

**1. Report for the European Commission on the project entitled
“The Development of Cockscomb Basin Wildlife Sanctuary and
Crooked Tree Wildlife Sanctuary as centers for Co-management of
Protected Areas”**

1.0 Title Page:

Project Title: “The Development of Cockscomb Basin Wildlife Sanctuary and Crooked Tree Wildlife Sanctuary as centers for Co-management of Protected Areas”

Project number: B7-6201/99-10/ENV/DEV

Region/Country: ACP Region/Belize

Type of Report: Third Year Intermediate Technical Report, October 2002 – September 2003

Name of Beneficiary: CBWS and CTWS buffer communities

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Date: September 2003

2.0 Table of Abbreviations

| | |
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| AQUIF | Aquaculture and Inland Fishery |
| BAS | Belize Audubon Society |
| CARD | Community Initiated Agriculture and Rural Development |
| CBWS | Cockscomb Basin Wildlife Sanctuary |
| CLO | Community Liaison Officer |
| CTWS | Crooked Tree Wildlife Sanctuary |
| DFC | Development Finance Corporation |
| EU | European Union |
| GOB | Government of Belize |
| IICA | Inter-American Institute for Cooperation on Agriculture |
| LAC | Local Advisory Committee |
| MoA | Ministry of Agriculture |
| NAS | National Audubon Society |
| OWCNERR | Old Woman Creek National Estuarine Research Reserve |
| PACT | Protected Areas Conservation Trust |
| RAC | Regional Advisory Committee |
| SFBB | Small Farmer's Business Bank |
| TAC | Technical Advisory Committee |
| TOR | Terms of Reference |
| UB | University of Belize |
| UNDP | United Nations Development Programme |
| USA | United States of America |

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4.0 Project Summary:

BELIZE-EUROPEAN UNION COOPERATION PROJECT SHEET

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| BELIZE – EU COOPERATION PROJECT DATA SHEET | UPDATED | September 2003 |
| The Development of Cockscomb Basin Wildlife Sanctuary and Crooked Tree wildlife Sanctuary as centers for Co-Management of Protected Areas | STATUS | In operation |

A. Project Information

| | | |
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| 1. | Project Number | B7-6200/99-10/ENV-DEV |
| 2. | Project Title | The Development of Cockscomb Basin Wildlife Sanctuary and Crooked Tree Wildlife Sanctuary as centers for Co-management of protected areas. |
| 3. | Concentration and/or Thematic Area | Watershed and Wetlands conservation through sustainable management (Environment in Developing Countries Budget Line) |
| 4. | Total Project Budget in EURO | ECU 1,794,789.00 |
| 5. | EC contribution and in % of total project cost Source of EC funding | 73% of total project cost ECU \$1,302,690.00 B7-6200 (Environment in Developing Countries Budget Line) |
| 6. | Other co-financing institutions | Belize Audubon Society (BAS) \$492,099.00 (27%) |
| 7. | Financing Agreement number: Date of signature: Period of validity: Date of expiration: | Ref. B7-6200/99-10 31/12/99 April 2000 – September 2004 September 30, 2004 |
| 8. | Target population/beneficiaries | CBWS and CTWS buffer communities |
| 9. | Starting event Effective starting date: | Recruitment of Project staff April 2000 |
| 10. | Estimated project duration Works: TA: Total duration: | Four years six months (54 months) |
| 11. | Contracting authority: Supervisor: | European Commission, Unit AIDCOF/4 Mr. Patrice Moussy |
| 12. | Executing Agency Contractor or Agency in charge of daily operation and management | Belize Audubon Society |
| 13. | Technical Assistance provided by: | |
| 14. | Overall objectives | To involve relevant stakeholders in ecosystem's management to promote biodiversity and ecological integrity through sustainable development activities. |
| 15. | Project purpose | Establish Co-management and Capacity systems with communities using socio-economic incentives with a view to contribute to biological diversity and ecological integrity. |
| 16. | Expected results | 1.A relevant and effective co-management structure for CBWS and CTWS is established. 2.Demonstration projects encourage community members in establishment of ecologically and economically viable activities (in-situ, ex-situ). |

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| | | <p>3.Community members are continuously trained as resources managers and trainers in order to increase the human resource capacity to implement the National Biodiversity Strategy.</p> <p>4.BAS' capacity to provide technical assistance to communities, effectively manage other protected areas and contribute to the implementation of the National Biodiversity Strategy is increased.</p> <p>5.BAS and other national educational institutions' strengthen their capacity to provide natural resource management training to communities.</p> <p>6.Stakeholders increase awareness of ecosystems value and adopt values and attitudes that promote sustainable development.</p> |
| 17. | Main activities | <p>1.Creation and implementation of comprehensive long-term co-management plans for CBWS and CTWS.</p> <p>2.Establishment of ecologically viable economic demonstration projects (in-situ, ex-situ)</p> <p>3.Establishment of natural resource management training facilities at both sites.</p> <p>4.Collaboration with national educational institutions to establish training programmes.</p> <p>5.Development and implementation of pilot monitoring and enforcement schemes.</p> <p>6.Development and implementation of participatory public awareness and education for sustainability programme.</p> |
| 18. | <p>Monitoring and Execution Arrangements:</p> <p>Reporting Requirements:</p> <p>Audit:</p> <p>Reviews: mid-term and final review, mid-term and ex-post evaluation Evaluation:</p> | <p>Objectively verifiable indicators (OVI) and sources of verification</p> <p>Every 6 months (1 – page project update sheet)</p> <p>Every 12 months (intermediate reports)</p> <p>End of project (a comprehensive report)</p> <p>Yearly audit to be submitted in April</p> <p>Open for independent mid-term and final review by the EC</p> |

B. Project implementation

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|----|---|--|
| 1. | <p>Global Financial situation in Euro</p> <p>Commitment: amount and date</p> <p>Disbursement: amount and date</p> | <p>December 1999 - \$1,302,690.00 EC</p> <p>December 1999 - \$ 317,080.00 BAS</p> <p>March 2003 (budget modified rider) - \$492,099.00 BAS</p> <p>March 2000 - \$347,384.00</p> <p>November 2002 - \$318,435.60</p> |
| 2. | <p>Specific financial situation</p> <p>Commitments:</p> <p>Disbursements:</p> <p>Balance of advance or imprest account:</p> | <p>\$1,302,690.00</p> <p>\$347,384.00</p> <p>\$318,435.60</p> <p>\$636,871.00</p> |
| 3. | <p>Progress of implementation</p> <p>Summarized status of activities:</p> | <p>Signed: December 31st, 1999</p> <p>Duration: Four years six months</p> <p>Activity 1: The LAC's, RAC's and TAC are functional. The RAC's of both pilot sites are registered legally under the Business Act of Belize. The Ministry of Natural Resources has reviewed and accepted a new framework developed by consultant contracted by BAS and are near</p> |

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| | | <p>completion of management plans for CTWS & CBWS.</p> <p>Activity 2:The nut processing plant has been completed, the beekeepers – honey cooperative has been registered and are producing honey, the craft shop is completed and fully functional, the feasibility study for the fish farming project has been completed, and a cacao project is in the feasibility stage.</p> <p>Activity 3:The training facility at CBWS is still operational and the training/interpretive facility at CTWS is almost complete. The resource management training has been developed and will be implemented next year.</p> <p>Activity 4: Enforcement trainings are being developed in conjunction with the relevant authorities and will be implemented early next year. The water-quality monitoring program has also been developed. Implementation of the trainings will also occur next year.</p> <p>Activity 5: BAS wardens have received continuous trainings in monitoring, data collection and protected areas management. The program staff has been networking very closely with several government departments, local NGO's, National Projects (CARD) and international organizations in the sharing of experiences and expertise.</p> <p>Activity 6: This program is ongoing. The field educators have been making continuous visits to the buffer communities making presentations on protected areas in Belize.</p> |
| 4. | Intermediary/expected results Describe stage of achievement: | <p>Result 1: 90% Result 2: 75% Result 3: 85% Result 4: 65% Result 5: 85% Result 6: 90%</p> |
| 5. | Status of M&E Arrangements Reports: Audit: Reviews: Evaluation: | <p>Submitted 5 project sheets, 2 Intermediate Technical Report 6th Project Sheet is being submitted with this 3rd Intermediate Report Submitted 2 audit 3rd year audit is being submitted with the 3rd year Intermediate report</p> |
| 6. | Issues and Problems encountered | <ol style="list-style-type: none"> 1. Service providers limited capacity to follow-up with cooperatives. 2. Community members still lack management capacity. 3. Limited collaboration between NGO's and service providers. |
| 7. | Proposed/Agreed Action to be undertaken | <ol style="list-style-type: none"> 1. The project staff has submitted a proposal to the CARD project to fund trainings and a technical support structure for the honey cooperative and the service providers (MoA extension officers). The BAS is proposing that this be a joint effort between NGO's and a couple ministries within the Government of Belize. By pooling resources, the organizations will be able to be more effective in the communities. 2. The BAS will seek funding to continue its work with the buffer communities of CBWS and CTWS for the next three to five years in order to continue providing management and technical support to the demonstration projects and the co-management structure. |

5.0 Summary (of current report):

During the third year of implementation, the project staff worked diligently to involve the relevant stakeholders in protected areas management by promoting biodiversity and ecological integrity through sustainable development activities. The major focus was to get people to actively participate in the identification of issues and activities that influence and affect natural resource management while providing economic alternatives.

As in previous years, the staff continued to foster the close working relationship it had established in the buffer communities. With the continuity in project staff a great deal was achieved. The Local Advisory Committees (LAC), which were already established, began meeting regularly with the Community Liaison Officer (CLO) and the Regional Advisory Committees (RAC) for Cockscomb Basin Wildlife Sanctuary (CBWS) and Crooked Tree Wildlife Sanctuary (CTWS) were both established and registered as legal bodies. During the formation of the RACs the Technical Advisory Committee (TAC) worked closely with the project staff to clarify the definition of Co-management as it relates to this particular project. This was finalized and approved by the LACs of both pilot sites. The model's effectiveness will be closely monitored during the final year of implementation, as the management plans which was developed with community input will become the guiding tool for the management of both pilot sites.

Within the reporting period, the demonstration projects established last year remained functional. The Cashew Cooperative received its equipment and conducted several trainings allowing them to commence production next year. The Honey Cooperative became a registered group with the Cooperatives Department and accessed several trainings through BAS in collaboration with the Ministry of Agriculture and the CARD Project. The Maya Center Women's Group Craft Shop is successfully operating and is seeking funding to expand the Craft Shop to incorporate a regional training facility in order to keep the skill of craft making alive in the South of Belize. In addition to the already existing demonstration projects, a feasibility study for a Fish Farming project was completed by the Fisheries Department. The project is expected to commence operation early next year. Since the communities in the South were no longer interested in the medicinal plant project and showed serious interest in cacao production a market study was completed. This initiative will also commence early next year.

In addition to the various trainings for demonstration projects the communities have received introductory sessions in natural resource management. A water quality monitoring and enforcement scheme has been developed in conjunction with the relevant authorities and will be implemented and tested during the final year of implementation.

The education program focused on the development of architectural renderings for the CBWS visitor center, the development of a jaguar curriculum for the buffer communities and continuous environmental education outreach activities.

6.0 General Context

In the year 2003, the most significant advance in industry was associated with tourism more specifically cruise tourism. This year saw an almost 100% rise in cruise tourism visitors to the Belizean Shores. This increase is expected for the upcoming year, which poses both an opportunity and a challenge to the management of BAS parks. It is hoped that with the boom in the tourism sector, BAS managed parks will in turn provide economic opportunities to those communities buffering the protected areas.

A change in the mindset of the Minister responsible for Natural Resources and the Environment has presented the organization with a great opportunity to realize its goals of amendments to the existing protected areas legislation and the formulation of the necessary enabling protected areas policies. The ministry is undergoing a restructuring process aimed at increasing the effectiveness and the efficiency of protected areas management. This restructuring is now considered a priority of the ministry after intensive lobbying by the Society and other protected areas management organizations. The Belize Audubon Society, as catalyst to this process, is also playing an active role in this restructuring process and in advocating for legislative amendments and in the development of those policies long since recognized as being necessary for proper protected areas management.

The recently released 2002 *Living Standards Measurement Survey Report* indicated that as much as 33.5 % of the nation's population is experiencing some degree of poverty. The report goes on to elaborate that the poverty situation is more acute in rural settings with the Stann Creek district (where CBWS is located) measuring as much as 34.8% of the population in poverty. This is of great concern to the Society as much of the threats to the BAS managed protected areas are poverty driven.

The lack of meaningful employment within rural setting remains high in Belize. Urban migration continues to be a major factor affecting the functionality of the Society's Local and Regional Advisory Committees within buffer regions as many community members that were previously trained by the Society have left their respective communities to ensure meaningful employment elsewhere. This has meant a drain in Society's resources, as the Society has had to start over in many cases retraining individuals in the various facets of Protected Areas.

Illiteracy rates within buffer communities continue to derail BAS' efforts to pass various conservation principles to those communities that are in a position to directly impact the protected areas. Standard methods of environmental outreach are only partially effective and work best within the primary education system. The overall high literacy rate of the nation of Belize however has provided BAS with very good opportunities to disseminate information on the values of protected areas and the reason/need for protection of areas through our primary and secondary education system.

7.0 Enumeration of the project's objectives

The overall objective of the project is to ensure the biological diversity and ecological integrity of Belize's ecosystems are protected, sustained and restored. Biodiversity and ecological integrity also encompass the social dimension, as human resources are an essential constituent of a healthy environment.

Although the project covers two pilot sites, Cockscomb Basin and Crooked Tree Wildlife Sanctuaries, the purpose is singular: involve relevant stakeholders in ecosystem's management to promote biodiversity and ecological integrity through sustainable development activities. This purpose is synonymous with the sectoral policy of the EC National Indicative Programme. The project directly aims to provide opportunities for communities to participate in the development of the country whilst involving them more actively in resource management.

8.0 Implementation/Activities/Results

8.1 Co-Management Structure:

At the request of the Project Coordinator, the Technical Advisory Committee (TAC) met during the first quarter of this year to review the Co-management structure and to develop a definition for co-management as it relates specifically to this project. The Project Coordinator realized that this was an essential exercise, as it was obvious that the advisory bodies were not sure what their roles were in the management of the two pilot sites. At a one-day session held in Belize City, the TAC reviewed the existing structure and developed a clear definition for co-management. *(See annex A for structure and definition)*

The Project staff then held one-day sessions in both pilot sites to present and discuss the co-management structure and definition with members of the Advisory bodies. Both sessions were very productive. Many questions were asked and many issues clarified. However, the project staff noted a lower level of interest from the communities in the north (CTWS). Although all the communities were represented, the number of individuals from each community was lower than that of the communities in the south (CBWS).

Nevertheless, with the establishment of the Local Advisory Committees (LAC) and the Regional Advisory Committees (RAC) the project staff was able to strengthen their relationship with the buffer communities of both Cockscomb Basin and Crooked Tree Wildlife Sanctuaries. Throughout the year, the CLO and the Project Manager maintained a constant presence in the communities by meeting regularly with the advisory bodies, various interest groups and the broader communities when necessary.

Local Advisory Committees:

Through the CLO's regular visits and meetings several issues were identified and addressed within the buffer communities. In the Southern region, the project staff worked very closely with the San Pablo LAC in the acquisition of community lands. For eight years the community has been squatting on private lands without their knowledge. They attempted to resolve this issue with the Government of Belize (GOB) but had been unsuccessful. Therefore they approached the CLO requesting some kind of assistance from BAS. Realizing that this could become a threat to the status of the protected area (as CBWS borders the Village of San Pablo and is national lands) the project staff agreed to assist. There were many meetings and discussions with the LAC and the community leaders to gather data on what had transpired over the past eight years. That data would assist in identifying who the major stakeholders were and who would be able to assist. The project staff, through its relationships with other NGO's was able to network with relevant agencies and establish a working relationship between the community leaders of San Pablo and the staff of TMCC, SAGE and KCB. As a result, the community was able to access free legal advice from an international lawyer versed in indigenous land rights, acquire coordinates of their communal lands (including an area for expansion) and made a presentation to the Minister of Lands. This issue is expected to be resolved as soon as the area is officially surveyed and registered at the Lands Department. This should occur within the next project period.

Several issues have been addressed in the village of Maya Mopan over the past year. The project staff worked with the LAC members and the members of the Village Council to address illegal logging, land protection and problem jaguars. The members of the LAC reported that they were concerned about a logging operation taking place near the protected area and would assist the organization in ground-truthing to ensure that it was not within the boundaries of CBWS. A couple patrols were carried out and one scouting exercise which revealed that the concessionaire was marking logs outside of his concession and was already on the boundary of Cockscomb. The information was relayed to the Forestry Department and a sting operation was organized. BAS staff, forestry department and the members of the Belize Defense Force conducted the operation and were successful in apprehending two individuals.

As a result of the logging issue, the village leaders realized the negative impacts logging in the watershed area could have on the community's water source. The CLO was informed of the community's concern and was asked to help in mapping an area that would encompass the adjacent forest and the community's water source. With the information gathered on this expedition, the village leaders have secured a meeting with the Minister of Natural Resources to discuss the potential of protecting this area by annexing the additional lands to Cockscomb Basin Wildlife Sanctuary.

The CLO was informed that a problem jaguar had been killing domestic animals in the village and the community was becoming alarmed at the risk of losing human life. The CLO immediately organized for the Wildlife Conservation Society's researcher conducting the jaguar research in CBWS to make a presentation to the broader community about jaguar habits and the jaguar research-taking place in Cockscomb. The community got many questions answered and agreed to have the researcher place camera traps at strategic points within the community to verify if indeed it was a jaguar. The Forestry department was contacted once again to deal with the issue as the agency with the ultimate authority in these matters. Because so many domestic animals were lost, the forestry wildlife officer gave the community permission to kill the jaguar if they felt threatened. The community saw this as their final resolve but eventually had no other alternative but to kill the jaguar. The members of the LAC took the carcass to CBWS for BAS to contact Forestry Department to dispose of and to confirm that it was indeed a problem jaguar. Within the reporting period alone, three communities including Maya Mopan, Maya Center and Crooked Tree contacted BAS for assistance in dealing with problem jaguars. In the other communities, cages were set up to capture the jaguar but to no avail. To date these jaguars have not been found. While BAS knew that problem jaguars had been killed in the communities from time to time, it had never been contacted previously for assistance or for information regarding the procedure (legislation) to deal with problem jaguars. This has been a direct result of the communication structure developed through the project and a major achievement for the organization.

In the north, the project staff has been working with the Biscayne LAC and village leaders in addressing illegal fishing within the Sanctuary. As a result, several meetings were held in the community to identify individuals who would participate in the pilot enforcement scheme planned for the next reporting period.

In Crooked Tree the LAC and village leaders have asked BAS for assistance in dealing with their free roaming cattle. Traditionally this has been accepted within the community; however with the continuous growth of the village several issues have been highlighted. The cattle have become a serious health issue as well as an easy meal for problem jaguars. The project staff realized the severity of the health issue affecting the ecology of the lagoon and the overall health of the community and asked the village leaders to prepare a concept paper on how they proposed to address the issue. With the assistance of a Peace Corp volunteer, the concept was developed into a communal Cattle Rearing Project Proposal. Although the Belize Audubon Society cannot fund the project, it has identified a potential funder who will be meeting with the LAC and village leaders later this year to review the proposal. *(See annex B for copy of draft proposal)*

Regional Advisory Committees:

In March 2003 the Regional Advisory Committees of both project sites were registered as legal entities with the ability to implement development projects in their respective areas (*see annex C for copy of registration*). In the last reporting period, these groups received training in proposal writing and as a result were both able to develop proposals. During this year, a consultant and the CLO worked very closely with the RAC's to redesign their proposals in a specific funder's format and at the same time ensuring that the proposals were a reflection of their ideas and specific needs. The CBWS RAC developed a proposal to address the urgent need for adequate garbage disposal in their respective communities entitled "*Cockscomb Basin Buffer Zone Solid Waste Management Pilot Project*" and the CTWS RAC developed a proposal to conduct a Tourism Development Plan for the region entitled "*A Tourism Planning Project for the Crooked Tree Wildlife Sanctuary buffer zone communities*" (*see annex D for copy of proposals*). The RAC's are currently seeking funding for these proposals and with the assistance of the BAS staff have tabled these to several funders.

Management Plans for CBWS & CTWS:

After building a strong relationship with the communities, the project staff felt that the LAC's, RAC's and other interest groups within the communities were at a level where they would be willing to and could actively participate in the development of the management plans. The TAC agreed and approved the hiring of a consulting firm, Wildtracks to prepare the management plans for the two project sites. Since the Management Planning Framework proposed to the Minister of Natural Resources last year had not been approved, the BAS and the consultants liaised closely with the Forestry Department in the development of the Management Planning Framework for CTWS & CBWS (*see annex E for Management Planning Framework*). While this may not be accepted as the National Planning Framework, the Forestry Department has agreed to take this model into consideration and will allow the BAS to manage the two pilot sites using the framework developed by Wildtracks. To date, the consultants have been working with a core team encompassing BAS staff, RAC members and the Forestry Department in the preparation of the management plans. Both Management Plans will be completed within the first quarter of the next reporting period.

8.2 Economic Demonstration Projects:

Cashew Cooperative:

During the early part of this year, the cashew processing plant was completed and the equipment was ordered from a manufacturer in El Salvador. Unfortunately, the equipment took several months to arrive in Belize affecting the cooperative's production for this year. However, the ninety-member cooperative decided to host an official opening ceremony at the site and invited the Minister of Agriculture, the Minister of Finance, the Area Representative and the Prime Minister to the ceremony. Both Ministers of Finance and Agriculture were guest speakers at the event (*see annex F for photographs of the Cashew Cooperative's processing plant opening ceremony*). The event highlighted the various agencies that made contributions to the cooperative's formation and encouraged members to actively participate in the training opportunities that would be offered when the equipment arrived.

The manufacturer delivered and installed all the equipment in May of this year. The training sessions took place in June with a view to develop a cadre of trainers for the cooperative in equipment handling and overall equipment maintenance. A total of seven members from the general membership and four members of the executive body participated in the trainings. The following is a list of all the equipment that has been acquired. (*See annex G for copy of Belize Customs Declaration form and photographs of the equipment*)

- Autoclave
- Industrial Ovens
- Trolleys
- Metal trays
- Cashew Nut Cracking machines
- Metal containers
- Metal tables
- Metal stools

Since the cooperative was not able to process nuts during this cashew season, the Ministry of Agriculture used the time to conduct the following field trainings with all the members of the cooperative. The trainings were conducted from June to September of this year.

- Seed selection for nursery establishment and processing
- Conservation and Biodiversity
- Nursery Management and plant propagation
- Orchard establishment & management
- Soil and Water management
- Pest disease management

- Cooperative Management & Administration (for Cooperative Executive Body)
- Book-keeping (for Cooperative Executive Body)

The Ministry of Agriculture and IICA have scheduled several other field trainings for October to December of this year. In the first quarter of the next reporting period the steering committee will be addressing the issue of cooperative management. While the technical expertise is abundant there is a serious need for stronger business management within the cooperative. The Ministry of Agriculture is currently looking at the possibility of seconding an additional person to work specifically with the cooperative. The steering committee will meet early next year to review the options for the success of the cooperative.

Honey Cooperative:

During the early part of this year, the Project coordinator and the CLO met with the members of the proposed honey cooperative to assess their level of commitment. During that session, it was evident that all the members were committed and eager to move the cooperative forward. It was also evident, however that a couple issues needed immediate attention. First, the members needed more training in cooperatives management and secondly, they needed to formally register the group as a cooperative.

The CLO and the Project coordinator worked extensively with this group but realized that the group needed a certain level of technical expertise that the BAS could not provide. For this reason, the project staff liaised closely with the Ministry of Agriculture, specifically the Cooperatives Department and the Belize Marketing Board. After numerous attempts, the Cooperative Department conducted a couple trainings for the group in Cooperatives regulations and management. In August 2003 the group was officially registered as the Maya Mopan Honey Cooperative.

Although the group was a legal body it still needed technical support in the areas of marketing and bee handling. Thus, the staff contacted the Belize Marketing Board to assist with the adequate trainings in product development and labeling and contacted a well-known Belizean expert in honey production to assist with the bee handling. The consultant had already been working with beekeepers in the southern part of the country through the CARD Project; nevertheless, he agreed to meet with the group to conduct a rapid assessment of their training needs.

The consultant concluded that the Honey Cooperative has been producing enough honey to cover the cost of basic inputs; however, they have the potential for expansion to meet the growing local market demands. His initial assessment highlighted the cooperative's need for long-term technical support and agreed to include the Maya Mopan Honey Cooperative in his scope of work under the

CARD Project. Through continuous collaboration with the CARD project and the Ministry of Agriculture, the two leaders of the Honey cooperative were able to access several trainings. They participated in a bee-keeping training tour in Mexico, a Taiwanese training in quality control honey production and most recently a session on Pest control at the University of Belize Central Farm Campus.

As a result of the cooperative's new leadership and the trainings they have received, the group has become very active and meets regularly. Although this is a major achievement for the cooperative the consultant recommended technical support for one year and "hands-on" training in the following areas.

- Training in three methods of supplemental feeding
- Training in two methods of hive division
- Swarm control and absconding reduction
- Formic acid application
- Honey harvesting
- Apiaries pest control

The project staff is working closely with the consultant to develop a proposal to present to CARD in an effort to fund the technical support that the cooperative needs for the upcoming year.

Since the group was registered and is very active, the project staff and the Maya Mopan Honey Cooperative were invited to sit on the National Beekeeping Council of Belize. The first meeting of the Beekeeping Council was held in September to discuss the revitalization of the council and to draft a terms of reference (*see annex H for minutes of the Beekeeping council meeting*).

Maya Center Crafts:

After the construction of the Maya Center Women's Group Craft Shop, the group indicated that they would invest their time and efforts in the development of a plan to expand their existing structure. The group believes that it can and should contribute more to the community. Presently the group takes a percentage of their overall profits to pay the salary of a primary school teacher and to contribute to their existing water system. With the expansion of the craft shop, the group would establish a southern regional training center in craft making. Realizing that 50% of their current membership is over the age of 50, the group is eager to expand its membership to include the youths within the community and at the same time offering an alternative to women in the surrounding communities.

Supporting the group's initiative, the CLO and a consultant worked with the group to develop a proposal that could be presented to potential funders. The proposal has been forwarded to the Gender Equity Fund for review.

During this reporting period the Project Coordinator was also able to network with consultants from Price-Waterhouse, Cooper, Smith doing volunteer work in Belize. Through this link the consultant compiled and documented the experiences of the Women's Group since its establishment in 1986. She also assessed the overall marketability of the group's crafts and made concrete recommendations relating to product development. The results were presented to the group and a follow-up session to address the recommendations is planned with the group for early next year. (*See annex I for Maya Center Women's Group Documentation*)

Fish Farming Project:

The Project Coordinator met with the LAC and village leaders of Crooked Tree to reevaluate the potential of implementing a fish-farming project in the village of Crooked Tree. The Fish Farming project, which was initially proposed for the community of Lemonal, was put on hold because the community refused to work together and the investment would have been lost. However, the recent invasion of the exotic specie, Tilapia, in the Crooked Tree Wildlife Sanctuary has triggered a major cause for concern. While no research has been carried out to assess the specie's affects on the ecology of the lagoons the BAS is committed to alleviating the potential threat.

For this reason, the BAS has liaised with Village leaders and the Fisheries Department, particularly the Aquaculture and Inland Fishery (AQUIF) Unit, in order to conduct a feasibility study for the proposed project. The Crooked Tree community is eager to implement this project; however, the project coordinator clearly indicated that the results of the feasibility study would determine whether or not the project is implemented in that community.

After several site visits and meetings with the relevant stakeholders, the Fisheries department prepared a Feasibility Study for the proposed Fish Farm. The report covers the technical component of the project from site location to husbandry regime. The results indicate that this project has great potential; therefore, the next phase of the project will include a signed agreement with the community to implement the project and the construction of the ponds, which is scheduled for early next year (the country's dry season). (*See annex J for copy of the Fish Farming feasibility study*)

Medicinal Plants vs. Cacao Project:

The result of the feasibility conducted for the medicinal plants project (for Red Bank) indicated that the community was no longer interested in the production of

medicinal plants. The Project Coordinator did not invest in this project, as with the case of the fish-farming project the resources would have only been wasted.

Instead the Project staff started identifying other alternative demonstration projects that would meet this project's objective. One such project is the Cacao Expansion project. Through our strong relationship with the community of Maya Mopan the Maya Mopan Farmers Cooperative invited the project staff to one of their meetings. At that meeting, the leaders of the Toledo Cacao Growers Association (TCGA) and representatives from Green & Blacks (the buyer of all Belize's cacao beans) were present to discuss the future of cacao in Belize. Cacao is an environmentally friendly agricultural product, as it does not require land clearing. On the contrary, this product requires a great deal of shade, which would mean that the lands bordering CBWS could remain buffer zones for the protected area.

Currently, Green & Blacks purchases all the cacao beans Belize produces, as the beans produced in Belize are certified organic and are of superior quality. Green & Blacks has been purchasing from TCGA for nine years and has recently signed an agreement with TCGA to purchase a maximum of 200 tons of cacao from Belize indefinitely. Should Green & Blacks decide to purchase elsewhere, it must inform TCGA five years prior to the cut off date. Unfortunately, TCGA is not producing the required amount to fill Green & Blacks demands; therefore, it would like to invest in the promotion of rehabilitation and extension of existing cacao farms and the establishment of new farms. Since the community of Maya Mopan currently produces one-third of the country's entire yield, TCGA is proposing to start with the farmers from that community. However, several communities including those that buffer CBWS are target communities, as the land is ideal for organic cacao. The farmers from the surrounding communities all expressed interest in the initiative but are requesting both financial and technical assistance in establishing and expanding their farms.

Once again the project staff clearly indicated to the farmers of Maya Mopan, Red Bank, San Roman and Santa Rosa (all within the project site) that BAS would not be able to support such an initiative until an assessment of the present situation was completed. As a result, a consultant was hired to evaluate the effectiveness of the Maya Mopan Farmers cooperative and to provide technical assistance at the production and management level, as the overall project is certainly feasible.

Through our affiliation with Earth University in Costa Rica, a Belizean student was hired to conduct the consultancy. The Organization felt that with his background in Agriculture and experience working with communities in Costa Rica would provide him with the skills to conduct an effective evaluation of the Maya Mopan Farmers. He resided in the village of Maya Mopan and worked closely with the Farmers Cooperative. His analysis of the Cooperative was initially alarming, as personal conflicts among members within the cooperative were becoming evident. (*See annex K for copy of Consultant's report*)

However, the project-staff met with the Executive Director of TCGA to further discuss the potential project. At that meeting it was obvious that TCGA would be dealing directly with individual farmers and not cooperatives; (it has been operating like that for the past nine years) therefore, the personal conflicts within the cooperatives would not affect the cacao initiative in Maya Mopan and surrounding communities. The Project coordinator has since recommended that the funds budgeted for Medicinal Plants be redirected to the Cacao initiative. The project staff is liaising with TCGA, CARD and the Ministry of Agriculture on this initiative.

8.3 Resource Management Training:

In collaboration with several institutions and agencies, community members from both project sites received training in sustainable agricultural practices. The trainings were continuous and allowed these groups to enhance their crop's yield by utilizing environmentally friendly techniques. The honey cooperative through one of its training sessions was able to access a manual that will be amended to suit that groups specific needs while the cashew cooperative and the cacao farmers have all received training that promote organic production. (*See annex L for copy of Bee-keeping Training Manual*)

The Project coordinator also met with the relevant staff to develop a Natural Resource Management (NRM) Training Programme for key members of the communities within both project sites. The NRM trainings would be delivered in conjunction with the University of Belize NRM curriculum. This training is viewed as an integral component of the co-management project if the communities are to adhere to general sustainable practices. The training program, which is scheduled for early next year will include the following thematic areas.

- Introduction to Flora and Fauna
- Introduction to a Wetland Ecosystem
- Introduction to a Wildlife Sanctuary
- Regulations that govern a Wildlife Sanctuary
- Roles in Natural Resource Management

As in the case of the Community Leadership Training Program, modules will be developed for each component of the NRM Training Program. These manuals will be used during the training session and will become resource materials for the participants upon completion of the trainings.

8.4 Monitoring and Enforcement:

Staff and Community Exchange Program:

The exchange program with the Old Woman Creek Estuarine Research Reserve (OWCNERR) of Huron, Ohio continued this year with four teachers from schools within the buffer communities of OWCNERR the visiting Belize along with the Park Director and Education Director of that Protected Area.

The purpose of the exchange this year was to allow the teachers from the buffer communities around CTWS to sharing their experiences through the co-management project with the teachers from the buffer communities of OWCNERR from Ohio and vice versa. The visiting group visited all the primary schools within the buffer communities and learnt a great deal about Belize Audubon Society, the co-management project and the country in general. In turn, the schools in the buffer communities learnt about the ongoing outreach program established in Ohio and received generous contributions from the visiting teachers representing their various primary schools. Both groups vowed to continue the pen pal program established a year earlier as a result of the “Birds with Two Homes” program between BAS and OWCNERR. (*See annex M for photographs of the OWCNERR Teacher exchange to Belize*)

Water Quality Monitoring:

Initially the Project coordinator agreed with the University of Belize to develop the water-quality monitoring program for both pilot sites. However, with the addition of a research coordinator on staff at BAS, the Project coordinator decided to review the objectives of the monitoring program with the research coordinator before proceeding. The objectives were reviewed and UB was asked to conduct a test run before engaging the community members interested in the monitoring program. This was completed earlier this year and a report was submitted to the Project coordinator for review. After careful review and discussion it was agreed that the water quality monitoring program should be monitoring surface water and wells in order to detect any changes in water quality and stream flows.

The water-quality monitoring program will be testing for the following.

- Alkalinity
- Hardness
- Chlorine
- Compounds (e.g. potassium or nitrogen)
- Micro-biological pathogens (e.g. ecoli or coliform)

This program design (including survey site selection) and equipment acquisition will be completed during the first quarter of the next reporting period and the

program will commence during the second quarter of the reporting period. The UB will be the institution implementing the training program.

Enforcement:

The enforcement-training program or community “watchdog” pilot project commenced during the third quarter of this implementation period. The Project coordinator and the CLO held a couple initial meetings in Biscayne to assess the level of interest in the program. The members of that community were extremely interested in participating. It was evident that they viewed the illegal activity (individuals fishing in the sanctuary from nearby towns) as an invasion of their personal space and a direct threat to their children’s quality of life. Information gathered at these meetings indicate that the communities without even realizing value the natural resources of the sanctuary and are willing to participate in its protection. It was also evident that another for participating in the program had to do with ethnicity. Those who are fishing illegally in the sanctuary are Mestizos whereas the buffer communities of CTWS are predominantly Creole. Traditionally there has always been tension between these two ethnic groups. Although it is not obvious in the towns, the tension still exists in the smaller villages.

After assessing the community’s commitment, the Project coordinator wrote to the Administrator of the Fisheries department requesting assistance in the establishment and training of volunteer “wardens” for CTWS. The group would consist of community members who were interested in assisting BAS with the protection of the area known as Black Creek. It was clearly indicated that these individuals have seen the increase in illegal fishing in the area and were concerned that the organization did not have the needed human resources to enforce the regulations of the sanctuary. As a result the Project staff has been working with the Fisheries department to develop and implement a comprehensive enforcement scheme. To date, the participants have attended one session that dealt with the sharing of information about CTWS. Every participant received an information sheet on CTWS and the surrounding buffer communities, a pamphlet outlining the enforcement section of the Fisheries Act and a map of the CTWS and its buffer communities. *(See annex N for copy of information material)*

The group was informed that they would need to undergo specific training in enforcement schemes and fisheries legislations before they could become volunteer “wardens” of the sanctuary. They understood that the Fisheries Department would need to deputize those who successfully completed the training program and that it would require dedication on their part. They all agreed and signed letters of commitment indicating their intentions. *(See annex O for copy of signed letters of commitment)* The group is excited and eager to participate in any training that would allow them to protect the fisheries stock in their area, as they have seen the gradual decrease in fish population over the years.

A number of the equipment needed for adequate patrols has been purchased and distributed to the protected areas for adequate patrols. The remainder of the equipment needed will be purchased during the next year of implementation. *(See annex P for list of Patrol/Enforcement Equipment)*

8.5 BAS Strengthening:

Cockscomb Basin Visitor/Resource Center:

As a follow-up to last year's visit to several National Audubon centers in Florida, the Education Director coordinated a NAS sponsored fund-raiser to Belize. This was in an effort to promote the development of the new visitor center at CBWS that would meet the needs of a growing tourism industry as well as house interactive and interpretive exhibits. With funding from NAS, the Education Director and the Protected Areas Program Director contracted the services of an eco-friendly architect with extensive experience in environmentally friendly designs. The Architect completed the renderings of the proposed visitor center and presented the concept to the National Audubon Society (NAS) group visiting Belize and the project staff. *(See annex Q for copy of the proposed Cockscomb Visitor Center)*

Staffing:

The project staff continued to face the challenge of project implementation. This project consists of various essential components that ideally would have been implemented over a longer time period with a larger staff (specifically for community participation). Nevertheless, the staff is committed to the project and has been consistent in project execution.

Fortunately, the Project coordinator was able to attend and participate in the first ever Regional Congress on Protected Areas held in Managua, Nicaragua March of this year. The objective of the Congress was to develop regional recommendations addressing various components of protected areas management. The recommendations formulated would later be presented at the World Parks Congress held in Durban, South Africa September of this year. The Congress was well attended with every Central American country having an official delegation. BAS was fortunate to be a part of Belize's official delegation and presented its experience through the Co-management Project at the Community participation forum. *(See annex R for copy of Co-management presentation and report on Congress participation)*

Warden Training:

In the third year of implementation, the wardens received training in wildlife monitoring & recording (data collection) and GIS. The wildlife monitoring training is an ongoing program geared at enhancing the field staff's capacity to collect valuable data. The data collected through this program is entered into the Belize Biodiversity Information System currently housed and maintained by BAS. For this reason it is essential that the staff is adequately trained in standard protocols. The week-long training covered proper recording of wildlife sightings, animal track identification and recording of any changes to the flora. The second component of the training covered the use of maps and Global Positioning Systems (GPS) units. This tool is essential in recording location of wildlife sites, changes in flora or areas of illegal activity. The research coordinator will conduct continuous trainings in these areas over the next year and hopes to expand the scope of the program.

Project Monitoring:

After the second year of implementation the Project Coordinator contracted the services of a small research team from the University of Michigan to conduct an interim assessment of the project status. The research team agreed to conduct the assessment over a period of two months, spending one month in each pilot site at a total cost of \$4,000.00 Belize. Unfortunately the research team was only able to conduct the assessment during the latter part of this year; therefore the results were not available at the time of this report. However, after initial discussions with the team, it was apparent that much more must be done in the areas of education and staff development. The project staff will address those issues once the final report is completed.

In an effort to commence the systematization of the Project, a consultant was hired to assess the documentation procedure and compile chronologically the activities that had occurred since the project commenced. In conducting the assessment, the Consultant found that information gaps existed and proceeded to fill those gaps through informal and formal interviews. The Consultant who was a student at the University of North Carolina at Wilmington completed the first phase of the systematization process and produced the first half of the document. *(See annex S for copy of Systematization Report)* This document will be completed at the close of this project. It will incorporate all the activities, challenges and lessons learnt throughout the project's implementation. It will also be posted on the website for public access and disseminated to organizations involved in protected areas management nationally and regionally.

8.6 Education for Sustainability:

During the reporting period, the education program focused on the development of architectural renderings for the CBWS visitor center, the development of a jaguar curriculum for the buffer communities, continuous environmental education outreach activities and maintaining relationships with international partners.

Education for Sustainability Kits:

The Biodiversity and Ecosystems trunks continue to play a major role in the ongoing educational program within both pilot sites. The park staff that received training in its proper use have been making presentations within the primary schools in the buffer communities. Although the visits are not frequent enough it has proven to be a successful educational tool. The park staff and the schools are requesting an increase in education outreach activities in the next implementation period. With the hiring of a new Education Manager the educational outreach activities will be enhanced within the buffer communities.

Special Educational Events at the Protected Areas:

Earth Day is celebrated annually on the 22nd April. Each year, the Belize Audubon Society observes this day by inviting visitors to its protected areas to participate in a celebration of Nature and Life. This year Earth Day was celebrated under the theme, ‘Water for Life’.

The Belize Audubon Society consolidated this year’s planned celebrations into a three day Earth Day Jamboree that was hosted at the Cockscomb Basin Wildlife Sanctuary. The jamboree was held on the 22nd – 24th April 2003 with the participation of fifty (50) teachers and students who represented the various communities that buffer the protected areas managed by the Society. The students’ participation in the Earth Day activities were dependent however on their participation in a poster competition reflecting the theme “***Water For Life***”. During their stay at Cockscomb, teachers and students engaged in fun filled educational activities and presentations that closely reflected the year’s Earth Day Theme. The various water use/ management stakeholders in Belize such as the Department of the Environment, the Belize Water and Sewage Company and the Belize Electricity Limited among others made education presentations to the group. (*See annex T for photographs of the Earth Day Jamboree*)

As a component of the educational outreach program, the Education Manager made presentations to the LAC and RAC members as well as the broader community on the theme “*What is a Wildlife Sanctuary*”. (*See annex U for photograph of the community presentation*) Through this medium, the

communities are slowly learning why it is important to protect the natural resources. Although this has only been implemented in a few of the communities, the project staff realize its effectiveness and are planning along with the new Education Manager to implement this activity in all the buffer communities. The Educational program has also been redesigned to incorporate non-traditional popular education techniques.

9.0 Results against the project purpose stated in the logical framework:

Logical Framework as stated in the Technical Annex:

| | Intervention Logic | Objectively Verifiable Indicators | Sources of Verification | Assumptions |
|--------------------|--|--|---|---|
| Overall Objectives | Ensure biological diversity and ecological integrity of the CBWS and CTWS wetlands are protected, sustained and restored. | CBWS and CTWS wetlands maintain biological populations and ecological systems Determine degraded areas of Crooked Tree that are restored. | Periodic biological assessments Other periodic ecological assessments | |
| Project Purpose | Involve relevant stakeholders in ecosystems' management to promote biodiversity and ecological integrity through sustainable development activities. | Increase in collaboration between community members and BAS on projects, economic enterprises and training. | Internal evaluation | GOB adopts the National Biodiversity Strategy. |
| Results | <p>1. Establish an efficient participatory management structure for CBWS and CTWS.</p> <p>2. Community members establish ecologically viable economic activities (in-situ)</p> <p>3. Community members establish ecologically viable economic activities (ex-situ)</p> <p>4. Community members are qualified resource managers</p> | <p>1. Number of relevant stakeholders involved in managing various aspects of the protected areas</p> <p>2. A significant number of enterprises successfully established and number of individuals involved.</p> <p>3. Number of businesses successfully established</p> <p>4. Increase in people applying skills to practices</p> | <p>1. Internal evaluation</p> <p>2. Independent evaluation Revenue generation</p> <p>3. Evaluation surveys Revenue generation</p> <p>4. Evaluation survey Certification</p> | <p>Both sites are not dereserved, therefore GOB & BAS maintain working relationship.</p> <p>Viable markets increase for alternative products.</p> <p>Community perceptions of</p> |

| | <p>through training</p> <p>5.Mitigate threats through monitoring and enforcement pilot projects</p> <p>6.BAS' capacity is strengthened</p> <p>7.Stakeholders awareness of ecosystems' value is increased</p> | <p>5. Number of small pilot projects established to mitigate threats. Number of encroachment activities converted to constructive ones.</p> | <p>5. Internal evaluation</p> <p>6. Internal reports</p> <p>7. Internal reports</p> <p>Attitudinal survey</p> | <p>protected areas and resource management linked to BAS.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|-------|------------|---|------------|------------|------------|------------|-----------|-----------|-----------|------------|--|------------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|------------|-----------|--|-----------|-----------|--|-----------|-----------|--|-----------|-------|-------|-------|------------|-----------|------------|---|--|
| Activities/Inputs | <p>1.Long-term co-mgmt plans</p> <p>2.Demonstration projects</p> <p>3.Resource mgmt training</p> <p>4.Monitoring & enforcement</p> <p>5.Warden training</p> <p>6.Education</p> <p>7.Personnel</p> <p>8.Project monitoring</p> <p>9. Administration</p> <p>10. Contingency</p> <p>Total</p> | <p>Cost estimate (ECU)</p> <table border="1"> <thead> <tr> <th>EU</th> <th>BAS</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>128,888.64</td> <td>-</td> <td>128,888.64</td> </tr> <tr> <td>474,234.36</td> <td>101,320.50</td> <td>575,554.86</td> </tr> <tr> <td>54,775.13</td> <td>20,011.18</td> <td>74,786.31</td> </tr> <tr> <td>130,341.83</td> <td></td> <td>130,341.83</td> </tr> <tr> <td>17,564.08</td> <td>85,000.00</td> <td>102,564.08</td> </tr> <tr> <td>20,127.52</td> <td>25,641.02</td> <td>45,768.54</td> </tr> <tr> <td>326,022.14</td> <td>91,261.08</td> <td>417,283.22</td> </tr> <tr> <td>10,256.41</td> <td></td> <td>10,256.41</td> </tr> <tr> <td>71,301.57</td> <td></td> <td>71,301.57</td> </tr> <tr> <td>59,417.97</td> <td></td> <td>59,417.97</td> </tr> <tr> <td>-----</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>1292929.85</td> <td>323233.78</td> <td>1616163.63</td> </tr> </tbody> </table> | EU | BAS | Total | 128,888.64 | - | 128,888.64 | 474,234.36 | 101,320.50 | 575,554.86 | 54,775.13 | 20,011.18 | 74,786.31 | 130,341.83 | | 130,341.83 | 17,564.08 | 85,000.00 | 102,564.08 | 20,127.52 | 25,641.02 | 45,768.54 | 326,022.14 | 91,261.08 | 417,283.22 | 10,256.41 | | 10,256.41 | 71,301.57 | | 71,301.57 | 59,417.97 | | 59,417.97 | ----- | ----- | ----- | 1292929.85 | 323233.78 | 1616163.63 | <p>1. Internal reports</p> <p>2. Quarterly financial reports</p> <p>3.Mid-term and annual project reports</p> | <p>Viable markets exist for alternative products. Wildlife-related demonstration projects are not affected by diseases, other biological factors.</p> <p>Legislative framework conducive to wildlife-related demonstration projects.</p> |
| EU | BAS | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 128,888.64 | - | 128,888.64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 474,234.36 | 101,320.50 | 575,554.86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 130,341.83 | | 130,341.83 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17,564.08 | 85,000.00 | 102,564.08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20,127.52 | 25,641.02 | 45,768.54 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 326,022.14 | 91,261.08 | 417,283.22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10,256.41 | | 10,256.41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 71,301.57 | | 71,301.57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 59,417.97 | | 59,417.97 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ----- | ----- | ----- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1292929.85 | 323233.78 | 1616163.63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | <p>Preconditions</p> <p>All stakeholders interested in pursuing project objective.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Results measured:

| Activities | Implementation | Person/s Responsible | Timeframe | Indicators | Expenditures (EC) |
|------------------------------|---|---|--|---|--------------------------|
| Long-term co-management plan | The co-management model has been developed; the definition has been finalized and is currently being tested. | Project Coordinator | Year 1, 2, & 3 of project implementation | Internal reports & quarterly financial reports | \$133,419.78 |
| Demonstration projects | The three demonstration projects established are still operational and the feasibility for two more projects have been completed. | Project Coordinator | Year 3 of project implementation | Internal reports, quarterly financial reports & mid-term & annual reports | \$103,228.73 |
| Resource management | Staff members continue to be trained in natural resource mgmt. Community Program developed. | Project Coordinator | Year 3 of project implementation | Internal reports, quarterly financial reports | \$23,632.00 |
| Monitoring & enforcement | Both programs are developed and will be implemented within the next reporting period. | Project Coordinator & Protected Areas Manager | Year 3 of project implementation | Internal reports, quarterly financial reports & mid-term & annual reports | \$20,078.41 |
| Warden training | The staff continue to receive training in wildlife monitoring and Global Information Systems (GIS) | Project Coordinator, Protected Areas Manager | Year 1,2 & 3 of project implementation | Internal reports, quarterly financial reports & mid-term & annual reports | \$34,908.75 |
| Education | This program has been established and is being implemented. Architectural renderings for CBWS visitor center have been completed and staff and schoolteachers in the buffer communities are utilizing the educational for sustainability kits developed in the last reporting period. | Education Coordinator | Year 1, 2 & 3 of project implementation | Internal reports, quarterly financial reports & mid-term & annual reports | \$21,249.22 |

10. Conclusion/recommendations/lessons learned:

The project staff worked diligently throughout the year to ensure that most of the activities outlined in the third year work plan were successfully executed. It took great commitment on the part of the staff to maintain the constant presence that was needed in both project sites. As the activities increased so did the need for the staff to sacrifice personal time. Fortunately the European commission approved the request for the twelve-month extension and the six-month period of inactivity allowing the project staff to implement those outstanding activities that would have affected the projects overall success.

Now that the Co-management structure is finalized and a clear definition developed, the communities are in a better position to actively participate in addressing issues that affect CBWS and CTWS. The advisory bodies have been registered and are functioning at various levels; however, there is room for improvement as several of these communities still depend on BAS for bringing them together. The project has established a clearly defined management structure envisioned by the Society; however, the result of this structure is yet to be evaluated. Communities have expressed interest in actively participating and are attempting to do so but their limited capacity and inadequate living and social conditions have contributed to a lag in project advancement. Understandably these social issues take precedence over protected areas matters. Although the Belize Audubon Society is not a rural development organization it has served as a liaison between the communities and several government ministries and other relevant organizations in order to address the social issues within these communities. This has proven successful but BAS's objective is to get community leaders at the level where they can initiate contact with the relevant service providers on their own. This can only be achieved through continuous hands-on training and support.

During the reporting period, it was evident that the communities had limited capacity to execute certain activities but it was also evident that the extension officers within various government departments only had limited capacity to follow-up with the communities once the activities were implemented. Although this is a pilot project, the organization envisions the successful implementation and continuation of these demonstration projects long after the implementation period of this project. Therefore the service providers' limited capacity is of great concern. Through its continuous networking with organizations nationally the BAS has identified specific areas that warrant training for both community members and service providers. In an effort to maximize the limited resources that exist between these organizations and to stop duplication efforts, we have decided to pool our resources to implement an effective training program targeting both the communities and the service providers.

Although the communities' capacity to execute certain activities is limited, the organization has seen a gradual attitudinal change toward the two pilot sites of CBWS and CTWS and toward the organization in general. At the onset of this project, BAS staff often encountered hostility within many of these communities. Today the staff is often invited to participate in community events and the organization has the opportunity to

foster a healthy relationship with these communities. Incidences that once went unreported are now being reported directly to the protected areas staff and obvious enthusiasm exists to serve as the eyes and the ears of the organization.

The fact that some community members still do not understand the concept of conservation and the importance of the protected areas has highlighted the need for a redesigning of the education program to include both educational sectors of the communities – the formal and informal sectors. This will be achieved through the implementation of a new and improved education program that will incorporate non-traditional popular education techniques. It is believed that the education component will strengthen and complement the work of the project staff and fill in some of the existing gaps in the project.

Realizing the need for continued support long after the life of this project, the BAS will seek funding to continue its work in the communities, as it strongly believes that this pilot project will highlight the need for and the benefits of major stakeholders actively participating in natural resource management.

11.0 Annexes