

Conservation International
Biodiversity Corridor Planning and Implementation program (Corridor)

Annual Progress Report
FY03: October 1, 2002 - September 30, 2003

September 30, 2003
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Summary of Activity Status and Progress

A) Introduction

This report covers activities in the period of October 1, 2002 - September 30, 2003 for the USAID Biodiversity Corridor Planning and Implementation Program (Corridor) Cooperative Agreement. Under the USAID/Global Bureau Leader with Associates Global Conservation Program, Conservation International (CI) is implementing biodiversity corridors in three priority areas: the Kanuku Mountains and New River Triangle region of southern Guyana, the Sierra Madre mountain range in the northern region of Luzon, Philippines, and the Cerrado/Pantanal region of south-western Brazil. The purpose of these programs is to establish functioning biodiversity corridors over the five-year life of the Agreement. Each of the regions has made progress toward this goal. The Enforcement Economics program is developing an economic model of how to help countries effectively enforce protected areas and related regulations. This report provides an update on the progress of each of these programs.

The Highlights and Successes section below summarizes some key activities and outcomes of each country program. The Activities section provides a summary of objectives and activities for the country programs.

B) Highlights and Successes

BRAZIL

A principal threat to biodiversity and ecological integrity in the Cerrado-Pantanal Corridor is the general lack of knowledge regarding relevant issues, which makes planning, enforcement and local support for conservation within the region more difficult. The situation also argues strongly for programs that increase public awareness, generate enthusiasm and actively engage local stakeholders.

I. STORY 1

As a result of CI's efforts, rural schoolchildren in Mato Grosso are gaining a better understanding of fire, its role in the local ecology and how fire needs to be managed to protect domestic animals, native species and habitats. Uncontrolled fires – the result of misguided land-use policies – are an easily recognizable threat to wildlife and wild lands within the Corridor. Cattle deaths and fish kills are routine consequences. They beg for changes in attitude that must begin with the younger generations and culminate in more active involvement by entire communities in fire management efforts. Historically, the adverse effects of fire have not concerned people in this region.

In response to this need, CI launched a pilot Environmental Education Project for rural school teachers from August 7-9, 2003 in Bonito, Mato Grosso do Sul State in collaboration with Municipal and State Secretaries for Education, the Environmental Education Department of SEMA, and the Aguapé Network. Thirty-eight teachers and environmental education technicians attended the course, "The Use of Fire and its Implications", from eight Corridor municipalities. Nineteen (19) interactive activities were developed, encouraging teachers to discuss the issue of fire with their students in the context of biodiversity conservation and habitat fragmentation.

Trained teachers are already disseminating their new skills. One has begun interactive activities with 280 children and 37 adults in the Corumbá municipality. CI's role now is to bring this program to additional municipalities within the Corridor and to broaden the existing curriculum.

II. STORY 2

The Secretary of the Environment of Mato Grosso State (SEMA) recently signed into law the Rio Negro State Park – the first state park created within the Pantanal region. Up until recently, Brazilian government agencies paid little attention to the need for creating parks and reserves in this, the world's largest remaining wetland. While a fair amount of the Pantanal remains intact and pristine, only a small portion of its land area is officially protected. Thus the fragmentation of habitat and declining wildlife populations remain significant threats throughout much of this Neotropical wilderness.

In August 2003, CI and the Brazilian NGO Environment Pantanal (IMAP), representing SEMA, signed an agreement to implement the Rio Negro State Park, acquiring close to 11,000 hectares (14%) of the park's 78,000-hectare total. The Nhecolândia region in which the state park is located was designated a high conservation priority based upon a 1999 CI AquaRAP expedition (*A Biological Assessment of the Aquatic Ecosystems of the Pantanal, Mato Grosso do Sul, Brasil*). Along with three neighboring private reserves, the Rio Negro State Park also forms one of the Corridor's principal nuclei. Local landowners were wary about the park's creation at first, yet they were open to information about the importance of protected areas and worked closely with CI throughout this process. In fact, they have even requested that the governor to create a second state park near the headwaters of the Rio Negro Basin. CI and its partner IMAP continue not only to allay public concerns about bringing new lands under government protection but to actively enlist local landowners in the process of creating new parks and reserves, which bodes well for increasing overall levels of habitat protection in the Cerrado-Pantanal Corridor.

III. STORY 3

CI recently launched the "Biodiversity Corridor Municipalities" initiative, mobilizing 15 municipalities within the region: Alcinoópolis, Aquidauana, Bonito, Corumbá, Costa Rica, Coxim, Nioaque, Rio Verde and Rio Negro in Mato Grosso do Sul State; Alto Taquari, Chapadão do Céu, Mineiros, Portelândia, Santa Rita do Araguaia and Serranópolis in Goiás State. Without coordination at this level of governmental authority, the prospects for implementing Corridor-wide programs would not be very bright.

Prior to this initiative, regional authorities could not effectively share environmental data or conservation tools, nor were there adequate opportunities for professional training in these fields. Local conservation programs were carried out largely in isolation. CI forged multiple partnerships and created an active network via this initiative. Participating municipalities were selected based on their inclusion within key river basins, the location of established or prospective conservation units within their jurisdiction and existing levels of threat to biodiversity. A comprehensive database allows for joint analyses of environmental, social and economic trends, as well as for the design and zoning of new protected areas, core nuclei, and Corridor-wide boundaries.

By providing municipalities with information gathering and management tools, CI improves their overall capacity for environmental planning and natural resource management. Technicians receive training in the use of Global Information Systems (GIS). Local GIS laboratories have been installed and equipped in all participating municipalities. Satellite images will be provided to these facilities for at least the next three years and the same training opportunities are being made available to technicians from the Mato Grosso do Sul State Secretary for the Environment (SEMA), the State Land Department (IDATERRA), Oreades (an NGO based in Mineiros), the Brazilian Institute for the Environment (IBAMA) and COINTA (Inter-municipal Taquari River Committee).

From April through August 2003, 68 technicians were trained in Mineiros and Campo Grande. Local teams are now ready to produce thematic maps (i.e. vegetation, land-use, altitude, roads, soil) and all the

data compiled during the training process is now available to participating municipalities. One project already resulting from this initiative is the creation of a 6,162-hectare park in the municipality of Alcinópolis. The park's implementation is due largely to the work of technicians trained earlier this year. The initiative's second phase will include the engagement of other municipal segments in problem solving and planning, as well as the establishment of a network of Environmental Education nuclei at each participating municipality.

GUYANA

I. STORY 1

Seven years ago, the Government of Guyana designated the Kanuku Mountains as one of five important sites for protection. At that time, the eighteen affected communities were fearful and suspicious that a protected area would mean forfeiting access to their land. At one point, they even managed to bring the Kanuku Mountain Protected Area (KMPA) process to a halt. Since then, however, a significant degree of community consensus and support to declare the site a protected area have been garnered. The indigenous stakeholder communities are more aware and involved than ever before. For the first time, they are also actively seeking to participate, organize themselves and be represented in the KMPA.

CI Guyana, as the government appointed lead agent, used a transparent and participatory approach. It allowed us to engage communities and move from decades of stalemate and inactivity towards commitment and action. As a result, the Kanuku Mountains have been selected as a pilot site for a proposed World Bank/GEF-funded program establishing an entire system of protected areas in Guyana. This decision is in stark contrast with the Bank's 1998 decision to withdraw from the National Protected Areas System (NPAS) project. Once declared, the KMPA can also serve as a framework for implementing socio-economic changes for one of the country's poorest indigenous groups. Investing in participatory methods, as well as education and awareness programs had dramatic results. CI Guyana works closely with the communities and established relationships based on trust.

Sharing information

A protected area must take into consideration the needs of the local communities. Therefore, we facilitated Community Resource Use Evaluations (CRE) to collect this data. It enabled the communities to share their knowledge and gather information about the ways they use the Kanuku Mountains resources. It also gave individual community members the opportunity to actively participate in a process that will affect their futures.

One of the most exciting experiences of the workshops was the transformation of the participant groups. Each CRE began with twenty-five people from all ages, and all levels of formal education and knowledge of resource use. No one really knew what to expect, yet everyone joined in and worked hard throughout the activity. The participants who knew the forest best were frequently those who had the least formal education and who rarely attended meetings or participated in community activities. They were a part of what was termed the community's "hidden knowledge group". They responded to the call for participants even though they felt they could not write or speak English well. (Their attendance is credited to the zealotry of the leadership workshops, which were held prior to the CRE). These same people led bush teams, learned to use the global positioning system units, and completed data forms. Most importantly, they stood before their communities presenting their work and sharing knowledge that many of their fellow villagers have lost. The wider community members in turn, hearing the presentations by familiar persons and who spoke their language, became engaged in the process. As a result, these participants actively influenced future land use planning for conservation and socio-economic development in the protected area.

PHILIPPINES

I. STORY 1

On August 14, 2003, Governor Edgar Ramones Lara and the Provincial Government of Cagayan made a major commitment towards eliminating conservation gaps within the Sierra Madre mountain range. On this date, Lara issued an executive order establishing the Cagayan Council for the Cagayan Sierra Madre Biodiversity Corridor, a multi-stakeholder corridor management institution. This step is a significant increase in commitment to environmental concerns by a provincial government that is constantly attempting to balance natural resource management and economic development goals. The council brings together government agencies, civil society and the private sector to discuss conservation and sustainable development in a way that has not happened in the past.

Previously, the government created institutions similar to the Council with the hope that different agencies would work together more effectively through them. CI felt that these earlier institutions had insufficient information and minimal participation from civil society, which created a lack of transparency. This led to the various government bodies that were members of these groups focusing more on their respective narrow mandates than on cross-institutional interests. Civil society groups and the private sector were not given the opportunity to dialogue with government agencies on crucial issues. And thus past efforts to build institutions like the Council have failed. The Council overcomes these difficulties. With its multi-sectoral membership and with the support of the SMBC Corridor Information System, the Council creates the conditions to build cross-sectoral partnerships for sustainable development and conservation.

Governor Lara also formally requested that the Department of Environment and Natural Resources (DENR) draft a Presidential proclamation for a Protected Landscape and Seascape in Cagayan (See attachment Philippine 1). The proclamation would exclude future extractive industry claims and void existing ones in the northern most portion of the SMBC. It would also help local communities participate more in managing and protecting the protected area by formally including them in a Protected Area Management Board (PAMB).

The decision is a result of our efforts to build alliances between government and civil society, and to enhance institutional mechanisms that support corridor conservation. This action shows how we are succeeding as a facilitator and “mentor” of others rather than attempting to implement on-the-ground action across the SMBC. Our success as a mentor of others has been built upon two strategic priorities: collecting, analyzing, and sharing information relevant to regional conservation and development decision-making and building technical capacity in partners to use this information effectively. We have partnered with key institutions like the Provincial Committee on Sustainable Development (PCSD) and the Regional Development Council (RDC), which Governor Lara chairs. Through these partnerships, we provided critical information and research results that persuaded the provincial government to take action through executive orders to enforce and support the protection and conservation of biodiversity in the province (See attachment Philippine 2).

This executive order is important because it gives this high biodiversity area increased protection, although not yet formal protected area status. This region includes an important area for Philippines’ bird life, including globally threatened species like the Philippine Eagle (*Pithecophaga jefferyi*), Spotted Imperial-pigeon (*Ducula caroloa*), and Green Racquet-tail (*Prioniturus Luconensis*). The next step will be getting formal national-level protection, which requires a presidential proclamation and congressional action. Governor Lara is already urging the DENR to draft and move ahead with these next important steps. While much work remains to be done, this order strengthens the national government’s declaration to suspend extractive activities pending a multi-sectoral committee evaluation.

II. STORY 2

For the first time, regional planners in the northern portion of the SMBC are thoroughly integrating conservation priority areas into development plans. This change is the result of our successes in building

partnerships to establish a Regional Geographic Information Network (RGIN). The information network is already having a positive impact on regional conservation. The data, including the priority conservation areas for the Sierra Madre Biodiversity Corridor, was used to update the Regional Physical Framework Plan. This is an important because the Regional Development Council uses this plan for approving major development projects and extractive industry applications. (See attachment Philippines 3).

Previously, major development planning efforts within the SMBC, like the Regional Physical Framework Plan, never incorporated conservation areas or utilized spatial data extensively using GIS to assess the impacts and trade offs of development decisions.

Alliances and partnerships are the key to success in corridor-scale conservation. Since the start of this project, CI Philippines has worked closely with the Regional Development Council (RDC), the development and resource use decision-making body of the Philippines' Region 2, on a variety of development and conservation planning issues. This year we persuaded them to establish the RGIN. Through technical training and logistic assistance of SMBC, the RGIN is now functioning. This means that for the first time there will be a regional database center housing key biodiversity data, which will be used in designing regional and provincial development plans.

With strong desire among the key decision makers to collaborate, the network will be accessible by local government and non-governmental organizations. As a result, it will promote development collaboration and coordination among these groups. It should also greatly enhance continued corridor planning and implementation efforts.

III. STORY 3

The Philippines is now only a few administrative steps away from putting 118,000 hectares of pristine forestland and adjacent marine areas in Peñablanca, Cagayan into permanent protected area status. The Peñablanca Protected Landscape and Seascape (PPLS) is adjacent to the Northern Sierra Madre Natural Park (NSMNP). Its establishment will bring over 475,000 hectares (NSMNP 359,486 + PPLS 117,072) under conservation management. This will be the largest block of forest under conservation management in the Philippines and provides habitat for most the threatened endemics in Luzon.

The protected area legislation for the PPLS has undergone its first and second readings in Congress. The Committee Secretariat, CIP and DENR are currently incorporating the comments and recommendations of the previous congressional hearings in preparation of the crucial third and last hearing. The value of this accomplishment in terms of excluding threats is two fold – NIPAS legislation will effectively exclude threats from major forest conversion activities like commercial logging and mining. It also provides for the creation of a legally recognized multi-stakeholder management group – a PAMB – that can facilitate improved management efforts to address threats such as slash and burn agriculture, illegal logging, and wildlife hunting.

We have made progress in this area by helping the Department of Environment and Natural Resources complete the required technical descriptions and stakeholder consultations and all the other required processes for official designation of PAs. The SMBC Corridor Program's efforts to support establishing and managing Protected Areas better in the Sierra Madre was, and to a large extent, still is in conflict with the DENR's traditional approach to forest management. The DENR focused on conventional corporate logging system and community managed sustainable forest management. We have been able to show that these systems are contributing to the rapid loss of forest resources. Our advocacy efforts have increased government support – local and national - to make a greater investment in conserving the remaining forest resources through the establishment of protected areas.

ENFORCEMENT ECONOMICS

Over the last year, all sites have successfully completed the enforcement economics analysis. In all sites, CI has worked closely with partners to develop cost-effective recommendations and action plans to strengthen enforcement. Towards this goal, we completed legislative reviews, enforcement system profiles, and profiles of illegal activities in all study sites, and gained access to quantitative and qualitative data. The legislative reviews and enforcement system profiles indicated preliminary weaknesses in the enforcement system; the complete analysis confirmed these. The data demonstrated that jurisdictional conflicts, poorly articulated laws, lack of capacity among field detection agents and prosecutors/judges contribute to weak enforcement systems in our case study sites.

One of the most important successes associated with this work has been creating de facto partnerships with enforcement agency staff. These partnerships facilitated data-collection efforts, and were important in securing support for the project's recommendations. This year's Participatory Design Workshops brought enforcement agency staff and other partners together to verify analysis results and jointly develop strategic recommendations. CI's engagement with these agencies has encouraged them to think about their performance in a way that they have not previously, and to see themselves as a holistic system. This process has also familiarized enforcement agency staff with CI's analytical framework, which should enable them to monitor their own performance in the future. These collaborative efforts ensure that enforcement agencies will be key proponents of activities to strengthen enforcement, a critical piece to sustain the project results.

Our global work has piqued interest in the enforcement economics rationale and methodology, and has drawn attention to how important enforcement is to conservation. Over the last year, we have shared information on enforcement work with a global audience including international NGOs (INECE, TNC, CIEL, etc), US agencies (USAID, State Department, President's Council on Environmental Quality, USDA Forest Service, Justice Department), and multilateral agencies (World Bank, EU). This audience has demonstrated much interest in our results, lessons learned, and recommendations. Subsequently, CI has been invited to participate in global and national (US and case-study countries) discussions on monitoring and strengthening enforcement performance. The interest generated by this project has highlighted the importance of enforcement to the global biodiversity conservation agenda. Our findings have encouraged these agencies to think about initiating enforcement-strengthening programs in the places they work worldwide. These developments have laid the groundwork for future efforts to move beyond mere information sharing, to working with global partners on a common global agenda to strengthen environmental enforcement.

I. STORY 1

The highlight of the Enforcement Economics project in Selva Maya was that key agencies and stakeholders are developing strong partnerships to improve enforcement. Open inter-agency dialogue on the problems plaguing enforcement has never happened in Selva Maya before, so this is a unique accomplishment. Our program brought government agencies, conservation organizations, and research organizations together to support a broad Initiative on Wildlife Hunting and Trade in Selva Maya. This collaboration and a strong alliance supporting biodiversity conservation are imperative to change incentives for illegal hunting and trade in wildlife at the corridor-scale.

Over the last year, the list of project partners has expanded to include, among others: the *Secretaría de Medio Ambiente y Recursos Naturales* (SEMARNAT), the *Procuraduría de Protección al Ambiente*, (PROFEPA), the *Comisión Nacional de Areas Naturales Protegidas* (CONANP), the *Instituto de Ecología* of the *Universidad Nacional Autónoma de México* (UNAM), TRAFFIC-México, Amigos de Sian Ka'an A.C., and Pronatura A.C. These partners form an Advisory Committee which worked with CI

on the development of the initiative and design of interventions. This committee will continue to work on financing and implementing the jointly-developed recommendations to address illegal hunting and wildlife trade in the region. This is the first group of government institutions, academia, NGOs and government, in Mexico dedicated to discussing and improving enforcement of wildlife trade and illegal hunting regulations.

The partners reviewed and verified the analysis of pertinent environmental legislation and enforcement economics study findings during a Participatory Design Workshop in April 2003. Based on CI's analysis, the partners agreed on key weaknesses in the enforcement regime and unanimously agreed to strategic interventions to improve effectiveness of enforcement. An important accomplishment of this process was that it motivated PROFEPA and other government agencies involved in enforcement to change their attitudes towards strengthening enforcement. These agencies have now committed to cooperate with partners to mitigate key enforcement weaknesses. This attitude change was partly reflected providing CI access to quantitative and qualitative information that the government considers restricted. NGOs and academia had previously been unable to accessing this data .

II. STORY 2

CI has developed a broad-based network of government bodies and NGOs working to strengthen enforcement in Papua. This network includes the armed forces, and CI regularly briefs new recruits on the laws regarding wildlife trade. The strength of this enforcement network has resulted in hitherto confidential enforcement data being shared between institutions and made public. This data has been analyzed using the enforcement economics approach to identify the critical weaknesses in the enforcement "chain". CI also gathered new information last year on the quality of enforcement by conducting surveys of wildlife markets in Manokwari, and by monitoring the progress of particular illegal-logging cases

This information was presented and analyzed in participatory meetings of the network.

Thirty-two key stakeholders from across Papua attended the Participatory Design Workshop held in January 2003. The workshop concluded with joint "Calls for Actions". One, on the needed for greater inter-agency cooperation, lead to Governor Decree No. 50/2003 regarding the "Establishment of Integrated Team to Combat Illegal Logging in Papua". The Decree was issued in June 2003. The Papua Forestry Service will shortly issue guidance on how to implement the Decree, and CI will play an important role.

The need for training was another of the "Calls for Action". CI led a training design workshop with network members. Then, in collaboration with BKSDA and Papua Forestry Services, CI carried out the agreed program, training forest rangers, Forest Civil Investigators, Police, Prosecutors, and Judges from 5 regencies (Jayapura, Sorong, Manokwari, Biak, and Merauke). Representatives from the armed forces also attended the training sessions – a key step, given the critical need for the military to ensure their own personnel comply with logging and wildlife trade laws.

III. STORY 3

In the Philippines, CI and ELAC made significant strides in catalyzing inter-agency discussions on enforcement in the Calamianes. Relevant agencies (local government, Coast Guard, Maritime Police, PCSD, Tagbanua foundations, and Department of Justice) came together for the first time ever to understand the links between them, and to identify the bottlenecks impeding their effective performance. This engagement and partnership building enabled CI and ELAC to convey the need to look beyond each agency's perception of their limitations, and to explore the enforcement system as a holistic unit. CI and ELAC were able to impress upon these partners the role that each agency plays in contributing to the overall strength or weakness of the system. This "buy-in" has proven invaluable to the process of collecting data by these agencies. The partnerships will also be very important in later stages of the

project, as we seek to build consensus around project findings and develop and implement cost-effective strategies to improve enforcement.

These partnerships have also been important to building consensus around project findings and developing recommendations. Support of partners is necessary to successfully and cost-effectively improve enforcement. Key local officials from at least three municipalities in the Calamianes region attended the Participatory Design Workshop (PDW) held in May 2003. At this workshop, local officials together agreed on strategies to better enforce fisheries laws.

A highlight of the PDW was the agreement to hold an enforcement summit among top local officials of the four municipalities in the Calamianes. The goal of this summit is to establish a common local policy framework to address common fishery problems in the area. Such a framework would essentially take the form of a uniform fisheries ordinance passed across municipalities. This ordinance would provide a basis for: specific prescriptions regarding common fishery problems, regulatory mechanisms, zoning schemes and an administrative adjudication mechanism to expedite handling cases and imposing penalties.

C) Table of Activity Status

Activity Number	Activity Title	Status*	Page number for more information
Brazil			
1.1	Lead process to create zoning plan	On-track	13
1.2	Support state and federal agencies to design and implement monitoring and evaluation process for corridor	On-track	13
1.3	Help regional, state and municipal leaders use monitoring and evaluation in planning	On-track	14
1.4	Help municipalities improve their ability to collaborate in planning and implementing the corridor	On-track	14
2.1	Create network of connected protected areas with involvement of government agencies and stakeholders	On-track	14
2.2	Support government agencies to create and implement management plan	On-track	15
2.3	Improve fire management	On-track	15
3.1	Increase technical knowledge of public institutions	Completed	15
3.2	Build capacity of enforcement officers	Completed	16
3.3	Build public support for enforcement	Delayed	16
4.1	Develop and stimulate alternative economic uses of natural resources	On-track	16
4.2	Increase general understanding of value of biodiversity corridor and the public's role in planning and establishing protected areas and other natural landscapes	On-track	16

Activity Number	Activity Title	Status*	Page number for more information
4.3	Build capacity of key stakeholders to participate meaningfully	On-track	17
Guyana			
1.1	Biodiversity and Socio-economic corridor assessment completed	On-track	19
1.2	Design and operationalize integrated Corridor Information System	On-track	19
1.3	Corridor learning system/adaptive management in place and operational	On-track	19
1.4	Establish a participatory planning and implementation framework and process	On-track	19
1.5	Research to clarify possible long-term financial mechanism for conservation	On-track	19
2.1	Formulation of a proposal to establish Kanuku Mountains protected area	Delayed	20
2.2	Implement management plan for CI's conservation concession	On-track	21
2.3	Capacity-building for the Upper Essequibo conservation concession	On-track.	21
2.4	Develop and implement awareness campaign for new or existing protected areas	On-track	21
3.1	Establishment of Nappi Balata Artisan Group as an independent and sustainable conservation enterprise	On track	21
3.2	National strategy on conservation enterprise	On-track	22
Philippines			
1.1	Support GIS capacity building within the regional NEDA office to use the existing Corridor Information System in their planning processes	Completed	24
1.2	Support efforts of Local Coordinating Units at the provincial level to incorporate biodiversity considerations into provincial development planning and decision-making	Completed	24
1.3	Implementing a monitoring and evaluation system for the corridor and	On-track	24

Activity Number	Activity Title	Status*	Page number for more information
	incorporating it into all our partnership activities		
2.1	Providing technical assistance and support to the Department of Environment and Natural Resources (DENR) in developing the required background data and documentation for the proclamation of three expanded PAs	Completed	25
2.2	Compiling biological information at the Protected Area level for the Penablanca Protected Landscape and Seascape and the Quirino Protected Landscape	Completed	25
2.3	Facilitating the development of PA management plans for the expanded Penablanca Protected Landscape and Seascape and the Quirino Protected Landscape	On-track	25
2.4	Building the capacity of the Penablanca Protected Landscape and Seascape and the Quirino Protected Landscape Protected Area Management Boards (PAMBs) and local community members to manage these two PAs effectively	Completed	26
3.1	Promoting biodiversity compatible economic activities within the corridor	Completed	26
3.2	Implementing an awareness campaign to build understanding of and support for the corridor	Completed	27
	Enforcement Economics		
	A. Selva Maya, Mexico		
A.1.1	Profile enforcement system, illegal activities and threats to biodiversity, and secure support for the project from key stakeholders	Completed	29
A.1.2	Identify weaknesses in the enforcement system and develop least-cost investment strategy for addressing them	Completed	29
A.1.3	Identify cost-effective opportunities to reduce the incentives for illegal activities	Cancelled	30
A.1.4	Influence key decision makers to	Delayed	30

Activity Number	Activity Title	Status*	Page number for more information
	implement least-cost investment strategies to improve quality of enforcement		
	B. Papua, Indonesia		
B.1.1	Profile enforcement system, illegal activities and threats to biodiversity, and secure support for the project from key stakeholders	Completed	30
B.1.2	Identify weaknesses in the enforcement system and develop least-cost investment strategy for addressing them	Completed	30
B.1.3	Identify cost-effective opportunities to reduce the incentives for illegal activities	Completed	31
B.1.4	Influence key decision makers to implement least-cost investment strategies to improve quality of enforcement	Completed	31
	C. Palawan, Philippines		
C.1.1.	Profile enforcement system, illegal activities and threats to biodiversity, and secure support for the project from key stakeholders	Completed	31
C.1.2	Identify weaknesses in the enforcement system and develop least-cost investment strategies for addressing them	Completed	31
C.1.3	Identify cost-effective opportunities to reduce the incentives for illegal activities	Completed	32
C.1.4	Influence key decision makers to implement least-cost investment strategies to improve quality of enforcement	Delayed	32
	D. Global-level Activities		
D.2.1	Develop regional and global communications strategy for the project	Completed	33
D.2.2	Place commentaries and reports on the project in the regional and global media	On-track	33
D.2.3	Make presentations on the project in relevant regional and local conferences, workshops, and other forums	On-track	33

*Status may include activities that are completed, on-track, delayed, mixed performance, or cancelled.

II. Brazil

A) Key Short- and Long-Term Program Objectives for the Site

The biodiversity corridors project, conducted by CI-Brazil in association with the State Secretary for the Environment of Mato Grosso do Sul and the Emas Foundation has the long-term objective to link protected areas in the Pantanal and Cerrado regions through a network of private and governmental reserves and sustainably managed areas, allowing for the dispersion of key species and the protection of a relevant area of two of the most diverse and endangered ecoregions in Brazil.

The Cerrado-Pantanal Corridor program has also established additional short-term goals to help achieve this long-term objective. They are:

- To develop low impact economical approaches to encourage landowners to keep their legal reserves, permanently protected areas, and establish RPPNs;
- To reduce negative impacts of land management practices and use, such as fire, overgrazing, soil erosion and deforestation;
- To increase effective protected areas by 10 % in the south of the Rio Negro and Taquari river basins;
- To increase population monitoring on private property of key threatened species along the Cerrado-Pantanal Corridor;
- To build capacity in Corridor's municipalities to engage local actors in the planning and implementation.

B) Summary of Progress for Site

In order to achieve its ultimate Corridor Implementation goal, CI has established partnerships with key private and governmental institutions in the three Corridor states. The existing fragments in the Cerrado area have been identified, mapped and surveyed. The monitoring of these fragments requires rapid action to ensure protection from the accelerating and uncontrolled agricultural production. CI, Oreades, Oikos and the Emas Foundation are building capacity in Corridor's municipalities to monitor these fragments through satellite imagery mapping. The involvement of environmental municipal agencies and the ICMS law that provides higher funds for those municipalities with protected areas are encouraging many municipalities to create protected areas in the identified fragments, such as the Municipality of Alcinópolis, which created a 6,162ha Municipal Park. In addition, CI is seeking funds to assist the acquisition and management of these remaining fragments.

C) Activities

Objective 1: Lead participatory process to design and implement Corridor-level plan

Our experience shows that the long-term success of corridor-level projects ultimately depends on the ability of stakeholders to design and implement the plan. Therefore, CI is focused on integrating the participation of municipalities, government agencies and other stakeholders in development and implementation of the Cerrado-Pantanal Corridor. The key steps needed to create and implement the corridor plan are to:

- Create a zoning plan;
- Design and implement a monitoring and evaluation process for the Corridor;
- Develop a process that utilizes monitoring and evaluation data in future planning; and

- Establish mechanisms through which municipalities can collaborate in planning and implementing the corridor.

Activity 1.1 Lead process to create zoning plan

- A pilot diagnosis of the Corridor's environmental plan was undertaken in the municipality of Mineiros, employing local volunteers. Visits were made to 22 communities, during which information was gathered regarding soil use, social and environmental problems, and then presented to the municipality in June 2003. Groups were created to discuss issues of water quality, deforestation, solid waste disposal and the impacts of cattle ranching. A final document was drafted, compiling action plans and identifying community members responsible for recommended activities. The participating communities for its use under local UN Agenda 21 initiatives are now validating this document.
- To better understand the ecological significance of remaining tracts of habitat, a study of carnivore distribution and abundance was launched in the 132,000-hectare Emas National Park and the 200,000-hectare Rio Negro State Park/private reserve complex at opposite ends of the 500-kilometer-long Cerrado-Pantanal Biodiversity Corridor. A total of 262 sites were surveyed and censused, including 282,864 camera-trap sampling hours that yielded 1,543 carnivore photos. Of the 21 native species, 18 (86%) were recorded and a gradient of species abundance along the Corridor axis was noted.
- A three-day vegetation workshop was held in Campo Grande in January 2003; 38 scientists worked together to produce Corridor maps, classify vegetation and land-use practices, identify new conservation opportunities and initiate the Corridor zoning process. As a result of the workshop, four new priority areas were identified for inclusion in the Corridor. CI's GIS team is finalizing a map of the workshop results, which will be available during the next reporting period.
- Updating of the Corridor's biodiversity database continues, providing the best available information regarding soil use, species distributions and densities, environmental and physical characteristics, and levels of threat.

Activity 1.2 Support state and federal agencies to design and implement monitoring and evaluation process for corridor

- CI launched the "Biodiversity Corridor Municipalities" initiative in 15 representative municipalities: Alcinópolis, Aquidauana, Bonito, Corumbá, Costa Rica, Coxim, Nioaque, Rio Verde and Rio Negro (in Mato Grosso do Sul State) and also Alto Taquari, Chapadão do Céu, Mineiros, Portelândia, Santa Rita do Araguaia and Serranópolis (in Goiás State). The new initiative provides municipalities with an integrated database for analyzing environmental, social and economic trends, and is key to the design and zoning of new protected areas, core-nuclei, and corridor-wide boundaries. Partners in the initiative include the Mato Grosso do Sul State Secretary for the Environment (SEMA), the State Land Department (IDATERRA), the NGO Oreades from Mineiros, the NGO Oikos, the Brazilian Institute for the Environment (IBAMA) and the COINTA (Inter-municipal Taquari river Committee).
- An analysis was conducted of deforestation within the Corridor from 1989-2002, focusing on Cerrado habitats where deforestation has been most severe. Satellite imagery indicates a severe loss of habitat over the 12-year period, due mainly to increased cattle ranching. A second analysis added data from topographical maps and focused on the period 2000-2002. Nine topographic maps were analyzed covering the Emas National Park core nuclei area in the Cerrado portion of the Corridor. The results show recovery of Cerrado habitat in four areas of pastureland (Serra do Taquari, Taquari, Mineiros and Vila Buriti).

Technicians are now monitoring the recovery of these areas as part of the Biodiversity Corridor Municipalities initiative.

Activity 1.3 Help regional, state and municipal leaders use monitoring and evaluation in planning

- Meetings with watershed councils and other local partners demonstrated the need for better integration among institutions within their respective municipalities.

Activity 1.4 Help municipalities improve their ability to collaborate in planning and implementing the corridor

- Corridor staff and partners have begun preparing an environmental agenda for all municipalities in the Corridor. Members of COINTA used information received in training sessions of the Biodiversity Corridor Municipalities initiative to create new protected areas. For example, the Municipality of Alcionópolis (Mato Grosso do Sul State) is creating a 6,120-hectare protected area and in Taquari (Goias State) over 251,000 hectares are now slated to become new parks and reserves.
- Corridor staff conducted a meeting between representatives of three states (Goias, Mato Grosso and Mato Grosso do Sul) in September 2003 to discuss recovering degraded areas at Alto Taquari.
- The Corridor zoning process has been completed in partnership with municipality technicians and the results are available to them for natural resource management within their municipalities.

Objective 2: Work with key groups to establish and manage protected areas

The purpose of this Objective is to help local partners establish remaining key protected areas and to build the capacity for responsible management.

The key steps needed to accomplish this Objective are to:

- Create a network of connected parks and reserves; and,
- Develop and implement effective management plans.

Activity 2.1 Create network of connected protected areas with involvement of government agencies and stakeholders

- Corridor staff, in partnership with the Federal University of São Carlos and the NGO Oréades, are completing the following steps to promote Corridor's connectivity study:
 1. Definition of a protocol that will permit analysis of the Corridor with regard to landscapes, river basins and land use patterns;
 2. Reclassification of land use maps to select native areas (grasslands, savannah, Forest and floodplain) for analysis;
 3. Evaluation of habitat fragmentation and identification of conservation opportunities using landscape metrics (Fragstats software); and
 4. Comparative analysis of landscape types for the establishment of priority conservation and recovery actions within the Corridor.

- An integrated protected area network is being developed in Goiás State, including incentives for landowners to establish private reserves. CI is also a member of the newly created association of landowners of private protected areas in Mato Grosso do Sul State – REPAMS.
- CI assisted landowners interested in creating private reserves by providing information required by environmental agencies and was instrumental in the creation of two new private reserves totaling 141,908 hectares.
- Support for Emas National Park focused on: a) strengthening the relationship between park managers and local inhabitants; b) establishing monitoring programs; and c) capacity building for park staff. A local council was formed with representatives from the five surrounding municipalities and is now the forum for discussion of protected area issues, e.g., monitoring pesticide use in surrounding agricultural lands. Fire and invasive grass monitoring programs continued with much success, including plans for the eradication of invasive exotic grasses within the park.

Activity 2.2 Support government agencies to create and implement management plan

- A meeting was held June 8-9, 2003, at which researchers presented their results as part of the Corridor database system, which is now available via the Internet. The meeting also identified information gaps and the need to standardize methods for conservation research.

Activity 2.3 Improve fire management

Improving effective resource management includes improving current fire use practices.

- CI worked with local partners to create new volunteer fire brigades in two municipalities, Dourados and Corumbá. Technicians from SEMA and the Fire Department trained 272 people in fire management. Moreover, IBAMA trained 35 people and is hiring 21 firefighters for the Serra da Bodoquena National Park Fire Brigade.
- A pilot fire-monitoring program for the Serra da Bodoquena National Park is being designed in partnership with IBAMA, and Catholic University is helping CI adapt the methodology for application in the Pantanal.

Objective 3: Improve enforcement of environmental regulations

Environmental regulations governing private lands are poorly enforced within the Corridor. The key steps to improving enforcement are to:

- Increase the technical knowledge held by public institutions;
- Improve the ability of law enforcers to apply the law; and
- Build public support for enforcement.

Activity 3.1 Increase technical knowledge of public institutions

- The State Secretary for the Environment is part of the Biodiversity Corridor Municipalities initiative, representatives having attended at least five meetings from April-August 2003 for discussions of project design and training in GIS techniques and database management.

Activity 3.2 Build capacity of enforcement officers

- Environmental lawyers provided training to 68 municipal technicians, the focus being the Brazilian Forestry Code, environmental crimes and Environmental Impact Assessments (EIA).

Activity 3.3 Build public support for enforcement

- CI has focused its effort on state and municipal officials, ensuring that district attorneys and the environmental police will act upon environmental issues. In the municipality of Bonito, for example, the district attorney, in consultation with municipal technicians, has re-directed compensation funds from the mining industry to reforestation efforts in the Formoso Basin.

Objective 4: Build long-term social support and participation

Sustainable corridor-wide initiatives hinge on the support of local landowners. This Objective focuses on three powerful tools:

- Creating economic alternatives that support conservation;
- Increasing local understanding of values to the Corridor approach; and,
- Building public capacity for Corridor planning and implementation.

Activity 4.1 Develop and stimulate alternative economic uses of natural resources

- Training in apiculture continues to be provided in the Pantanal. Landowners who were trained in previous years now manage productive apiaries.
- The Pantanal Program promotes sustainable natural resource use practices throughout the High Paraguay Watershed. As part of the program, CI and OIKOS conducted a socioeconomic/environmental assessment of practices of the Kadiwéu indigenous community.

Activity 4.2 Increase general understanding of value of biodiversity corridor and the public's role in planning and establishing protected areas and other natural landscapes

CI continued to develop communication activities and products targeting key audiences according to the 4P workshop results.

- CI produced a brochure on organic beef. This bilingual 42-page publication includes basic information about organic beef production and the results of market research conducted in Sao Paulo, and is being distributed to cattle ranchers and agribusinesses, agriculture government agencies and farming associations.
- In partnership with Embrapa, CI launched a national essay contest about the Pantanal for 10- to 14-year-old students; approximately 1,000 entries were received. Authors of the eight best essays will travel to the Rio Negro farm to participate in a four-day biodiversity workshop in October 2003.
- In partnership with IMAP and IBAMA, CI held a press workshop on fire usage in the Pantanal in Campo Grande in September 2003. Although the local press routinely covers burns and forest fires, journalists rarely address their relationship to biodiversity conservation.

- CI carried out a pilot Environmental Education Project that targeted rural schools. The first training program focused on “The Use of Fire and its Implications”, providing teachers with knowledge and tools to discuss fire issues with students.
- CI continued its partnership with the Earthwatch Institute, a valuable tool for reaching teachers, under-graduate and graduate students, conservation professionals and landowners.
- Three Friends of Nature Workshops were held in different communities in FY03, presenting concepts of biodiversity and conservation directly to local people.
- CI partnered with the Federal University of Mato Grosso do Sul through its “UFMS Vai a Escola” program, providing young children and their parents with information about biodiversity, the importance of the habitat in which they live and reasons to conserve it.

Activity 4.3 Build capacity of key stakeholders to participate meaningfully

- II. CI provided technical assistance to staff at Emas National Park and Bodoquena National Park. However, we have faced difficulties in working with IBAMA, the federal government department in charge of creating private protected areas. IBAMA personnel were on strike for quite some time.

III. Guyana

A) Key Short- and Long-Term Program Objectives for the Site

The program’s main long and short-term objectives haven’t changed. Guyana has no comprehensive system of protected areas. The long-term objective of CI Guyana is to facilitate the establishment of a biodiversity corridor in southern Guyana, which would influence and link to other biodiversity corridors in northern Guyana and neighboring countries. To implement the corridor program in Guyana, CI is focusing its efforts to achieving conservation status for two sites: a conservation concession, which spans the upper reaches of the Essequibo River, and a protected area in the Kanuku Mountains and a potentially third site in the Southern Region of Guyana. These sites are expected to be strategic ‘anchors’ for the biodiversity corridor being implemented.

In the short-term, CI has in consultation with local communities and other stakeholders, completed gathering the relevant baseline data into a geographic information system, which would be used to guide the planning processes for the biodiversity corridor. CI is also engaging stakeholders to raise their awareness of the importance of resource conservation in the Kanuku Mountains through environmental educational programs. An improved stakeholder understanding of conservation issues and the protected area process is critical for generating the support needed among stakeholders for an informed consensus on the establishment of the protected area. CI is also seeking to develop a conservation enterprise in one of the stakeholder communities as a model of the potential links between conservation and development.

B) Summary of Progress for Site

The program was so successful this past year that it jumpstarted the \$6 million Government of Guyana and World Bank/GEF project establishing a National Protected Areas System for Guyana (GPAS). CI’s work laid the groundwork for a truly collaborative process establishing a protected area in the Kanuku Mountains. The methodology developed for stakeholder consultations and collaboration will be the basis of all GPAS consultations. The Community Resource Use evaluations (CRE), education and awareness and consultation programs with indigenous communities initiated through this project all helped build an understanding about protected areas within the indigenous communities in the Kanuku Mountains.

Our greatest accomplishment this year was the completion of the CRE in the 18 communities in and around the Kanuku Mountains. The CRE process focused on creating opportunities and tools that would enable the participants and the community at large to share their knowledge and to gather information to produce a profile of what resources are used, when and where that use occurs, and threats that exist to the continued use of resources. The data gathered during CRE's was compiled into individual reports and digitized map records of field trips for each community. The results of the CRE's provide a critical dataset for the design of the Kanuku Mountain Protected area.

The design of a protected area in the Southern Guyana region is another great achievement. Over the last year, the Wai Wai indigenous community from Southern Guyana requested CI's assistance in developing a protected area on their land - an area of over 1.5 million acres. CI assisted in coordinating discussions between the community representatives and the Government of Guyana. A series of consultations with the Wai Wai community and Wapishana communities who border on Wai Wai land were held in spring 2003. The area should be legally declared by January 2003 and integrated into the GPAS once formal protected areas legislation is complete.

C) Activities

Objective 1: Build biodiversity corridor planning and implementation support framework: Gathering baseline data, establishing a corridor information system and assembling the corridor project team are critical first steps to develop corridors in Guyana

This objective establishes the corridor implementation support framework providing all stakeholders with the information and capacity to plan and implement protected areas and biodiversity corridors. Since this is a wilderness area, these activities will proactively counter emerging threats. To establish this support framework, CI-Guyana compiled biological, socio-economic and geographic data into a corridor database. Additionally, CI-Guyana continued to utilize a highly transparent and participatory approach in planning for the protected areas and corridor.

Through this process and the Community Resource Evaluation (CRE), a significant amount of baseline data was collected. It will be incorporated into the corridor database to guide land use planning for conservation and socio-economic development in the biodiversity corridor.

However, effective long-term management of the protected areas and corridors also requires a substantial amount of sustained financial resources. Therefore, CI-Guyana collaborated with other stakeholders in developing a draft Term Sheet for the establishment of a National Protected Areas Trust Fund.

The CRE process involved active community involvement and transparency. It enabled the Kanuku Mountains Region indigenous communities to be fully informed on the nature of protected areas, attain the capacity required to fully support and participate in the process, make appropriate decisions and provide feedback to proposed plans for the protected areas and corridor.

During the past year, the involvement in the CRE process increased stakeholder support for our protected area and corridor initiatives. The indigenous stakeholder communities' expressed their support to the Government of Guyana. It was instrumental in garnering the extended political support that's been received. CI-Guyana documented lessons learned throughout the year and modified its program as a result.

Activity 1.1 Community Resources Evaluation

- CI-Guyana completed the Community Resources Evaluation in all 18 indigenous stakeholder communities of the Kanuku Mountains Protected Area process. It provided data on the spatial patterns of resource use by these communities. The individual communities, in turn, reviewed and approved their data. The completed Individual Community reports and an overview Master CRE Report were then presented to local, regional and national stakeholders for their feedback. Participants voiced their approval and appreciation for the opportunity to verify the data and were satisfied with the final reports.

Activity 1.2 Design and operationalize integrated Corridor Information System

- With the aid of GIS technology, CI-Guyana continues to integrate the relevant socio-economic and biological data into the biodiversity corridor information system. It guides our planning and implementation process in the core areas and biodiversity corridor as a whole. GIS capacity of Field staff also continued to be enhanced through on-the-job training.

Activity 1.3 Corridor learning system/adaptive management in place and operational

- Though a formal corridor learning system is not yet in place and operational, CI-Guyana continued to identify and analyze the lessons learned during the implementation of our biodiversity corridor. These lessons were documented to facilitate CI's preparation to adopt the adaptive management approach to the implementation of projects within the biodiversity corridor program. To date, only a few managers have documented lessons learned to guide the evolution and development of interventions based upon feedback received on changes in the local, regional and national situations. To ensure that all managers attain the capacity to document lessons learned, CI-Guyana will conduct internal training programmes to enhance their monitoring and evaluation skills required for the implementation of a formal learning system for all projects.

Activity 1.4 Establish a participatory planning and implementation framework and process

- During the period under review, CI implemented a broad base stakeholder management strategy. It involved a three-tier system i.e. local (indigenous communities), regional and national consultations. Additionally, bi-monthly meetings were held with representatives from indigenous Advocacy Groups to provide a forum to discuss issues and provide updates. Furthermore, Regional and National Advisory Groups were consulted on the process of establishing the biodiversity corridor. Policy staff continued meeting with representatives of political parties in Government to raise their awareness and political support. As a result of this activity, the Government of Guyana and CI signed an agreement on the way forward for establishing a protected area in Southern Guyana region. The Wai-Wai resident community also indicated their support for the Southern Guyana protected area.

Activity 1.5 Research to clarify possible long-term financial mechanism for conservation

- With increased stakeholders' support, CI started the legal analyses on the best format for a long-term national conservation Trust Fund. A draft Term Sheet establishing the Trust was prepared and revised. It proposes the key areas of collaboration, with a particular focus on the terms of the proposed national protected areas trust. The Finance Specialist also visited Guyana and presented the available options to the technical staff of CI Guyana and selected Government level stakeholders including members of the Cabinet and representatives from the Environmental

Protection Agency (EPA). The establishment of this financial mechanism is very important to ensuring financial sustainability to manage the protected areas and corridor over the long-term.

Objective 2: Protected areas created, strengthened and extended

Guyana does not yet have a legislative framework for establishing protected areas. Therefore most of CI's activities are geared towards setting the ground work for creating legally declared protected areas in southern Guyana and strengthening the overall management capacity for high priority biodiversity conservation sites. These areas form the anchors of the Southern Guyana Biodiversity Corridor. Specifically, we enhanced conservation and environmental education, built support for a proposal to the Government justifying protection of the Kanuku Mountains and built the overall capacity for implementation of the approved Conservation Concession's Forest Resources Management Plan. We learned that the general public, key stakeholders and policy-makers were suspicious of protected areas. Hence, CI-Guyana emphasized building support through education and awareness programs at the local, regional and national levels. We informed stakeholders of the potential benefits of protected areas, importance of biodiversity conservation, and their expected roles in the process of developing the protected areas

A set back to our progress in creating new protected areas was the decision to delay the preparation and submission of the Kanuku proposal. This was done to ensure enough time was available for the indigenous communities in the area to clearly understand the concept of protected areas and to complete the Community Resource Use Evaluations (CRE'S) in a participatory and transparent manner. Until recently, the Government of Guyana (GOG) was reticent to share geographic and non-geographic data. However, within the last two weeks the GOG and CI-Guyana have agreed on a data sharing mechanism to complete CRE datasets.

We hired the four Ranger graduates, members of the neighboring indigenous communities. The Rangers are expected to collaborate with the Community Conservation Clubs already established in the area to monitor the site.

Implementation of the concession Management Plan is aimed at securing the integrity of a pristine ecosystem before it is allocated for developmental activities such as commercial logging. It also promotes sustainable livelihoods in the indigenous stakeholder communities so as to reduce their dependence on trading of wildlife to suffice their socio-economic development.

Activity 2.1 Formulation of a proposal to establish the Kanuku Mountains Protected Area

- The newly compiled CRE data on the spatial patterns of resource use will be incorporated with the other national data sets to guide the development of a proposal on options for the protected area. These other data sets include socio-economic data (Gordon Forte, Preliminary Socio-Economic Survey of Amerindian Communities in The Kanuku Mountains Area: 2000), scientific data (Rapid Appraisal Program reports) and the infrastructure data for Region Nine. The availability of these data sets are critical for the creation of a successful proposal that is satisfactory to stakeholders and which takes into consideration areas of scientific, social and cultural importance. Therefore, preparation of the proposed management framework for the Kanuku Mountains has been delayed until the required datasets are completely analyzed and overlaid to the satisfaction of all parties involved in the proposal development process. Delays in analyses of the databases were because more time was needed to fully complete the collection of the CRE datasets.

Activity 2.2 Implement management plan for CI's conservation concession

- The Guyana Forestry Commission gave the Annual Operations Plan (AOP) an 86% approval rating. Implementation of the AOP ensured that CI's conservation outcomes were achieved within a matrix of socio-economic development in communities.
- A Field Base was established at Apoteri to support the implementation of the AOP and provide on-the-ground presence. A Voluntary Community Investment Fund (VCIF) was implemented to mitigate negative socio-economic impacts of the concession on the indigenous stakeholder communities. It promotes and manages sustainable community-based conservation enterprises.

Activity 2.3 Capacity building for the Upper Essequibo Conservation Concession

- CI-Guyana hired four well-trained and graduated Rangers. These Rangers are originally from the local indigenous stakeholder communities. Their appointment enhances management capacity at the Field Base and concession site.

Activity 2.4 Develop and implement awareness campaign for new or existing protected areas

- Production of teaching aids and tools targeted not only local and regional participants but also the wider public. Pamphlets, fliers, posters, fact sheets, video tapes and newsletters were produced to disseminate information on the importance of biodiversity conservation and allowed stakeholders to be kept informed on the status of developments in the protected areas process. These tools were utilized during training seminars and workshops and were complimented by the publication of conservation articles in the national print media. Collectively, these products helped to gain the support of stakeholders and policy makers for the establishment of protected areas by enhancing their knowledge on the importance of biodiversity conservation and countering negative publicity on CI Guyana's image.

Objective 3: Core nuclei of protected areas established

The design and implementation of alternative land uses for socio-economic development is a major requirement for the establishment of core nuclei protected areas. CI-Guyana continued working with the Nappi Balata Artisans to assist their transition to an independently managed, sustainable conservation enterprise. Simultaneously, we are concluding a case study of the Nappi Balata Enterprise to determine lessons learned and assist developing a national strategy for conservation enterprise development. In addition, CI-Guyana in collaboration with the GOG conducted an ecotourism-planning project investigating potential strategies for the development of tourism in the corridor.

Activity 3.1 Establish the Nappi Balata artisan Group as an independent and sustainable conservation enterprise

- The transition of the Nappi Balata Artisans Group to an independent business is in its final stage. The group currently manages all day-to-day functions of the business, utilizing email and internet, conducting own marketing trips, and managing its finances. The artisan managers have been trained in management, accounting and use of the internet. As members of the local Chamber of Commerce and as participants in the government supported Caribbean export initiatives, the Group has moved into the mainstream of Guyanese business. Artisans also represented the group at the annual Caribbean Gift Show in Grenada Their participation was co-sponsored by the artisans, CI, and the Caribbean Export Group.

Activity 3.2 National strategy on conservation enterprise

- The resistance to cultural changes explained above delayed the formulation of a national strategy for conservation enterprise development. Our strategy will be adjusted to complete the process by the end of FY04.

IV. Philippines

A) Key Short- and Long-Term Program Objectives for the Site

Our long and short-term objectives have not changed.

The implementation of the Sierra Madre Biodiversity Corridor (SMBC) Program is making significant progress towards actively involving all stakeholders in protection and conservation of biodiversity in the Sierra Madre in a way that balances the needs of people and species. The main short-term objectives are to protect key conservation areas and build the capacity of others to effectively manage these areas and plan for development that reduces pressure on them.

B) Summary of Progress for Site

The highlights of the major accomplishments in the corridor from October 2002 to September 2003 are:

1. Creation of new protected areas and / or the expansion of existing ones.

CI Philippines (CIP) and the Department of Environment and Natural Resources (DENR) completed the requirements for the proposed expansion of the Peñablanca Protected Landscape and Seascapes (PPLS) and the proposed establishment of the Quirino Protected Landscape (QPL). To date, the DENR Review Committee is studying various documents prior to submission to the President for legal proclamation of the PPLS and QPLS as protected areas. CI Philippines and the DENR have already submitted the Congressional PPLS Protected Area Bill No. 5826 in Congress and it has undergone a first and second reading. Its Senatorial counterpart bill is currently being revised incorporating second congressional hearing comments and recommendations. This is in preparation for the third and last hearing in Congress. Congressman Manuel Mamba sponsored the PA Bill in the Lower House of Congress while Senator Loren Legarda sponsors the counterpart bill in the Senate.

For the Quirino PL, a draft presidential proclamation has been drafted and awaits a DENR Review Committee resolution for the endorsement of the Secretary and subsequent presidential approval. Likewise a bill has been prepared for filing in the Lower House. Congressman Junie Cua volunteered to sponsor the bill and is actively lobbying for it before the upcoming Congressional session.

Working with the Cagayan Local Coordinating Unit (LCU), CI has facilitated the issuance of an Executive Order signed by Governor Edgar Ramones Lara declaring the Cagayan portion of the Sierra Madre Biodiversity Corridor a Protected Landscape and Seascape. Notably, Governor Lara's Executive Order included provincial government financial support for conservation management efforts. It also formally requested the DENR to undertake and facilitate the process for the presidential and congressional proclamation of the area as Protected Area under NIPAS. Additionally, this Executive Order created the Cagayan Council for the Sierra Madre Biodiversity Corridor, a multi-stakeholder institution that shall support the proper management of the Cagayan section of the Sierra Madre Biodiversity Corridor.

In Aurora, the Provincial Development Council (PDC) endorsed the proposed expansion of the Maria Aurora National Park. Local government units and communities' support for forest conservation triggered the PDC's action. It now sits with the Regional Development Council for approval. This endorsement is

significant. It represents the PDC's response to a Provincial Board proposal the declaring the forested area of Aurora province a "timber corridor" (i.e. commercial logging operations would be permitted). These forests serve as watershed areas for several communal irrigation projects in the province.

2. Protected Area Management Board strengthening and capacity building

Our plan not only makes investments in efforts to secure legal designation of new and expanded PAs, but also includes activities to develop and implement functioning management regimes in core corridor nuclei. To this end, we conducted a variety of seminars, workshops and training sessions designed to strengthen the capacities of the members of the Protected Area Management Boards (PAMB) of targeted PAs. PAMBs are multisectoral PA management bodies and include PA managers, representatives from local government units, people's organizations, and other community members. The trainings addressed protected area management, general biodiversity conservation, biodiversity monitoring, and para-legal and agro-forestry techniques. Reforestation trainings were held for Peoples Organizations and local communities in relevant areas. CI Philippines, DENR and CAVAPPED, a local NGO partner, also initiated a series of biodiversity conservation orientations for several government line agencies, local government units, and youth and women's groups.

A PA cross learning program was a great success. This is a new CEPF-funded activity responding to PAMB member's requests for more practical, experiential learning opportunities. CI, in conjunction with the DENR, organized a visit to Mt. Pulag National Park and Biak Na Bato National Park. PAMB members of Peñablanca Protected Landscape and Seascapes, Quirino Protected Landscape and Casecanan Protected Landscape participated. The trip was a great success. We learned the value of this type of activity for promoting strategies, exchanging ideas, and sharing experiences. We will build upon this success. It is an effective way to build institutional and individual capacity for implementation and the direct transfer of "know-how", particularly in the fields of eco-tourism development and protected area management.

3. Partnership/alliance building

Local and regional government authorities made significant progress towards integrating conservation priorities into development planning and decision making. Importantly, great progress was also made in building the systems and institutions to sustain this effort and make it less dependent on CI and our activities. The SMBC Corridor Information System has evolved and is being piloted within Region 2 of the SMBC as the Regional Geographic Information Network (RGIN). It is under the auspices of the Regional Development Council and will be managed by the Regional Database Center of the National Economic Development Authority (NEDA) office for Region 2. This initiative will ensure sustainability of information and data sharing which will be an important catalyst for improving regional development and conservation planning and decision-making.

C) Activities

Objective 1: Lead participatory corridor design, particularly ensuring that existing and on-going data collection and analysis efforts are incorporated into regional development planning efforts

The key activities for accomplishing this objective were:

- Support GIS capacity building within the Regional NEDA Office to use the existing Corridor Information System in their planning process
- Support efforts of Local Coordinating Units at the provincial level to incorporate biodiversity considerations into provincial development planning and decision-making
- Implement a monitoring and evaluation system for the corridor and incorporate it into all our partnership activities

Through a series of training workshops and meetings with the regional land use committee, CI Philippines facilitated the integration of priority conservation areas into the Region 2 Regional Physical Framework Plan (RPFP). Our goal is to ensure not only that the information was included in the plan but that it was also being widely used in all aspects of land management.

To enhance the effective use of the information system by various agencies and institutions, we worked closely with the Regional Development Council (RDC) for Region 2 to create the Regional Geographic Information Network (RGIN) framework. It is based in the NEDA office at the Regional GIS Center (RGISC). This network establishes a standard base map for the region that can guide all development and conservation planning activities at the regional, provincial and municipal level. The network's goal is to ensure that all decision makers at the regional, provincial and municipal level have the best available information when making decisions. It also guarantees a "level playing field" in planning that will improve the transparency of decision-making processes.

Activity 1.1 Support GIS capacity building within the regional NEDA office to use the existing Corridor Information System in their planning processes

- We accomplished this by first updating the corridor GIS-based Information System by incorporating socio-economic information into the database. This information was compiled in a CD-ROM and distributed to the local government units. CIP, with assistance from the National Mapping and Resource Information Authority (NAMRIA), then conducted a series of GIS manual analysis trainings for the technical staff of the Regional Land Use Committee (RLUC). Participants got hands-on experience using the GIS-based information system in developing the Regional Land Use Plans.

Activity 1.2 Support efforts of LCUs at the provincial level to incorporate biodiversity considerations into provincial development planning and decision-making

- CIP, assisted by NAMRIA, then conducted a series of training for the provincial and municipal planning and development offices in the region. The trainings included orientation on building a GIS Unit and spatial database infrastructure and information database network, as well as training in GIS manual analysis. This enabled the provincial and municipal planners to access the information from the NEDA Regional Database Center and use the spatial data in developing their comprehensive plans. An additional and unanticipated benefit of the training sessions was that it facilitated communication among stakeholders in the region and led to better coordination of activities and development projects.

To institutionalize the RGIN, NEDA developed a Memorandum of Agreement (MOA) to be signed by the Regional Development Council, Provincial Government, Regional Line Agencies and CI Philippines. This will increase the sustainability and effective implementation of the framework in all government line agencies in the Region.

Activity 1.3 Implementing a monitoring and evaluation system for the corridor and incorporating it into all partnership activities

- To enhance the SMBC biodiversity monitoring and evaluation system, CIP designed a survey questionnaire on the hunting pressure within the Sierra Madre. This questionnaire was distributed within the core zone areas in Cagayan, Nueva Vizcaya, and Quirino Province. In addition, we conducted a workshop in Sta. Fe, Nueva Vizcaya on the hunting of migratory birds, as well as other wildlife species. The goal is to determine which species are being hunted frequently and what percentages of these are threatened species. The data generated from this survey will be

analyzed and incorporated in the monitoring system that will be discussed during the SMBC Annual Stakeholders Conference in October 2003.

- To monitor the changes of the forest cover of Sierra Madre, CIP developed a 1988-2000-land use change detection map. It will be incorporated into the next revision of the GIS-based Information System for monitoring at the regional, provincial and municipal level and will be ground truthed to confirm the degree of change in forest cover. This data will serve as baseline information for future monitoring activities by partners within the Sierra Madre Biodiversity Corridor.

Objective 2: Work with key stakeholders to create and/or expand and effectively managed protected areas

The key activities for accomplishing this objective were:

- Develop the required background data and documentation for the proclamation of three expanded protected area.
- Compile biological information at the protected area level for the PPLS and QPL.
- Facilitate the development of PA management plan.
- Build the capacity of the PAMB and local community members to manage PA
- Support improved natural resource management of forests in the municipality of Baggaio.

Activity 2.1 Provide technical assistance and support to the DENR in developing the required background data and documentation for the proclamation of three expanded PAs

- CI Philippines, working closely with the DENR, is currently facilitating the proclamation of the proposed PPLS, QPL and the expansion of Aurora Memorial National Park under NIPAS. The proposed PPLS bill is currently being revised to meet the requirements of the last congressional committee hearing for legislative enactment.

Activity 2.2 Compile biological information at the PA level for the Penablanca Protected Landscape and Seascape and the Quirino Protected Landscape

- To support the proclamation of the proposed PAs and the development of PA management plans, CIP, DENR and other NGO partners and stakeholders conducted a series of biological surveys in priority areas. These include PPLS, QPL, North Eastern Cagayan PA (MT. Cagua Complex and Twin Peaks in the municipality of Baggaio), and Quezon province (Mt. Irid and Angilo Mountains). Several potential new species of frogs and reptiles were discovered and there was reconfirmation of the critically endangered Philippine Eagle's presence in the proposed Peñablanca PLS. New species distribution records were also revealed. The data will be incorporated in the PA management plans and will be used in identifying the different management zones ensuring that threatened species habitats will be under strict protection.

Activity 2.3 Facilitating the development of PA management plans for the expanded Penablanca Protected Landscape and Seascape and the Quirino Protected Landscape

- In Aurora Memorial Park, CI and DENR secured the endorsement of the municipalities covered by the proposed expansion. A Survey and Census of PA occupants is currently underway as part of NIPAS's 13-steps requirement for PA establishment.

Activity 2.4 Building the capacity of the Penablanca Protected Landscape and Seascape and the Quirino PAMBs and local community members to manage these two new PAs effectively

- To involve the local community in the planning process, CIP conducted a series of community planning and mapping activities in 7 barangays included in the expansion of Penablanca Protected Landscape and Seascape and five barangays inside the proposed Quirino Protected Landscape. These barangay plans were then used to update the municipal land use plan and design the PA management plan.
- To enhance the capacity of the local communities to participate in PA management, CI Philippines and DENR provided orientation and training for Protected Area Management Board (PAMB) and DENR PA staff. This included paralegal training, biodiversity monitoring systems and methods, general biodiversity conservation principles, PAMB roles, functions and responsibilities. A cross learning visit was held for PAMB members from the Penablanca Protected Landscape and Seascape, Quirino Protected Landscape and Casecanan Protected Landscape. They were brought to Mt. Pulag National Park and Biak Na Bato National Park (PAs with similar habitat types and features to PPLS and QPL and have established PAMB and eco-tourism facilities) to observe their infrastructure and management operations.
- In order to harmonize the management plans of other forest management systems inside protected areas, CIP and DENR together with local partner NGOs (CAVAPPED and PROCESS Luzon) led a review of community-based forest management frameworks of CBFM projects. We also addressed DENR and LGU capacity issues for the implementation of CBFM activities. CIP and CAVAPPED, a local NGO partner, provided an orientation and training on biodiversity conservation and CBFM operations. .
- CIP and PROCESS also facilitated the formation of a Municipal CBFM review Committee for a CBFM project in Baggao, Cagayan. Members now include CIP, DENR, the Baggao LGU, and the People's Organization. The committee assists in the development of CBFM Community plans and an Ancestral Domain Sustainability Plan (ADSP) of the Ancestral Domain Claim (CADC) for the Indigenous People.

Objective 3: Build regional understanding for long-term social support and participation

The key activities for accomplishing this objective were:

- Support agro-forestry and reforestation projects of People's Organizations within protected areas
- Conduct an awareness campaign at the regional, local and community level to build understanding and support protected areas

Activity 3.1 Promote biodiversity compatible economic activities within the corridor

- To promote biodiversity compatible activities, CIP provided support to Peoples Organizations establishing pilot reforestation and agro-forestry projects in Penablanca, Quirino, Nueva Viscaya and Aurora. These projects provided upland communities the chance to participate in development and conservation activities while developing new sources of income based on biodiversity friendly employment. In the Northern Sierra Madre Natural Park (NSMNP), the beneficiaries of the reforestation project planted a total of 34,000 seedlings of fruit trees and indigenous species of trees in a watershed area and in the buffer zone of the 16 hectares biodiversity monitoring plot in Palanan, Isabela.

Activity 3.2 Implement an awareness campaign to build understanding of and support for the corridor

- As part of the awareness campaign, CIP conducted a training needs and information, education and communication (IEC) assessment. This information will feed into a corridor IEC and training strategy. The assessments reinforced the findings of the 4P workshop conducted with stakeholders the previous year. At present, several IEC related activities have been conducted. They include: trainers training for local IEC partners, organizing youth groups to act as conservation advocates, producing posters, and publication of a quarterly SMBC newsletter.
- CIP and CAVAPPED also conducted a series of seminars and exhibits on biodiversity conservation to the different line agencies in Cagayan. Biodiversity seminars were also conducted in the various state universities within Sierra Madre to encourage universities to conduct research addressing different environmental concerns. To reach a wider audience, CIP and DENR, in partnership with DWPE “Radyo ng Bayan”, launched a radio program entitled “Sa Kandungan ng Kalikasan”, which tackles different environmental issues, projects, program and activities implemented within the Sierra Madre mountain range.

V. Enforcement Economics

A) Summary of Progress for Project

Overall Progress

Over the second year of this project, CI has successfully worked in each site to complete the enforcement economics analyses. CI has been able to identify key weaknesses in each step of the enforcement chain, and estimate the overall deterrent value of the enforcement regime in each site. Furthermore, CI has worked successfully with key enforcement agency staff and decision-makers to verify analysis results. This collaboration has been continued in the development of action plans for improving enforcement performance in each of the case study sites. This close engagement with government and other partners ensures their ownership of the project’s findings and proposed interventions. This will guarantee not only near-term improvements in enforcement performance, but also the sustainability of enforcement-strengthening efforts beyond the life of this project.

Selva Maya, Mexico

CI-Selva Maya completed the enforcement economics research, identifying weaknesses in the enforcement regime through analysis of the quantitative and qualitative data collected. The project team was successful in accessing and acquiring relevant data considered restricted by the Mexican government in order to complete the enforcement economics analysis. This information was closely guarded by PROFEPA due to fear that failings in enforcement performance would be ascribed to irresponsibility or corruption within this government agency. Through this analysis, the overall deterrent value of the current enforcement regime was estimated, and the weakest links in the enforcement chain were identified. The analysis results created a basis for the design of interventions aimed at improving the enforcement system.

CI’s Selva Maya Program followed up on earlier partnership-building efforts in which a base of cooperation and support for the project objectives and goals was built. The Participatory Design Workshop held in April 2003 achieved consensus around study findings, and yielded strategic recommendations for strengthening weaknesses in the enforcement system. An action plan for implementing these recommendations was developed, and government enforcement agencies and other partners voiced their commitment to this action plan.

Papua, Indonesia

Previously CI profiled the enforcement system and collected quantitative and qualitative data on enforcement in Papua. The project was shared and discussed broadly. It led to a strong enforcement network. All the key enforcement agencies became involved, cooperated in the work, and committed to implementing the findings. The analysis of the data was completed and the PDW identified weaknesses in terms of infrastructure and facilities, and made a set of recommendations and calls for action to improve the weaknesses. The need to establish an integrated team to combat illegal logging in Papua was one key finding. CI has played a key role in maintaining the enforcement network, working with it to design a training course, and organizing and implementing them. CI has also developed a computer program for the enforcement agencies to track cases.

Palawan, Philippines

In this year, quantitative and qualitative enforcement data was collected and analyzed. Analysis of the data yielded key insights into where weaknesses exist in each step of the enforcement chain, and why they exist. Completion of the quantitative data analysis also yielded an estimate of the deterrent value of the enforcement regime.

Sharing the project concept and analysis results with key enforcement agencies (Coast Guard, Maritime Police, Tagbanua Council, PCSD and Department of Justice) over the last year augmented their understanding of how important each agency is to the success of the overall enforcement system. CI-Philippines and ELAC also successfully conveyed the importance of looking beyond factors like insufficient funds and personnel in assessing the root causes of weaknesses in the system. Conducting a Participatory Design Workshop (PDW) sustained earlier efforts towards building partnerships with key local-level enforcement agencies. This workshop aimed to collaboratively develop recommendations for improving the enforcement system. The PDW was attended by key local officials heads of the fisheries and environment committees of the local legislative councils of Coron and Busuanga, the Philippine Coast Guard (PCG)-Palawan, Kilusan Sagip Kalikasan (KSK)-Calamianes and Tagbanua Foundation, assistant head of the Maritime Police and Philippine National Police, head of the legal team of the Palawan Council for Sustainable Development Staff, and staff of the Bureau of Fisheries and Aquatic Resources (BFAR) – Coron office.

The PDW attendees reached consensus on the importance of establishing a local framework for administrative adjudication of illegal fishing cases. This local framework would primarily take the form of a uniform fisheries ordinance, which would be implemented across the municipalities of Coron, Busuanga, Culion and Linapacan. Passing a common ordinance would demonstrate a coordinated effort to address fishery crimes in the Calamianes area. The workshop group agreed that a summit should be held among key local government officials from the four municipalities of the Calamianes. The goal of the summit would be to lay the groundwork for the formulation of such local legislation. These partnerships and the commitment of enforcers to finding cost-effective ways of improving the enforcement system will be invaluable in sustaining efforts to curb illegal fishing activities beyond the life of the project.

Global Progress

At the global level, work over the last year focused on expanding efforts to disseminate the enforcement economics rationale and methodology, along with the details of our enforcement work under this project. This information was shared with other US NGOs, our case study sites, US government agencies, international support agencies in the US and abroad, and to other CI country programs. These efforts have been successful in highlighting the importance of enforcement to biodiversity conservation to global

partners. They have furthermore offered CI the opportunity to provide input on enforcement strengthening to current global initiatives aimed at reducing illegal pressures on resource bases. As part of our global dissemination, plans to hold a mid- FY04 conference on strengthening enforcement of environmental rules and regulations were further refined. Building up to the conference, we will hold a series of technical workshops on enforcement best practices. The workshops' recommendations and action plan will be presented to high-level decision makers at the enforcement conference. Our global work has highlighted the importance of effective enforcement in biodiversity conservation, and has laid the groundwork for further dissemination of this project's findings and lessons learned at the global scale.

B) Activities

Objective 1: Carry out enforcement economic analyses (in three case study areas) and work with local stakeholders and decision-makers to design, leverage financing for, and implement necessary improvement in the enforcement regimes.

In all three case study sites), CI has completed quantitative and qualitative enforcement data collection; conducted the enforcement economics analysis; and engaged key decision-makers, local partners and stakeholders in developing recommendations and action plans for improving enforcement performance. The objective was to identify key weaknesses in the enforcement regimes in each site so that targeted cost-effective investments to improve enforcement performance can be made. A further objective was to incorporate government enforcement agencies and other partners in both the data analysis and in the design of enforcement strengthening interventions. CI has successfully enhanced the ability of government enforcement agencies to understand the root causes of poor enforcement. We have also garnered their commitment to support and participate in a sustained process of addressing these root causes in the interest of biodiversity conservation.

SELVA MAYA, MEXICO

Activity A.1.1: Profile enforcement system, illegal activities and threats to biodiversity, and secure support for the project from key stakeholders

Enhancing the enforcement system profile, a profile of the illegal activity was also completed. CI's Selva Maya Program has focused efforts on securing support from key project stakeholders. The Selva Maya Program has distributed and discussed the project with key decision-makers and other potential partners at the federal and state levels. This approach has created an opportunity for these partners to provide valuable inputs into study design, facilitating data collection, and securing partners' support for the Initiative. Without this support, it will not be possible to implement improvements in the enforcement regime.

Activity A.1.2: Identify weaknesses in the enforcement system and develop least-cost investment strategy for addressing them

During this time period, this activity was completed. Through the analysis of qualitative and quantitative enforcement data obtained from the Delegation of PROFEPA in Chiapas, CI was successful in identifying key enforcement weaknesses, working closely with government enforcement agencies and other partners. Project findings were shared with and verified by partners in the participatory design workshop, and consensus on the development of proposals for strategic interventions to improve the enforcement regime in southeastern Mexico was also achieved. The results of this analysis, as well as the proposed strategic plan developed with

partners, can be found in the final enforcement economics report from Selva Maya, which is currently in the final stages of editing.

Activity A.1.3: Identify cost-effective opportunities to reduce the incentives for illegal activities

This activity was partly completed and has been cancelled. The data collection process did begin this year. However, the activity is linked to the site's CEPF program, which has experienced delays. As a result, we foresee completing this important activity in 2005 with non-USAID funds.

Activity A.1.4: Influence key decision makers to implement least-cost investment strategies to improve quality of enforcement.

CI has consolidated broad-based support for cost-effective enforcement strengthening strategies through the April 2003 participatory design workshop. CI and partners from NGOs and government have formed an advisory committee dedicated to continuing efforts to mitigate the illegal hunting and wildlife trade in Mexico. The formation of this group has enabled CI to find new channels for the dissemination of project results and recommendations. Furthermore, the alliance that the advisory group represents guarantees broader participation in monitoring implementation of the objectives and goals set out in the strategic action plan. This support will continue to prove essential in ensuring that government enables, supports, and promptly enacts the Advisory Committee's recommendations.

CI and partners continue to work on developing a comprehensive training curriculum for the various enforcement actors in need of capacity building. It has taken longer than expected to find the most appropriate third-party training institute that can serve as a partner in the process of designing and executing a training program. Despite the delay, we foresee completing this activity in FY04.

PAPUA, INDONESIA

Activity B.1.1: Profile enforcement system, illegal activities and threats to biodiversity, and secure support for the project from key stakeholders

The profiles of the enforcement system and illegal activities are complete. The steps in the enforcement system and the roles of the agencies responsible for completing each step have been articulated. Support was secured from the key stakeholders in the armed forces, the police, and the Provincial Department of Forestry. An initial profile of the traditional enforcement system showed that no quantitative data exists on the number of sanctions that have been implemented under this system. A simple legislative review has been completed, and the decision to conduct a more in-depth legal analysis under activity B.1.2 has been made.

Activity B.1.2: Identify weaknesses in the enforcement system and develop least-cost investment strategy for addressing them

Previously CI had completed a profile of the enforcement system and collected data. These quantitative and qualitative data have been analyzed to determine where key weaknesses in enforcement performance lie, and are being used as the basis for developing a least-cost investment strategy for addressing systemic failures. CI has developed a computer database for tracking cases, based on the information currently recorded on paper, and is training enforcement agency staff in how to use and maintain the database. This will help improve the quality of enforcement data (due to mishandling of records there were gaps in the data obtained) and hence enforcement monitoring in Papua in future. The database was designed with suggestions and feedback from the police, prosecutor service and judges. In-house training in BKSDA I Papua (Jayapura) has also been done.

Activity B.1.3: Identify cost-effective opportunities to reduce the incentives for illegal activities

Although the work under this project in this activity is complete, CI will continue to carry out socioeconomic case studies in Mamberamo and the Raja Ampat Islands in Sorong Province using match funding. The completed assessments have indicated that improved government services and increased alternative income earning opportunities could reduce the illegal wildlife trade. The socioeconomic surveys and assessments of alternative income generation opportunities are continuing.

Activity B.1.4: Influence key decision makers to implement least-cost investment strategies to improve quality of enforcement.

High-level enforcement agency leaders are actively engaged in the enforcement network, and have been instrumental in helping with the Governor's Decree to create inter-agency enforcement teams to combat illegal logging.

A significant training program was carried out in September 2003, attended by all enforcement agencies from five regencies. The training was also used as an opportunity to broaden the enforcement network. The trainees from Merauke – including the police, forest rangers and judges - plan on sharing the contents of the training with their colleague and will include it in their law awareness program.

PALAWAN, PHILIPPINES

Activity C.1.1: Profile enforcement system, illegal activities and threats to biodiversity, and secure support for the project from key stakeholders

Over the last year, this activity has been completed. Partner institute ELAC conducted an assessment of the various laws governing fishery management and enforcement. This legislative review, combined with the profile of how the enforcement system in Palawan works, enabled the identification of the key elements of the enforcement chain, and allowed us to determine the agencies in which relevant quantitative and qualitative data are housed. Forging partnerships with the key agencies involved in enforcement of fishing laws in Palawan was critical to the successful completion of the enforcement profile. It will also contribute to future efforts to successfully implement enforcement strengthening strategies. Examining the magnitude and incentive structure of the live reef fish trade in the Calamianes has helped us understand the financial incentives driving the rampant use of cyanide and dynamite for fishing. The information gathered through these profiles is guiding the process of quantitative and qualitative data collection. It provides the fundamental basis for understanding how the current disincentives presented are or are not effective in outweighing the incentives for illegal fishing activities.

Activity C.1.2: Identify weaknesses in the enforcement system and develop least-cost investment strategy for addressing them

This activity has been completed. Quantitative and qualitative data collection and analysis of the key elements of the enforcement chain has been completed. Additional quantitative data not only showed weaknesses in the enforcement system but also refined and substantiated our understanding of the key weaknesses and where in the chain they occur. Quantitative data further enabled us to calculate the enforcement disincentive presented by the current regime. This disincentive was then compared to the incentives for illegal activities to determine the existence or absence of a net incentive for illegal fishing. Qualitative data collected provided insights into

the reasons for the identified weaknesses and provided a platform for the development of a cost-effective action plan for strengthening enforcement performance.

Based on the quantitative and qualitative data, an analysis of the weaknesses of each element in the enforcement chain was completed and shared with enforcement agency and other decision-makers and partners in a participatory design workshop. During this workshop, CI, ELAC and partners from enforcement agencies, local government, and local communities worked together to develop a set of recommendations designed to mitigate the identified weaknesses.

Activity C.1.3: Identify cost-effective opportunities to reduce the incentives for illegal activities

Although work on this component will continue under match funding as part of a broader project aimed at reducing incentives for illegal activities, the portion of this work related to the enforcement project has been completed. Following the completion of the profile of illegal activities, an assessment of community livelihood strategies was initiated. A sample survey was conducted of several communities in the Calamianes to provide the project data on the various livelihood strategies. Analysis of the data has been completed and report preparation on going. This work will allow a comparative assessment of the financial benefits of different livelihood options, which will be critical to the development of appropriate incentives to counter illegal activity. The information from this component will assist local decision makers and planners in identifying cost-effective community livelihood strategies to complement a more effective administrative enforcement system and create better incentives toward a shift away from illegal fishing.

Activity C.1.4: Influence key decision makers to implement least-cost investment strategies to improve quality of enforcement.

Training on law enforcement and curriculum design work are still under development and will be carried into FY04. The process took longer than originally expected. However, over the last year, the essential groundwork for such activities has been established; and key decision-makers have been actively engaged, guaranteeing their support for and participation in implementation of

With the completion of qualitative and quantitative analysis of the enforcement system, ELAC and CI have worked with local agencies involved in enforcement to effectively communicate the results and develop recommendations. This collaborative effort facilitated the holding of Participatory Development Workshop participated in by key enforcement players from the government, non-government and indigenous communities. It, in turn, led to the design of steps toward the improvement in the enforcement system. One significant recommendation was to pursue the development of a Calamianes-wide fisheries code to harmonize various municipal ordinances and jurisdictions. Training of government and community enforcers on fishery laws, policies and procedures on prosecution of cases was identified as an important and necessary component to the successful implementation of cost-effective administrative measures for strengthening enforcement performance.

Outcome 2: Implement regional and global communications activities for the project to raise awareness of the enforcement economics approach, its impact in addressing environmental crimes and synthesize recommendations and lessons learned.

As we developed our communication strategy, our efforts have been disseminated as opportunities arise. The global audience for these communications is comprised of other NGOs, international support agencies, and other CI country programs. We have also further developed our plans to organize a conference on enforcement strengthening. The conference will be postponed to Spring 2004 in order to accommodate a series of technical workshops on enforcement best practices to be held in the four months

preceding the conference. CI will build technical partnerships to ensure high-quality output from the workshop series that can be translated into compelling messages to be delivered at the conference. Through these efforts, we have broadened the scope of our relationships with US government, case-study country government, and global agencies to whom this project's results and lessons learned can be disseminated. This process of sharing our methodology and lessons learned has been successful in highlighting the importance of effective enforcement to biodiversity conservation efforts globally.

Activity 2.1: Develop regional and global communications strategy for the project

The regional and global communications strategy, broadly defined, was developed during this year. We determined that the communications strategy for the project should focus primarily on disseminating information on the project after: site-level analyses have been completed; recommendations and action plans for enforcement strengthening have been developed; and site-level results have been synthesized into a global lessons-learned document. As the analyses are completed, strategies for launching site-level reports regionally and the synthesis piece globally will be further refined in collaboration with local and global partners where appropriate. In the interim, we have taken advantage of ad-hoc opportunities for dissemination in the sites or globally – primarily to local, regional and international decision-makers – as they have arisen.

Activity 2.2: Place commentaries and reports on the project in regional and global media

In FY03, we determined that it would be best to hold reports to the regional and global media until project site-level results are written into formal reports and synthesized into a global conclusions and lessons learned document; and delayed this activity as a result. As described, the analyses in each case study site have been completed, and have been vetted with key stakeholders and decision-makers. We anticipate that they will support efforts to engage regional media in our dissemination efforts as soon as formal site-level reports are complete. This support and participation from stakeholder and decision-makers will lend greater significance to, and increase the impact of, results reported both regionally and globally. As the site-level reports are currently in their final stages of editing, we anticipate that a synthesis piece on global lessons learned will be completed in the first semester of FY04. We will engage global media in our dissemination efforts at that time.

Activity 2.3: Make presentations on the project in relevant regional and local conferences, workshops and other forums

CI has continued to present on the enforcement economics study and its results during the second year of the project. No conferences appropriate for the dissemination of our work were held in this time period. However, we have followed up on the contacts made during the Forest Law Enforcement and Governance (FLEG) East Asia Regional Ministerial Conference attended in the project's first semester, providing additional information on the enforcement economics work and findings. Project methodology and preliminary findings have been presented to a wide range of US government agencies over the last year – including USAID Forest Team, USAID Democracy and Governance Team, President's Council on Environmental Quality, USDA Forest Service. Efforts to incorporate enforcement issues into the White House Illegal Logging Initiative continued, and CI has played an important role in contributing to the strategic vision of that initiative. Furthermore, CI has continued engagement with multilateral institutions including the World Bank and EU, around the enforcement issue.

Finally, CI has furthered the planning of a conference on enforcement to be held in Washington DC. A strategic decision to postpone the conference until 2004, so that a series of technical workshops on enforcement best practices can be held in advance of the conference, was made. Working with technical experts from partners in the NGO, government, donor agency, and academic sectors should contribute significantly to the impact of the conference. Achieving

broad technical consensus around important enforcement issues prior to the conference will enable CI and partners to present key decision-makers from these sectors (the target audience of the conference) with more than just a description of enforcement issues and their potential solutions. It will result in the development of a targeted and agreed-to strategy for addressing weak enforcement as a global issue. In this way, the conference will represent an opportunity to go beyond raising awareness to actually securing decision-maker commitments in support of a specific action plan.