMS Regional							
CAM/LAO/ THA/VIE	R-PPTA	ANR	Promoting Low Carbon/ Climate Resilient Economies in the GMS	2012		0.9	
CAM/LAO/VIE	R-PPTA	ANR	GMS Climate-Friendly Bio-Energy Project	2012		1.7	
CAM/LAO/VIE	CDTA	ANR	Capacity Building for Climate-Friendly Bioenergy and Food Security in the GMS	2011		4.6	
CAM/LAO/VIE	PPTA	ANR	GMS Flood and Drought Risk Management and Mitigation	2011	2.5		

				Estimated Cost ($ Million)			
Country	**Category**	**Sector**	**Project Name**	**Date Approved**	**Ongoing**	**Indicative Pipeline**	**Proposed**
GMS Regional							
CAM/LAO/VIE	R-PPTA	I&T	GMS Sustainable Tourism Development II	2012		1.0	
CAM/LAO/VIE	R-PPTA	MS	Pro-poor Tourism Development along the Southern Economic Corridor	2013		1.4	
CAM/LAO/VIE	Loan	ANR	Promoting Low Carbon/ Climate Resilient Economies in the GMS	2013		100.0	
GMS	R-PATA	ANR	Implementing the Core Agricultural Support II	2012		1.0	
GMS	R-CDTA	ANR	Food Traceability System and Paperless Trade Facilitation in the GMS	2011		2.0	
GMS	ADTA	ANR	Core Environment Program and Biodiversity Corridor Initiative in GMS	2005	25.6	0.8	25.7
GMS	ADTA	ANR	Core Environment Program and Biodiversity Corridor Initiative in GMS (Supplementary)	2008	7.2		
GMS	R-PATA	ANR	Invasive Species and Transboundary Animal Disease Control in the GMS	2013		1.5	
GMS	R-PATA	ENE	GMS: Renewable Energy Development 2	2013		2.0	
GMS	R-PATA	ENE	Facilitating Regional Power Trading and Environmentally Sustainable Development of Electricity Infrastructure in the Greater Mekong Subregion, Phase 2	2011		1.0	
GMS	ADTA	ENE	Ensuring Sustainablity of GMS Regional Power Development	2010	1.4		
GMS	CDTA	ENE	Promoting Renewable Energy, Clean Fuels and Energy Efficiency in the GMS	2010	1.0		
GMS	R-CDTA	ENE	Developing of GMS Coordination Centre for Regional Power Trade	2012		3.0	
GMS	ADTA	HRD	Greater Mekong Subregion Phnom Penh Plan for Development Management IV (2nd Supplementary)	2010	0.8		
GMS	R-PPTA	I&T	Food Safety and Agricultural Trade Facilitation in the GMS	2012		2.0	
GMS	ADTA	I&T	Strengthening Local CCIs along the East-West Economic Corridor to Promote Trade, Investment and Value Chains	2010	0.7		

				Estimated Cost ($ Million)			
Country	**Category**	**Sector**	**Project Name**	**Date Approved**	**Ongoing**	**Indicative Pipeline**	**Proposed**
GMS Regional							
GMS	Core	MS	Strengthening the Coordination of the Greater Mekong Subregion	2010	1.5		
GMS	ADTA	MS	Support for Implementing Action Plan for Transport and Trade Facilitation in the Greater Mekong Subregion (Subproject 1) (Cluster=$5.7 mil)	2010	2.0		
GMS	R-PATA	MS	Support for Implementing Action Plan for Transport and Trade Facilitation in GMS (cluster TA, Subproject 2)	2012	1.5		
			TOTAL		**42.5**	**124.4**	**25.7**

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GREATER MEKONG SUBREGION
CORE ENVIRONMENT PROGRAM
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