

**Ngoc Linh–Xe Sap Biodiversity Conservation Corridors
Viet Nam**

Pilot Project Profile (2005–2008)

May 2005

A. Project Context

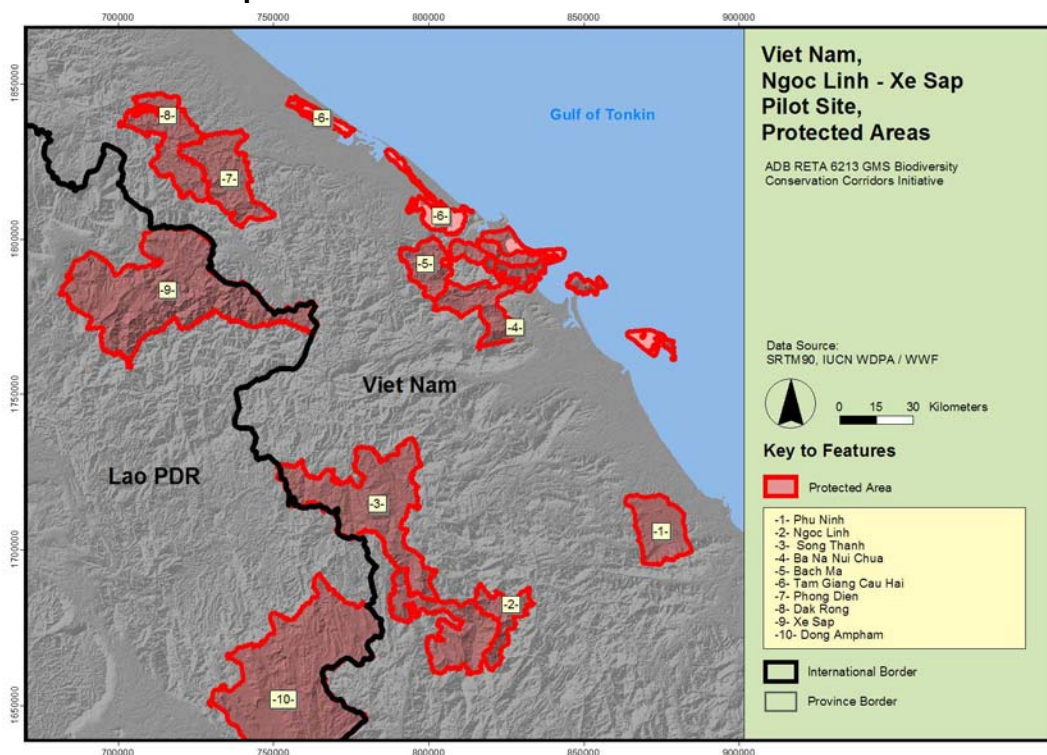
1. Under the Greater Mekong Subregion (GMS) Biodiversity Conservation Corridors Initiative (BCI) currently being implemented as Asian Development Bank (ADB) regional technical assistance (RETA) 6213, biodiversity corridor pilot sites for 2005-2008 in each GMS country are to be selected based on the following criteria:

- (i) Falling within GMS economic corridors or their zone of influence
- (ii) Reducing ecosystem fragmentation by linking two or more protected areas
- (iii) Areas of international biodiversity importance
- (iv) Areas of high poverty incidence and population growth
- (v) Being of a transboundary nature
- (vi) Having institutional (state and nonstate) capacity on the ground that is currently active in implementing one or more projects.

2. In Viet Nam, the Central Annamites is ranked as a “critically important” landscape because of its unique assemblages of species representing one of the world’s most important areas of biodiversity, having the highest levels of endemism in a continental setting. The landscape is highly threatened by habitat fragmentation, primarily due to the construction of roads and their resultant impacts. The landscape is bisected by two sections of the east-west economic corridor and the Ho Chi Minh Highway in Viet Nam cuts through the landscape.

3. Being threatened in many places, the forested landscape of the Central Annamites requires a comprehensive strategy to mitigate habitat fragmentation (Map 1) and enhance forest connectivity. This document outlines a phased approach to ensuring the continuity of the central Truong Son landscape between 2006 and 2016.

Map 1. Protected areas in the Central Annamites

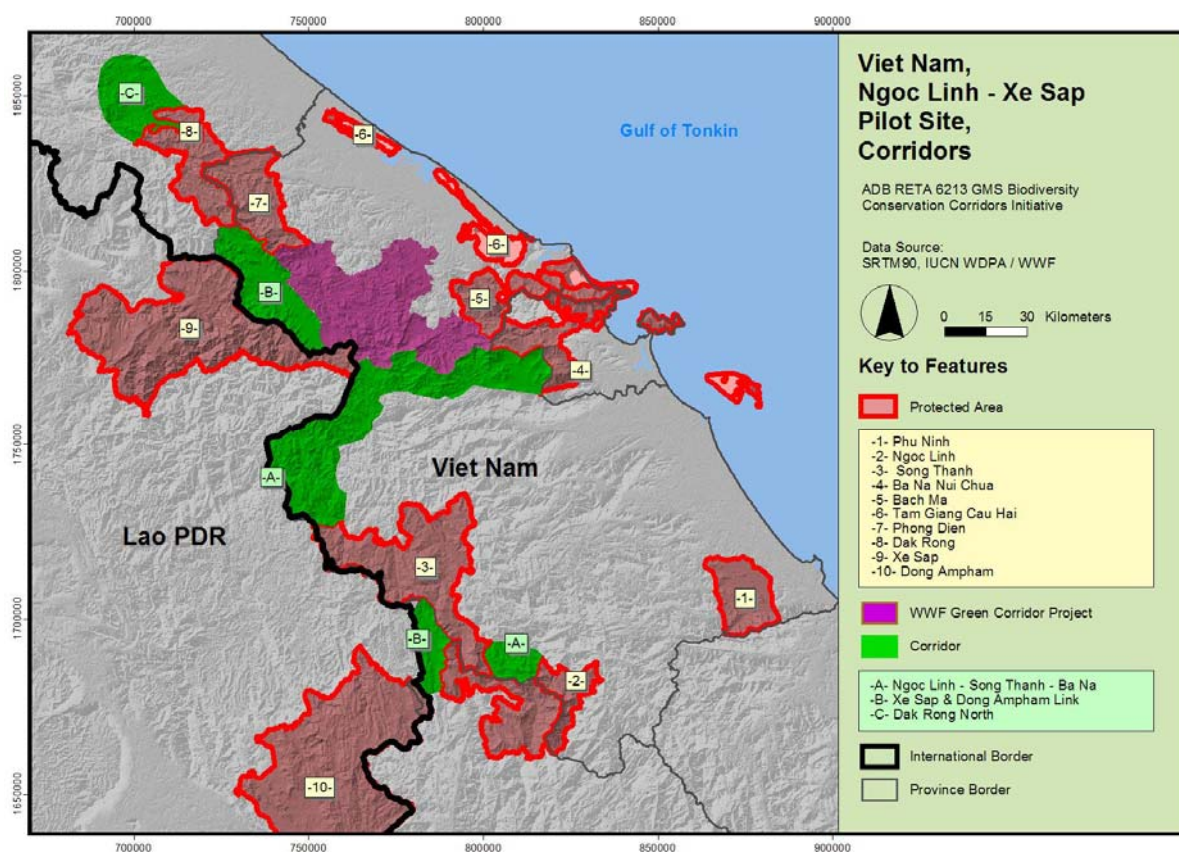


4. The Central Annamites landscape is a focus of conservation attention for the governments of Viet Nam and the Lao PDR with support from international conservation organizations. This profile builds on ongoing work of the Government of Viet Nam in the central Truong Son biodiversity conservation initiative.

B. Selection and Location of Pilot Sites

5. The project is focused in Quang Nam Province (Map 2) and bordering areas of Thua Thien Hue and Kon Tum provinces of Viet Nam and Sekong and Attapeu provinces in the Lao PDR. Quang Nam is a central province of Viet Nam in the Indo-Malayan zoogeographic region and in the subunit Ma (Central Annamite Mountains). Three smaller ecoregions cover parts of the province: the Northern Viet Nam Lowland Rain Forest, the Southern Viet Nam Lowland Dry Forest, and the Southern Annamites Montane Rain Forest.

Map 2. Biodiversity corridors proposal in Viet Nam



6. In the Central Annamites, the initial investments (during Phase 1) will focus on the northern part of the landscapes, where the immediate threats are, for example, the roads with direct impacts in Quang Nam Province. Project phases (Table 1) are designed in sequence to tackle the areas of highest risk first, while not losing sight of the long-term goal of maintaining a continuous forest landscape. Table 2 shows the districts and communes covered by the project.

7. The successful implementation of all phases will ensure that

- connectivity of nine protected areas is made,
- the Central Annamites landscape remains intact,
- the Central Annamites landscape is connected to the Central Indochina Limestone landscape, and
- the Central Annamites remains connected to the tri-border landscape.

Table 1. Central Annamites corridor phases

| Phase | Province | Connections |
|----------------------|--|--|
| Phase 1 2005-2008 | Quang Nam | Ngoc Linh-Song Thanh–Xe Sap–Ba Na |
| Phase 2 2009-2011 | Quang Nam Thua-Thien Hue and Kon Tum | Upscale Ngoc Linh-Song Thanh–Xe Sap–Ba Na Bach Ma–Xe Sap–Phong Dien Ngoc Linh–linking to Dong Ampham (Lao PDR) |
| Phase 3 2012-2014 | Quang Tri | Dak Rong–linking to Xe Sap–adjacent landscape |

Table 2. Provinces, districts and communes covered by the project phases

| Province | District | Communes |
|----------------|------------|----------|
| Quang Nam | Tay Giang | 8 |
| | Dong Giang | 5 |
| | Nam Giang | 8 |
| | Phuoc Son | 8 |
| | Nam Tra My | 6 |
| Thua-Thien Hue | A'Luoi | 10 |
| Kon Tum | Dak Glei | 6 |
| Quang Tri | Dak Rong | 10 |
| | Huong Hoa | 6 |

C. Description of Proposed Pilot Sites

8. Seven landscape connection corridors will be the focus of project conservation activities (Table 3) with five landscape fragmentation zones the focus of project restoration and protection activities (Table 4). Map 1 identifies the location of these areas.

Table 3. Landscape connection corridors of the Central Annamites

| Phase | Landscape connection corridor | Description |
|---------|-------------------------------|--|
| 1 and 2 | Song Thanh–Ba Na | Situated in three districts of Quang Nam (Nam, Tay and Dong Giang), this area is critical watershed for a suite of dam projects including Song Bung IV and A'Vuong. Bisected by the east-west economic corridor's road 14D, this corridor links Song Thanh to Xe Sap, Bach Ma, Ba Na, and the Green Corridor area. |
| 1 and 2 | Ngoc Linh - Song Thanh | A small area of Phuoc Son District, Quang Nam Province |

| Phase | Landscape connection corridor | Description |
|-------|------------------------------------|---|
| | | covering two communes, this section of high-altitude forest is an important link to strengthen the key corridor of the protected area landscape of the Central Annamites; the Song Thanh–Ngoc Linh connection. |
| 2 | Xe Sap–Green Corridor | The area west of the HCMH in A’Luoi district, Thua-Thien Hue Province, this connection will join conservation activities in the Green Corridor to the Xe Sap allowing secure connections between Xe Sap, Phong Dien and Bach Ma PAs. |
| 2 | Ngoc Linh/Song Thanh–Dong Ampham | Situated within Dak Glei district of Kon Tum province this critical area lies in the transition zone between the Central Annamites and the tri-border forests. It is located within the ADB central highlands forestry project area and bisected by the HCMH. |
| 3 | Dak Rong–Xe Sap–adjacent landscape | Covering a proposed protected area bridge between the Central Annamites and the forested landscape to the north this area will ensure the connection between Dak Rong and Xe Sap through to the proposed Huong Hoa protected area in northern Quang Tri. |

ADB = Asian Development Bank; HCMH = Ho Chi Minh Highway; PA = protected area.

Source: WWF Indochina–Viet Nam Programme

Table 4. Landscape fragmentation zones of the Central Annamites

| Phase | Landscape fragmentation zones | Description |
|---------|-------------------------------|--|
| 1 and 2 | Song Thanh–14D | Road 14D of the east-west economic corridor runs along the northern part of Song Thanh NR and through the core zone to the west. It may be diverted into the core zone due to the construction of the Song Bung IV dam. This dam project will supply compensatory forestry activities to reforest along the road and stabilize the surrounding slopes. |
| 1 and 2 | Song Thanh–HCMH | The HCMH poses a great threat to landscape connectivity, especially where it cuts through PAs. It bisects Song Thanh Natural Reserve in the south and reforestation activities are required to maintain connectivity. |
| 1 and 2 | Tay Giang/A’Luoi–HCMH | The HCMH poses a great threat to connectivity of this landscape also. This area is critical saola habitat and protection/reforestation work is required to conserve this species. |
| 2 | Ngoc Linh–HCMH | The HCMH poses a great threat to connectivity here, especially where it cuts through PAs. It bisects Ngoc Linh (Kon Tum) Nature Reserve in the south and reforestation activities are required to maintain connectivity. |
| 3 | Dak Rong–Huong Hoa | The east-west economic corridor bisects Quang Tri Province, although one section of the road has been put aside by the People’s Committee to ensure forest connectivity between Dak Rong Nature Reserve and the |

| Phase | Landscape fragmentation zones | Description |
|-------|-------------------------------|--|
| | | proposed Huong Hoa reserve. Support to this initiative will benefit conservation and mitigate the environmental effects of the economic corridor |

HCMH = Ho Chi Minh Highway; PA = protected area

Source: WWF Indochina–Viet Nam Programme

D. Biodiversity Values

9. The proposed corridors are of high conservation importance. They are located at a large altitudinal gradient, constitute a critical watershed for major downstream development and dams, and are key links in the Central Annamites landscape.

10. The focal provinces contain a rich biodiversity. In Quang Nam¹, 49 species of large mammal have been confirmed with an additional 12 provisionally recorded through interviews. Nine confirmed and two provisionally recorded large mammal species are classed by the World Conservation (IUCN) as globally threatened: vulnerable². Additional large mammals are found in the greater landscape including gaur (*Bos gaurus*) and yellow-cheeked crested gibbon (*Namascus gabriellae*). Twenty two species of bat are confirmed. Of particular note are the recently discovered saola (*Pseudoryx nghetinhensis*), Annamite muntjac (*Muntiacus truongsongensis*), large-antlered muntjac (*muntiacus vuquangensis*), Annamite rabbit (*Nesolagus timminsii*), and grey-shanked douc (*Pygathrix cinerea*). All of these large mammals have been described since 1993 and are endemic to the Annamites with the grey-shanked douc being endemic to the southern Central Annamites in Viet Nam.

11. A total of 272 birds species are confirmed from Quang Nam, two of which are globally threatened: vulnerable – the crested argus (*Rheinardia ocellata*) and golden-winged laughing thrush (*Garrulax ngoclinhensis*). Two species described since 1999 are found in the landscape along with 14 range-restricted species (including the enigmatic Edward’s pheasant, *Lophura edwardsii*) covering two endemic bird areas and several bird areas classified as important.

12. Quang Nam has 48 taxa of reptiles, including six vulnerable species of turtle and 35 amphibians; one, the Annam flying frog (*Rhacophorus annamensis*), is globally threatened: vulnerable. The Annam leaf turtle (*Mauremys annamensis*) and Bourret’s box turtle (*Cuora galbinifons bourreti*) are both on the verge of extinction and endemic to the landscape, the former not known from a single field record.

13. There are 194 butterfly species in Quang Nam and tens more across the landscape. A total of 1,129 species of plant in 164 families have been identified in Quang Nam, and six are classified as globally threatened: vulnerable, most being valuable timber trees, and 47 species classed as vulnerable by the 2003 Viet Nam Red Data Book.

14. Natural forests of the Central Annamite landscape span some 17,175 square kilometers (km²) across an altitude range of 0–2,598 meters (m). Quang Nam has 4,259 km² of natural forest (Table 5) and almost as much bare land. The forests of Quang Nam are critical for watershed protection as the province receives annual floods causing millions of dollars of

¹ All Quang Nam data provided by WWF Indochina – Viet Nam Programme’s MOSIAC project

² IUCN 2003. 2003 IUCN Red List of Threatened Species. <www.redlist.org>. Status: 9 February 2004.

damage. Moreover a series of large and medium-sized dams are under construction or planned. Forest protection would bring significant economic and development returns.

Table 5. Forest and forestland in Quang Nam (km²)

| | Total | Special-Use Forests | Protection Forest | Production Forest |
|-----------------------|----------|---------------------|-------------------|-------------------|
| Forest and forestland | 7, 948.9 | 1,161.4 | 5,145.5 | 1,641.9 |
| A. Forested land | 4,259.2 | 8,58.2 | 2,507.3 | 893.5 |
| 1. Natural forest | 3,888.0 | 854.5 | 2,289.4 | 744.0 |
| Woody forest | 3,788.7 | 851.5 | 2,219.9 | 717.2 |
| Bamboo forest | 99.3 | 3.04 | 69.4 | 26.7 |
| 2. Plantation | 3,71.1 | 3.68 | 217.9 | 149.5 |
| B. Bare land | 3,689.7 | 303.1 | 2,638.1 | 748.4 |

Source: Quang Nam FPD

E. Threats

15. Significant threats to biodiversity are:
- (i) Illegal hunting driven by the wildlife trade
 - (ii) Illegal logging
 - (iii) Infrastructure development: dams, roads
 - (iv) Gold mining, and
 - (v) Migration and development along roads

F. Demographic Profile

16. Some 8 million people live in the Central Annamites. The remoter, often mountainous areas, encompassing most of the priority conservation areas, are among the poorest in the country. Most of the groups in the mountainous areas are ethnic minority peoples, such as the Ka Tu, Bru, Pa Co, M'Nong, Gie Trieng, and Gia Rai. The Kinh people, Viet Nam's majority ethnic group, dominate the lower-lying areas.

17. Ethnic minority peoples are geographically clustered. Although they represent only 30% of the national population they make up close to 100% of the population in Kon Tum, and some districts of Quang Nam and Thua-Thien Hue.

18. The population in the Central Annamites region includes 37 ethnic minority groups, although only 11 can be regarded as indigenous, having resided there for many generations. Nine percent are recent migrants, mainly settling in Gia Lai and Kon Tum.

19. During 1996–2000, the gross domestic product (GDP) in the region increased by over 9% annually; higher than the national average. The region still relies on agroforestry production, representing 50–60% of GDP, although in recent years the industrial sector has expanded dramatically, mainly through construction in urban areas and investment in infrastructure. Industrial crops, such as coffee, rubber, and pepper, are an important factor in GDP growth, but they are heavily dependent on export markets and international pricing. During 1999–2000, economic growth slowed in the Central Annamite provinces due to natural disasters, drought, and falling prices for agricultural products.

20. Dependence on forest resources varies from one ethnic group to another. Those poor minority communities located in remote mountainous areas are highly dependent on forest resources for their food production, building materials, handicraft material, and cultural practices. Many ethnic minority peoples still practice shifting cultivation (making it difficult to obtain "red-book" land ownership certificates). The Kinh majority is less forest-based although they also hunt and gather in the forests. More significantly, the Kinh practice permanent cultivation. Expansion of settlements and agricultural production have resulted in clearing large swathes of lowland forest, decreasing the area and biodiversity of critical habitat, and fragmenting forest cover.

21. Economic development has gradually reduced dependence on agriculture. Yet, progress has been slow, especially in predominantly agricultural provinces such as Kon Tum. Annual income per head is around \$200, 70% of the national average, with Kon Tum the lowest at \$170.

G. Ongoing Project and Conservation Activities

22. The Central Annamites Landscape was subject of a biological assessment (Tordoff *et al.*, 2003³) which resulted in a Ministry of Agriculture and Rural Development (MARD) landscape conservation plan that covers the region on the Vietnamese side.

23. **Quang Nam.** A provincial conservation strategy has been developed in Quang Nam with technical support from the WWF MOSAIC project, which runs until at least 2008. A provincial land allocation program is underway, providing community access to and protection rights over natural resources. Provincial action plans on law enforcement and education have been developed as part of a management plan for Song Thanh Nature Reserve. Working examples of community-based natural resource management (CBNRM) are being developed in 14 communes. Species surveys, monitoring, and protection systems are being developed. Training in natural resource management for government and communities is an integral part of all activities.

24. **Thua-Thien Hue.** Phong Dien Nature Reserve has support from the McArthur Foundation through the Hue Forest Protection Department until 2006. The four-year WWF Green Corridor project will develop a provincial conservation plan, land-use planning, species protection, strengthened enforcement, CBNRM, and land allocation to communities.

25. **Kon Tum.** Ngoc Linh (Kon Tum) Nature Reserve has developed an operational management plan for submission to the Global Environment Facility (GEF) Viet Nam Conservation Fund. The district covered by the corridors initiative is also a focal district for the Asian Development Bank (ADB) community forestry project.

26. **Quang Tri.** Dak Rong Nature Reserve has received three years support from the McArthur Foundation. BirdLife International work in all forested areas of the province and is planning to scale-up activities in the future.

³ Tordoff, A.W., Timmins, R.J., Smith R.J. and Mai Ky Vinh 2002. *Central Annamites Biological Assessment*. WWF Indochina/WWF US, Hanoi and Washington D.C.

H. Policy and Legal Framework

27. Following are major national plans and programs with implications for the proposed pilot site project.

28. **Comprehensive Poverty Reduction and Growth Strategy (CPRGS).** This is an action plan that translates the Government's Ten-Year Socio-economic Development Strategy, Five-Year Socio-economic Development Plan, and other sectoral development plans into concrete measures with well-defined road maps for implementation. The plan has economic growth and poverty reduction objectives. The CPRGS is closely related to the national annual socioeconomic development plans and the plans developed by different ministries, agencies, and sectors. The national annual socioeconomic development plan that is passed by the National Assembly serves a tool for bringing the policies and measures contained in the CPRGS into practice.

29. The CPRGS has important linkages and intersects with the Government's current Ten-Year Socio-Economic Development Strategy (2001–2010) and accompanying Five Year Development Plan (2001–2005). In addition, it also shares many common objectives with the Hunger Eradication and Poverty Reduction (Program 133) and the program on Socio-Economic Development in Communes with Extreme Difficulties (Program 135).

30. **Biodiversity Action Plan.** The Government drafted the 1995 Biodiversity Action Plan (BAP), which maps out broad strategies for strengthening institutional capacity in the management of protected area, wetlands, and biological diversity in general. These strategies are consistent with the obligations of Viet Nam under the 1992 UN Convention on Biological Diversity (CBD). A new ten-year BAP is under preparation.

31. **National Environment Protection Strategy (NEPS).** The NEPS provides the policy orientation for national environment protection up to 2020 and is an integral part of Viet Nam's Socio-Economy Development Strategy. It aims to (i) to slow down the growth of environment pollution; (ii) remedy environment erosion and improve environment quality; (iii) deal with environment pollution and enhance capacity to cope with natural disasters; (iv) appropriately exploit and use natural resources while ensuring ecological balance, and (v) realize global environmental standards while limiting the negative impacts of globalization on Viet Nam's economic growth.

32. **The Five Million Hectare Program (5MHRP).** The 5MHRP was approved by the Parliament in 1997 and by the Prime Minister with Decision No. 661/QD – TT dated July 29 1998. The 5MHRP extends from 1998–2010 and aims to (i) increase nationwide forest coverage up to 43% of the total land cover; (ii) develop timber wood supply for the paper industry, and (iii) develop domestic supplies of high-quality wood for the wood processing industry. According to a recent assessment of the Forestry Department, between 1998 and 2003, a total budget of VND3.848 billion was allocated to this program. State budget funds accounted for VND2.444 billion or 63.5% of the program.

33. **Management Strategy for a Protected Area System in Viet Nam to 2010.** This important strategy was approved by the Prime Minister in September 2003 through Decision No.192/2003/QD-TTg. It aims to improve general awareness of the importance and value of natural resources and biodiversity and improve the capacity of local authorities and protected

area management boards in managing these resources. This strategy will also help to identify areas for funding support and international cooperation.

34. **Central Truong Son biodiversity conservation initiative (2004-2020).** The central Truong Son biodiversity conservation initiative's long-term objective is to establish an integrated mosaic of complementary land-use and development practices to protect, manage, and restore natural resources and biodiversity in the Truong Son (Central Annamites), while contributing to institutional development, good governance, and an increased standard of living for local communities. The landscape covers six provinces of Quang Tri, Thua Thien Hue, Quang Nam, Kon Tum, Gia Lai, Binh Dinh and Da Nang City.

35. **Quang Nam Biodiversity and Natural Resource Conservation Strategy (2005-2020).** Twenty-nine forest management units (FMUs) are identified in Quang Nam. Priority ranks have been assigned to each FMU based on the following criteria: forest size, hunting pressure, isolation threat, biodiversity and watershed importance, presence of priority and flagship species, and length of important rivers. The implementation of this strategy is based around appropriate planning for sustainable forest and freshwater management. It is recommended that district-level forest and freshwater management steering committees be formed to develop appropriate management plans for each FMU, starting with FMUs of highest priority. The first five years of the strategy will focus on these issues, implementing activities in the highest-priority areas and creating provincial processes that can be replicated across other areas in the future.

36. **Ho Chi Minh Highway protection instruction letter.** Forest cover protection along the Ho Chi Minh Highway has been given special priority by a letter issued by the Prime Minister through MARD in 2002/3.

I. Links to other ADB initiatives

37. A number of ADB projects in the region also intersect with the proposed pilot site areas. The most significant of these include:

38. **Forests for Livelihood Improvement in Central Highlands.** A project preparatory technical assistance will assist the government in implementing a forestry policy that will enhance sustainable natural resource management and environmental protection; improve food and livelihood security; and reduce social, economic, and gender inequities as well as poverty by improving on-off-farm incomes, particularly of ethnic minorities living in or near forests in the central region. The proposed project, with a total cost of about \$77 million, is expected to begin in 2006, subject to the approval of the Board of Directors.

39. **Song Bung IV Hydropower Project.** The objective of the technical assistance is to prepare the proposed 165 megawatt Song Bung 4 Hydropower Project located in Vu Gia-Thu Bon River basin in Quang Nam Province in central Viet Nam for ADB financing (executing agency is the Electricity Authority of Viet Nam-EVN). A dam (120 m high, 360 m long, and 340 m wide) would be built across the Bung River creating a reservoir with a storage capacity of 621 million cubic meters and a surface area of 18.4 km². It has been estimated that reservoir inundation would require the resettlement of 188 households (mainly ethnic minority families – 1,096 individuals) in 5 hamlets from the flooded section of highway 14D. The total project cost has been estimated at D3.425 billion (\$218 million).

40. **Economic corridor development.** In an effort to improve intraregional transport and maximize benefits derived, GMS countries have begun to adopt a holistic approach to development, in the form of economic corridors. The central component of this flagship project of ADB is the 1,450-km long road connecting Da Nang in Viet Nam on the eastern end, with Mawlamyine in Myanmar on the western-end, cutting across central Lao PDR and Thailand. The eastern section of the east-west corridor transport infrastructure is scheduled to be completed by 2006/07.

J. Proposal

1. Goal of project

41. To maintain the ecological integrity of the Central Annamites landscape through improved management of core areas for biodiversity conservation and watershed protection and the sustainable development of landscape linkages through the creation of government-community comanagement mechanisms.

2. Objectives

42. The project has five objectives:

- (i) Poverty alleviation through sustainable use of natural resources and development of livelihoods
- (ii) Clear definition of optimal land uses and harmonized land management regimes
- (iii) Restoration and maintenance of ecosystem connectivity
- (iv) Capacity building in government staff and local communities
- (v) Sustainable financing mechanism and structures integrated with government planning and budgeting procedures

3. Indicative pilot project activities

a. Poverty Reduction

- (i) Community-based forest management
- (ii) Economic evaluation of poverty alleviation impacts of CBNRM
- (iii) Market analysis study, assisting communities in linking products and markets
- (iv) Enrichment planting by communities in restoration areas on piecework basis including establishment of nurseries
- (v) Establishment of review mechanisms, including measuring of impact

b. Harmonized Land Management and Governance Regimes

- (i) Establishment of mechanisms for legal harvesting by communities
- (ii) District forest protection management planning

c. Restoring Ecosystem Connectivity

- (i) Forest restoration using native species in corridors and along the transport network
- (ii) Enforcement along roads in six districts
- (iii) Tree surveys, monitoring, and protected area strengthening
- (iv) Landscape-level analysis of existing and proposed developments, (in particular industry, road, dam, and infrastructure projects), trade patterns, and production and investments

- (v) Limit the impact of large infrastructure developments in important areas for conservation

d. Capacity Building

- (i) Training of rangers
 (ii) Community training in CBNRM and market linkages
 (iii) Capacity building at district level

e. Sustainable Financing

- (i) A comprehensive valuation of the existing and potential development contribution of natural systems in the region when effectively conserved and managed, including studies of upstream-downstream relationships
 (ii) Promote the testing of payment for environmental services mechanisms for large infrastructure development, especially road and dam construction

4. Major targets and complementary activities

| Objective | Targeted by project | Actions | Complementary ongoing activities |
|--|--|---------|--|
| Poverty Reduction | | | |
| 1.1 | Community-based forest management in 40 communes | | Community-based forest management in 20 communes |
| 1.2 | Economic evaluation of poverty alleviation impacts of CBNRM | | CBNRM impact monitoring indicator development |
| 1.3 | Market analysis study | | |
| 1.4 | Enrichment planting by communities | | |
| 1.5 | Review mechanism establishment including impact studies | | |
| Harmonized Land Management and Governance Regimes | | | |
| 2.1 | Establishment of legal community harvest mechanism | | Land allocation |
| 2.2 | District forest protection management planning in 5 districts | | |
| Restoring Ecosystem Connectivity | | | |
| 3.1 | Forest restoration using native species in corridors and along the transport network | | Possible compensatory forestry through ADB Song Bung 4 dam project Community forestry in Green Corridor |
| 3.2 | Enforcement along roads in 6 districts | | Interdepartmental enforcement plan development |
| 3.3 | Tree surveys and monitoring Protected area strengthening | | Large mammal monitoring Protected area strengthening |
| 3.4 | Analysis studies | | Ho Chi Minh Highway district-level land-use planning and enforcement operations |
| 3.5 | Impact mitigation actions based on 3.4 | | |
| Capacity Building | | | |
| 4.1 | Training of rangers | | Training of rangers |
| 4.2 | Community training in CBNRM and market linkages | | Community training in CBNRM |
| 4.3 | District-level authority training | | |
| Sustainable Financing | | | |
| 5.1 | Valuation studies | | |
| 5.2 | Investigation of PES mechanisms | | Example of PES through ADB dam financing |

5. Enrichment planting and reforestation targets

43. The following areas are available for enrichment planting and reforestation. The actual number of hectares to be covered per annum in Phase I will be slow in year 1 but will gather pace in years 2 and 3. The total areas will depend on budget availability.

Table 6. Areas requiring enrichment planting and reforestation in Quang Nam corridors (in ha)

| Commune | Scrub area for enrichment planting (ha) | Bare land for reforestation (ha) |
|--------------|---|----------------------------------|
| A'Vuong | 8,114 | 6,345 |
| B'Halee | 3,407 | 3,229 |
| A'nong | 4,910 | 686 |
| A'Tieng | 3,613 | 1,539 |
| Lang | 12,220 | 9,632 |
| Tr'Hy | 5,469 | 2,971 |
| A'Xan | 4,486 | 3,014 |
| Gari | 3,538 | 1,846 |
| Ch'Om | 1,510 | 1,865 |
| Ta Lu | 5,929 | 1,512 |
| Song Kon | 5,387 | 1,237 |
| A'Ting | 5,071 | 1,447 |
| Ba | 5,237 | 1,413 |
| Tu | 6,882 | 1,742 |
| Phuoc Thanh | 4,156 | 1,767 |
| Phuoc Loc | 4,305 | 4,983 |
| Cha Val | 3,300 | 7,338 |
| Dak Pring | 22,036 | 8,216 |
| Zuoih | 6,108 | 17,070 |
| La Ee | 11,548 | 10,817 |
| La De | 11,687 | 5,373 |
| Dak Pre | 5,258 | 3,559 |
| Total | 144,171 | 97,601 |

6. Additional activities at national level

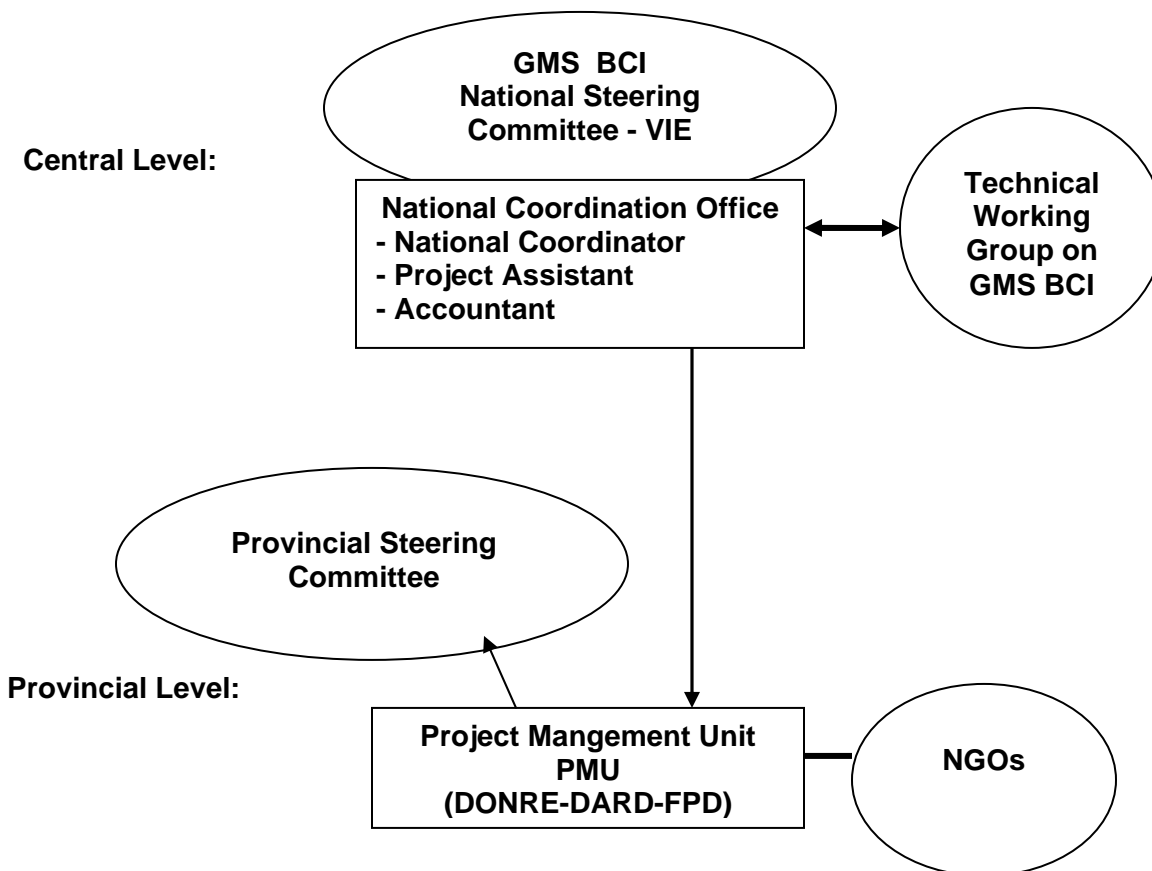
44. In addition to the pilot site, national activities have been identified:
- (i) Biodiversity surveys (e.g., eastern Ngoc Linh and other potential sites) and socioeconomic assessments and description of present status in Viet Nam (biodiversity status report)
 - (ii) Studies (assessments) and exchange of experience with international experts in conservation, and development of a biodiversity law and related policies and regulations
 - (iii) Support for drafting a biodiversity law with decrees and guidelines
 - (iv) Overviews and overlays of data using existing information and updates
 - (v) Review of the planned hydropower scheme and coordination of activities on compensatory forestry with ADB, if project is implemented
 - (vi) Assistance in carrying out environment impact assessments in potential pilot sites where major infrastructure projects are planned (e.g., overall impact of the economic corridor)

G. Implementation

1. Institutional arrangements

45. The institutional setup proposed for implementing the BCI in 2005–2008 is as follows (Figure 1):

Figure 1. Proposed institutional setup



FPD = Forest Protection Department; MARD = Ministry of Agriculture and Rural Development; MONRE = Ministry of Natural Resources and the Environment; NGO = nongovernment organization

46. At the national level, there will be a national steering committee consisting of a representative from:

- (i) Department of Environment (MONRE)
- (ii) Department of Science and Technology (MARD)
- (iii) Forest Protection Department (MARD)
- (iv) Foreign and Economic Department, Ministry of Planning and Investment (MPI)

47. The tasks of the national steering committee will be to (i) provide policy direction and guidance, (ii) approve work plans and budgets, (iii) review progress, and (iv) resolve issues and conflicts.

48. The national steering committee will have a working group consisting of representatives from:

- (i) Department of Environment (MONRE)
 - (ii) International Cooperation Department (MONRE)
 - (iii) Viet Nam Environment Protection Agency (VEPA)
 - (iv) FPD (MARD)
 - (v) WWF
 - (vi) IUCN, and
 - (vii) Institute of Ecology and Biological Resources.
49. The technical working group will have the following roles:
- (i) Promote field and monitoring visits
 - (ii) Promote training and information dissemination
 - (iii) Carry out technical screening of proposals or organize such screening by a competent group of technical experts
 - (vi) Formulate work plans for the national level and submit them to steering committee for approval
 - (v) Review work plans of the province (where the pilot site is located) and make recommendations to the national steering committee
 - (vi) Discuss national biodiversity issues and formulate a regulatory framework.
50. The national coordination office will function as follows:
- (i) Represent the project externally
 - (ii) Act as a secretariat to the national steering committee
 - (iii) Chair meetings of the working group
 - (iv) Prepare and submit progress and financial reports to the national steering committee
 - (v) Arrange for field visits, workshops, seminars, trainings, meetings
 - (vi) Disseminate information
 - (vii) Submit proposals and recommendations to the national steering committee
 - (viii) Contract external specialists for technical screening of proposals
 - (ix) Implement national level activities or organize such implementation.
51. The provincial steering committee will consist of representatives of provincial people's committee (Chair), DONRE, DARD, FPD, and DPI.
52. The provincial steering committee will guide and oversee the project management unit (PMU) at the provincial level. The PMU will be irresponsible for implementation of activities at the project pilot site.
53. Two national-level project accounts (one in US\$ and one in VND) will be established (or existing accounts used) and operated by the national coordinator with countersignature of the accountant. Project funds from this account will be disbursed to various implementers (PMU in the province implementing the project, national consultants carrying out assignments, etc.) as per approved work plans of the national steering committee. Disbursements will be undertaken semi-annually. NGOs will receive direct disbursements from ADB.

I. Project Implementation Partners

54. Building on existing efforts and investments on the ground, site-specific activities in the Quang Nam pilot site will be carried out by the provincial PMU with technical support from existing nonstate partners, such as WWF and BirdLife International. WWF is present in most sites and it is proposed that community-based work, capacity development, protected area

strengthening, and studies are carried out through WWF in all areas except in Quang Tri, where BirdLife International are best placed to assist. Forestry work should be channeled through the respective provincial governments, but should follow the successful models developed (e.g. by Kreditanstalt für Wiederaufbau [KfW] in Thanh Hoa and Nghe An provinces).

55. In addition, local or national NGOs will be brought into various stages of implementation as the need arises.

56. It is imperative that provincial government institutions, people's committees, and NGOs draw up a joint strategy for project implementation stipulating clear responsibilities in the form of an integrated plan of operations (see section below) that enables targeted and smooth implementation of activities in the pilot sites.

J. Operationalizing Pilot Site Activities

57. Following adoption of the resolution on the BCI program at the GMS Summit in Kunming in July 2005, ADB will formulate a regional technical assistance (RETA), detailing the program for Phase I (2005–2008) and for securing funding commitments, which will be described in the RETA paper. The RETA paper will be sent to the GMS countries for concurrence.

58. On receiving concurrence from GMS governments and securing program funding, ADB, in its capacity as the GMS secretariat, will call on the coordinators of the Working Group on the Environment to send official nominations of GMS country representatives, who will sit in the BCI Regional Coordination Committee with the BCI national coordinators. ADB will also follow standard procedures to put in place the regional program coordination unit (PCU).

59. Once the regional PCU is in place, it will request the BCI national coordinators to call on nongovernment collaborative partners and provincial authorities to work out a draft plan of operation for the first year of implementation. At this stage, any institutions (government and nongovernment) that have regional or cross-cutting activity proposals can submit these to the regional PCU. The PCU will also activate a technical advisory panel (TAP) with terms of reference laid down in the RETA paper and work with the TAP secretariat to get the regional or cross-cutting activity proposals screened prior to the inception workshop for Phase I.

60. Each BCI national coordinator will submit to the regional PCU a draft plan of operations that must contain: (i) work plan (activities with timeline, responsibility, and milestones); (ii) budget with costs related to activities; (iii) monitoring plan with indicators of expected achievements by end of year one and those by year three; and (iv) a logframe for the pilot site project. In detailing the work plan, the national coordinator and implementation team will select priority activities from the indicative list suggested in the pilot project profiles. In particular, the plan of operations should indicate under which functions the land-use and corridor configuration is being undertaken: (i) protection—where focal species are sensitive to habitat change; (ii) low-intensity land use—where focal species can withstand some disturbance; (iii) mitigation—where ecological processes should be conserved (e.g., watershed or hydrology: ensure steeper slopes, riparian zones forested); (iv) land-use patterns and configuration for dispersal ability (continuous vs. patchy/stepping stone habitats). A priority activity in the work plan will also be the provincial land use and zoning exercise at provincial level. If necessary, the BCI national coordinators can request the regional PCU to provide technical assistance in drafting the plan of operations.

61. The plan of operations will be the main instrument of implementation and reporting project progress and any external supervision, monitoring or field visits by ADB or development partners and government will be guided by the plan of operations.

62. The BCI national coordinator office will also enter into a standard memorandum of understanding (MoU) with the NGO(s) for that particular project site, which can later be extended to other sites if mutually agreed. The text of the MoU will be supplied by the regional PCU and will form the basis for project site implementation responsibilities of the parties concerned.

63. On receiving the draft plan of operations from the BCI national coordinators, the regional PCU will circulate these to the TAP to get feedback. The TAP will scrutinize the draft plan of operations for plausibility, realistic targets, and approaches as per details contained in the pilot site proposals. Any adjustments or modifications of the pilot site proposals suggested in the draft plan of operations will also be scrutinized.

64. Representatives from implementing (government, nongovernment, and potential national consultant) institutions in the GMS will be invited to participate in the inception workshop to finalize the work plans and budgets. Once these have been finalized, the first regional coordination committee (RCC) will be convened, which will deliberate over submissions and give its approvals and decisions. Probably, the first RCC could be held back-to-back with the inception workshop. The BCI national coordinators will attend the RCC meetings as observers. The proceeding of the RCC will be recorded by the regional PCU and distributed to all RCC participants. Once approvals are given, disbursement instructions will be issued by the regional PCU as per minutes of the RCC meeting and funds will be provided to the BCI national coordinator office and the NGOs as per approved plan of operations. For regional activities, funds will be disbursed directly by the regional PCU to the implementers (these could be international/national consultants or institutions).

65. On receiving funds from the BCI program, the national coordinators will convene a meeting of the national steering committee and hold a program orientation workshop to launch pilot site activities. Six-monthly progress reports will be collected and collated by the national coordinators and submitted to the regional PCU. Standard reporting formats and deadlines will be provided by the regional PCU.