

Biodiversity Corridor Planning and Implementation Program

Cooperative Agreement No. LAG-A-00-99-00046-00

***Brazil Site Annual Progress Report
For FY07: October 1, 2007 - September 30, 2008***

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By Conservation International



I. Summary of Activity Status and Progress

A) Introduction

This report covers activities in the period of October 1, 2006 - September 30, 2007 for the USAID Biodiversity Corridor Planning and Implementation Program (Corridor) Cooperative Agreement. For FY07, obligated funding for the Corridor Cooperative Agreement supported country activities in Brazil and Madagascar. CI is implementing biodiversity corridors in three priority areas: the Cerrado/Pantanal Corridor and the Jalapão/Western Bahia Corridor in Brazil, and the Menabe Biodiversity Corridor in Madagascar. The purpose of these programs is to establish functioning biodiversity corridors over the next five-year life of the Agreement. This report provides an update on the progress of the Brazil program. The Highlights section below summarizes some key activities and outcomes of each country program. The Activities section provides a summary of outcomes and activities for the country programs.

B) Highlights and Successes

BRAZIL

1. “Tenda do Cerrado” (Cerrado Tent) Communication and Environmental Education Program

The involvement of local communities in conservation is key to sustainability. In order to reach them, the right communication and environmental education tools have to provide accurate and easily understood information on the value and importance of local biodiversity, and increase the knowledge of local stakeholders on better natural resource use and management practices. This is one of Oreades’s main strategies for its work in the Emas-Taquari Corridor. Since 2006, Oreades has been implementing new ways of reaching local communities, providing a better medium for collaboration and exchange of ideas and experiences. This year, it launched the “Tenda do Cerrado” program. Local schools received educational games based on local biodiversity conditions. Teachers in all local municipalities were trained as part of the program, which also included interactive events showcasing Cerrado biodiversity, as well as technical presentations aimed at local communities and stakeholders. As a result of the success and intense involvement of local teachers in the “Tenda do Cerrado” project, Oreades was one of the 12 winning institutions in the “Fundo Itaú de Excelência Social (FIES)” competition, a very competitive program created by Banco Itaú, Brazil’s second largest private bank. The winners were selected by a board of FIES consultants, including market specialists, Itaú directors, and leading socio-environmental institutions. With the \$46,000 prize money, Oreades will be able to expand the program to all nine municipalities along the corridor. They will also share lessons learned with other corridor leaders, especially in the Jalapão-Western Bahia Corridor, where Oreades is mentoring Bioeste. In a relatively short period of time, Oreades has evolved into an ever stronger CI partner.

2. Large Landowner Sees Value in Habitat Restoration

With Bunge’s support, Oreades has worked effectively for the past several years to increase awareness among landowners about the importance of habitat restoration on private lands. Impressed by what he had learned, a large landowner from Mineiros took the initiative to begin recovery of 300 hectares of crop land on the river banks of the Araguaia River. This is

the first time a landowner from this region independently took such action. He's following Oréades technical instructions on how to properly carry out the process. When recovered, these 300 hectares will be key to maintaining the connectivity in the area surrounding Emas National Park, once one of the most important biological corridors of the region. This is an important complement to Oreades's work promoting the legalization of legal reserves and areas of permanent protection. Coupled together, it is a considerable contribution to sustaining the corridor management structure.

C) Table of Activity Status

Activity #	Activity Title	Status	Page
BRAZIL			
1.1	Link the existing Cerrado-Pantanal corridor structure with the northeastern region, through a long-term learning and knowledge-transfer program driven by local stakeholders	Delayed	5
1.2	Work with North-South alliance to build park management capacity in the North	On-track	5
1.3	Work with northeastern corridor stakeholders to create new public and private protected areas	On-track	6
2.1	Build support and assist in generating a long-term change of behavior in land use in the corridor using communication and EA	Delayed	7
2.2	Increase partner development capacity	On-track	7
3.1	Ensure that key partners and community planners have the capacity to obtain and use corridor-scale monitoring data	On-track	8
3.2	Build the capacity of key agencies and partners to collaborate in planning and managing the corridor	Delayed	8
3.3	Partner with local agencies and the private sector to create a program to financially sustain the corridor management structure	Delayed	8
4.1	Maintain Connectivity and Ecological Processes in the Serra de Maracaju – Negro Corridor by creating new private protected areas.	Delayed	9
4.2	Implement a monitoring and evaluation process of the Corridor management system, applying results to guide the next steps of the project	On-track	10
4.3	Increase knowledge on Corridor threats and disseminate findings	On-track	10
4.4	Support land use planning and assistance for the Corridor municipalities located at the headwaters of the Rio Negro	Delayed	11

II) Brazil

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

This program was designed to consolidate the Cerrado-Pantanal Biodiversity Corridor (Emas-Taquari and Maracaju-Negro) and apply the lessons learned, partnerships and tools to implement the Jalapão/Western Bahia Biodiversity Corridor. The implementation of the Cerrado - Pantanal Corridor is being carried out by the leadership of local partners, who, in

their turn, have been working on their own network of partnerships and connections. In the Jalapão/Western Bahia Corridor, the current status of development and implementation still find local partners building technical capacity to enable them to promote the necessary integration with local communities and facilitate the desired change of attitude, that is, the incorporation of biodiversity in their daily management activities.

In all areas where we work, the biggest challenge is to promote land use and exploration of natural resources in a way compatible with biodiversity conservation. The involvement of public agencies, land owners and urban population is essential to establish commitments and developing actions that reduce human impact on biodiversity. Expected results include the gradual and sustained reduction of systemic problems, which generally are a consequence of undervaluing and mismanaging natural resources, lack of planning and control of land occupation and use of natural areas, and lack of participation of local communities in the decisions to use and conserve these resources. This huge challenge will only be met successfully in the long run, since a substantial part of the solution depends on changing the outlook and understanding of the role of biodiversity, its components and environmental services it offers to the very society that impacts on it.

Our strategy is based on four lines of action: (a) build capacity of local stakeholders to act as multipliers and disseminators of conservation notion; (b) offer land use alternatives that are compatible with conservation, drawing on experiences and institutions already present in the region; (c) create a network of public / private protected areas able to maintain large quantities and diversity of environments, to serve as the regional source of biodiversity and, finally, (d) establish a transparent way to monitor changes in land use and biodiversity that will help in the regional landscape planning and management.

B) Summary of Progress for Site

The main results achieved this fiscal year include:

- Produced and distributed 600,000 seedlings of Cerrado trees to recover degraded areas and forests in Emas-Taquari Corridor. With this project, a total of 200 ha of critical habitat will be restored.
- Oreades established a partnership with Perdigão, one of the largest food companies and exporters in Latin America and provide environmental compliance inspections of Perdigão suppliers' farms.
- Updated of the land use map in Emas-Taquari and Jalapão-Western Bahia biodiversity corridors.
- Completed mapping forest remnants of the Córrego do Café basin, on the Rio Negro headwaters. This product is key for environmental compliance programs aimed at landowners, creating conditions for connecting mapped legal reserves and permanent protection areas in the region.
- Completed socio-economic assessment of the Rio Negro and Corguinho municipalities for sustainable economic activities.
- Mapped forest remnants in the Upper Paraguay basin, for assessing and monitoring threats and conversion of natural areas.
- Supported the creation of 11 new Private Natural Heritage Reserve (RPPN) at upper Paraguay Basin (UPB), as well as support for implementation and consolidation of 12 already officially recognized RPPNs. This activity increases by almost 2,600 ha the area under legal protection in UPB and improves management to almost 46,000 ha of private reserves by means of the Pantanal's Private Reserve

Incentive Program. The Program is developed by the Association of Owners of Private Natural Heritage Reserves in Mato Grosso do Sul state (REPAMS).

The main changes and setbacks of the project include:

- Bioeste Institute lost some of its staff and there was a delay in replacing them. CI and Oréades did pick up some of the slack but it did ultimately result in some activity delays. Specifically, the land use monitoring in Jalapão – Western Bahia Corridor and the support to local municipalities, as well as some of the environmental education activities.
- CI also experienced staff loss in both its GIS and Communications Departments. This also contributed to some implementation delays. However, we are in the process of filling those positions.
- In the beginning of 2007, IBAMA was divided in two entities. Responsibility for environmental licensing processes and the management of protected areas was delegated to a new agency, The Chico Mendes Institute for Biodiversity Conservation. This change was not well received by staff and resulted in a two-month strike, which in turn halted such activities as issuing research licenses in federal protected areas. Internal negotiations continue about the new agencies functions and responsibilities.
- There were staff changes in the government of Mato Grosso do Sul state and this impacted the management of state protected areas. There have been also changes in the policy division staff of the state government. As a result, many activities were delayed.

C) Activities

Objective 1: Foster alliances between southern and northern Cerrado organizations to design and begin implementation of a Biodiversity Corridor in the Cerrado's agricultural frontier

We have advanced considerably in strengthening our partners in the new Jalapão/Western Bahia Corridor and in further developing the relationships among the new partners -- Bioeste, focusing on the eastern part of the corridor and Onça d'Água and Naturantins, focusing on the western part of Jalapão and our long-standing partner, Oreades, from the Emas-Taquari Corridor. There were successful exchange visits between Bioeste and Oreades and they began some collaborative activities. Bioeste is adapting and applying the lessons learned from the Emas-Taquari Corridor work. However, turnover in the organization delayed certain activities. Oreades continues to act as a key local technical resource for any planning and biodiversity conservation assessments in the Emas-Taquari Corridor by maintaining strong relationships with a growing number of local stakeholders, including universities, NGOs, and government agencies. In the Jalapão region, we are working closely with the Tocantins Environmental Secretariat (Naturantins) that operates under the arm of the Tocantins State Secretariat of Planning (SEPLAN) and with Onça d'Água, our local partner for community outreach.

The key steps to accomplish this were:

- **Link the existing Cerrado-Pantanal corridor structure with the northeastern region, through a long-term learning and knowledge-transfer program driven by local**

stakeholders

In this phase of Corridor implementation, the partner's network is now complete. Oréades has been helping Bioeste with its environmental education, GIS and communication tasks. Newsletters enhanced the exchange by maintaining and documenting the exchange of information.

The GIS vacancies weren't filled until recently so we couldn't carry out the training in Jalapeo and Western Bahia this year. We will reschedule this task for next year.

- Work with North-South alliance to build park management capacity in the North

CI finished an initial technical fire study in Jalapão region, which was then presented at the first Workshop on Conservation and Sustainable Development in Jalapão, along with a proposal to reduce the impacts of fire in the region. Specifically, we proposed ways of reducing fires during the dry season, pastures management during the wet season and the creation of a network of firebreaks, connecting the State Park and the Ecological Station. The critical areas to prevent fires were mapped and is now an effective visual aid for public awareness and capacity building campaigns for reducing fires in rural properties.

Also at the workshop, academia (both local and major Brazilian universities), official environmental agencies private institutions (most related to tourism trade), local communities, and NGOs discussed themes ranging from biodiversity research to sustainable economic activities to wildfire control. More than 20 research topics were presented and discussed.

The workshop was very successful in strengthening the dialogue among managers of the three main protected areas (two under federal and one under state jurisdiction). As a result of this workshop, a technical meeting is being organized with Naturatins, IBAMA, CI and local stakeholders to prepare a fire control plan.

Basic GIS corridor data, covering protected areas, biodiversity, watersheds and agriculture, was updated. A library of satellite images covering all corridors was developed and will be distributed to partners next year.

The monitoring system for the Jalapão/Western Bahia Corridor was discontinued when the GIS technicians from CI and Bioeste left the organizations. Nevertheless, the land use map (using 2006 images), an important baseline for zoning the area for the management plan, was completed. It'll be published next year, after review by local partners.

Unfortunately, due to all the organizational changes at IBAMA, they were not in a position to work on the management plans for the federal protected areas of Ecological Station of Serra Geral do Tocantins and National Park of Nascentes do Parnaíba. However, we made considerable progress at the state park. New Jalapão State Park boundaries are delineated, based mostly on the protected area management plan. All necessary studies and documentation were submitted to the Tocantins State Governor and we expect the proposal to be approved shortly. The new limits will exclude some communities whose lands were included within the Park boundaries. The new boundaries will reduce social conflicts in the region.

- Work with northeastern corridor stakeholders to create new public and private protected areas

In the beginning of 2007, a new map of Cerrado and Pantanal Priority Areas was published. This revision was supported by CI and WWF-Brazil, which provided capacity building

opportunities for IBAMA and MMA's technicians in the use of modeling tools. CI's Key Biodiversity Areas database provided criteria for selecting target species, and also occurrence records for all Cerrado and Pantanal globally threatened and restricted range vertebrate species. A general evaluation of the protected areas in each biome has been conducted, as well as an identification of complementary areas, necessary to assure the representativeness of the protected areas system. In the Cerrado, 120 areas were identified to create Pas. Six are located within Jalapão – Oeste da Bahia Corridor range. Three of them were identified as preferably strict protection PAs and the other three as sustainable use PAs.

Objective 2: Build local support for Northeastern Corridor

CI continued to invest in Bioeste's technical expertise in building alliances with the communities and key organizations. We are also expanding their network by introducing them to both public and private organizations that may be interested in funding their work in the future. Environmental education, communication and integration activities are being conducted as planned, under CI's supervision. Establishing municipal nuclei continued as Bioeste strengthened relations with the state and municipal governments. However, some modifications to last year's workplan occurred.

Our support to environmental agencies for management and implementation of the Jalapão State Park has increased community support for valuing the Cerrado protected areas. As a result, they have facilitated research and support sustainable tourism and environmental education for local communities. The advances in infrastructure establishment in the Jalapão State Park are also encouraging managers of adjacent PAs (Nascentes do Parnaíba National Park and Serra Geral do Tocantins Ecological Station) to seek out resources to improve management conditions in these areas.

The key steps to accomplish this were:

- **Build support and assist in generating a long-term change of behavior in land use in the corridor using communication and environmental education**

Onça d'Água is working closely with Jalapão region ecotourism operators, improving their knowledge, providing training and building overall institutional capacity. This past year, they prepared guidelines for tourist activities in the Serra do Espírito Santo hiking trail, including safety measures and carrying capacity estimates. This document is under review by Naturatins. To strengthen the local industry, all twenty local operators in Mateiros and São Felix do Tocantins also formed an ecotourism guide association. Five of these were also trained and now are part of the local fire brigade, supporting Jalapao State Park staff during the dry season, the most critical period for fire control.

In the eastern side of the corridor, Bioeste is providing training on environmental education activities to teachers of local primary schools. This past year, 150 teachers were trained in environmental education tools and principles, following the model adopted in Emas Taquari Corridor. These trained teachers will be monitored during the following fiscal year.

One great problem identified by educators in the region is the lack of awareness of local people about the importance and biodiversity value of the Cerrado. Due to staffing changes at both CI and Bioeste, we were unable to launch another radio program. However, Bioeste was able to get free air time from a local television station. Thirty second spots with the theme - Cerrado, Protected Areas and Water - were produced by Bioeste.

Bioeste and CI also began production of a mobile photography exposition, focusing on the Cerrado, its beauty and problems. Last year, technicians from both organizations followed the photographer Luciano Candisani on a trip to Jalapão and West Bahia. Photographs have

begun to be selected for the exposition. Some photos can be seen at: <http://www.candisani.com.br/cerrado-1>, a beta version of the page. The final version will have the required USAID branding.

- Increase partner development capacity

During this fiscal year, Onça d'Água worked to increase community income via ICMS Ecologico in Mateiros and São Félix do Tocantins municipalities. Technical agreements between Onça d'Água and the municipal governments were signed, and activities to evaluate and improve current levels of compliance to environmental requirements, train local administrators, and discuss the Municipal Environmental Plan, all important to increase the income from ICMS Ecologico, began.

The MOU between Bioeste and Bunge should be signed later this fall. There were some minor delays but both partners are committed to replicate the Emas-Taquari Corridor success in the Western Bahia Legal Reserve and permanent Pas.

Objective 3: Facilitate and encourage efforts by Cerrado-Pantanal Corridor members to finish implementing the Emas nucleus of the Cerrado-Pantanal Corridor

The Emas-Taquari Corridor is the most advanced biodiversity corridor in the Cerrado. It was the first corridor project to be implemented in the field and the lessons learned contributed tremendously to subsequent projects. During this fiscal year we continued providing information on the biodiversity value and uniqueness of the Cerrado to local stakeholders, facilitating the engagement of the private sector and governmental agencies in conservation activities. Actions in the corridor have stimulated a new way of looking at the Cerrado and its preservation. Different members of society - students to land owners - receive important and previously unavailable information about the significance of the biome for preserving soil, biodiversity, and water resources.

The key steps to accomplish this were:

- **Ensure that key partners and community planners have the capacity to obtain and use corridor-scale monitoring data**

Oréades supported NEAs (Environmental Education nucleus) of Costa Rica, Chapadão do Céu, Mineiros and Serranópolis municipalities, and also gave technical assistance to GIS labs in Chapadão do Céu, Coxim e Mineiros. The capacity building program involving local teachers in monitoring the distribution of the games was held during events led by "Tenda do Cerrado". In Mineiros, Chapadão do Céu, and Serranópolis, more than 180 teachers were trained.

Oréades' work to monitor corridor land use changes is advancing on two fronts - satellite images followed by field validation. Landsat and CBERS images from 2002, 2004 and 2005 were analyzed and we have the first results - habitat loss rates in the region have kept constant, with slight variations among municipalities. The results of these analyses are being presented to government technicians within the activities of the Cerrado Tent (please refer to success history above). Anecdotal evidence suggests that ProLegal's efforts to increase enforcement and the public awareness campaign contributed to this result.

- **Build the capacity of key agencies and partners to collaborate in planning and managing the corridor**

Most of the first phase of the EMAS National Park Biodiversity monitoring project was completed and will formally end October 2007. During this first phase, the permanent parcels were established and the collection of biological data for some species groups began. The biodiversity report has been delayed slightly and is scheduled to be completed by November 2007, when the second phase of the monitoring will take place.

SIMBIO, the National System of Biodiversity Monitoring has been abandoned by IBAMA, and a new system for biodiversity monitoring is still under debate. As cited earlier, the changes in IBAMA/Chico Mendes Institute are affecting most initiatives related to the environment, and we are still in a period of transition. However, the goal is to integrate our monitoring scheme into the official system as soon as it is re-established.

Oréades continued to raise municipal-level planning capacity. This fiscal year, the master plan for the city of Costa Rica was finished, training local technicians throughout the mapping process. Development of a similar process began with Mineiro's municipal government.

- **Partner with local agencies and the private sector to create a program to financially sustain the corridor management structure**

The PróLegal continues to notify local landowners and Oréades worked on the registering farms in the area surrounding Emas National Park. By the end of this fiscal year, Oréades had already worked with more than 76 farms, in a total area of approximately 280,000 hectares. Of these, some 15,000 are destined for habitat recovery, mostly in permanently protected areas (along waterways and escarpments). However, we weren't able to achieve our original goal of supporting creating a private reserve since the municipal environmental agencies have yet to review the proposal.

Oréades also began working with Perdigão, one of the major Brazilian food processors, to be more environmentally sensitive. Perdigão buys its raw materials from about 40 landowners. Oréades is analyzing these farms to check their compliance with the forest code and water use restrictions. In addition, Oréades continued working, in collaboration with BUNGE, with the soy producers. Oréades is seen as a resource for environmental monitoring and adaptation.

Objective 4: Expand Cerrado-Pantanal corridor protected areas in the Pantanal basin and consolidate ownership of the corridor management system to local partners and stakeholders

We continued working in the Serra de Maracaju-Negro Corridor, focusing on promoting the creation of new private reserves, monitoring the major threats to the region, and restoring degraded areas in critical areas. Although all activities made some progress, we did experience delays. Most were due to factors outside of our control but we are confident that we will make up for this in the coming year.

The key steps to accomplish this were:

- **Maintain Connectivity and Ecological Processes in the Serra de Maracaju – Negro Corridor by creating new private protected areas**

The third call for proposals to create and implement private reserves has been delayed due to lack of sufficient financial support. However, we foresee having the necessary funds in the coming year and will launch the third call for proposals then. We've also begun discussions with government environmental agencies to improve their proposal review and approval process. The current timeframe is about a year and we're concerned that we will lose interest from potential participants if this doesn't change.

Beyond reinforcing the program in the Pantanal and corridor region, we are talking to donors about expanding the RPPN's program. CI's funds would be used as seed-money to bring in more funds. A new format for calls for proposals allowing any organization working on the creation or support of a RPPN to participate will be implemented. This initiative will contribute to strengthen REPAMS (Association of Owners of Private Reserves of Mato Grosso do Sul), and also allow other similar institutions to work in this front. The program will take calls from other regions of the Pantanal and Cerrado, prioritizing areas of known biological importance.

Plans to create two RAMSAR sites in the Pantanal's plains area have been delayed. The proposal for the first, is being processed by the Environment Ministry – MMA. The second proposed site includes the Rio Negro's Pantanal State Park and two other private reserves adjacent to it. However, the state park is under government control and the 2007 elections affected management of the park and thereby delayed the proposal process for this site. In the meantime, we formally began working with the Environment State Secretary – SEMAC-MS to work with the owners of the private reserves which are part of the site proposal and are also part of the Rio Negro's Valley Association – AVRN. AVRN will have a strategic role to promote discussions about the definition of joint initiatives for the rural water basin properties within Maracaju-Negro Biodiversity Corridor.

- **Implement a monitoring and evaluation process of the Corridor management system, applying results to guide the next steps of the project**

An evaluation of activities in the municipalities of the Serra de Maracaju-Negro Biodiversity Corridor was made in the following cities: Corumbá, Rio Negro, Corguinho, Rio Verde de Mato Grosso and Aquidauana. All people and institutions interviewed were chosen based in a compilation of participants lists of all events promoted in the municipalities, many of them promoted by the alliance between CI-Brazil and OIKOS – Cooperativa de Trabalhos Socioambientais. A total of 45 questionnaires were submitted and of them, 82% stated to have participated in an activity promoted by the project.

Sixty percent of the interviewees stated to have developed a conservation/preservation activity after participation in a project activity. Cited activities included promoting the project's name and mission, creating local environmental organizations (two NGOs were created), and environmental education activities (environment week, talks in schools, parades and ecological awareness events). Even the development of a PhD thesis was cited, developed at Rio Negro Farm between 2000 and 2002.

In general, the evaluation shows that the impact of the project on individuals and groups, even those in public institutions, has helped mitigate the stalled actions of the municipalities.

Increase knowledge on Corridor threats and disseminate findings

The reevaluation of deforestation rates in the Upper Paraguay River Basin (UPB) was elaborated using the same methodology as in the previous evaluation. We found that deforestation, as a result of poor settlement planning, has been one of the major factors which threaten several species of the region. The situation is being made worse by the expanding agriculture frontier, including sugar cane for ethanol production. According to the Brazilian Institute of Geography and Statistics, in the last four years there has been an increase of 150,000 hectares, or 33%, in the agricultural lands in Centre-West region¹ and Bahia state.

The evaluation of the productive chain is complete and the document is under final revision. In the “Dialogue Platform between Second and Third Sectors: Pantanal – Corumbá’s Mining – Industrial Complex”, besides CI’s participation, four companies related to mining, steel industry, petrol and gas exploitation, and nine NGOs which work in the Pantanal region. This initiative aims at promoting an accurate and qualified dialogue between those organizations to identify environmental friendly standard procedures to be adopted by those companies to be installed or those wanting to enlarge their exploitation activities. The meetings are occurring regularly and one of its first products is the elaboration of a “Strategic Environmental Evaluation of Corumbá’s Productive Sector Development Program and its influence in Pantanal floodplain”. This evaluation will organize the discussion inside the group about the main impacts and effects of proposed and ongoing regional exploitation projects on the environment and will be key to defining necessary actions related to licensing processes.

- Support land use planning and assistance for the Corridor municipalities located at the headwaters of the Rio Negro

Working in coordination with multiple players always adds an element of complexity to any activity. This was the case with the restoration project and the low-impact development project. Both were carried out by Rio Negro Environmental Preservation Association (APREMARINE) work. This association is CI’s newest partner working at Serra de Maracaju-Negro Biodiversity Corridor. Although the task wasn’t completed, they’ve made significant progress by completing the diagnosis of a sub-watershed located in Negro River headwaters region. The focal area of the project, Café’s Creek, comprises 7,000 ha and involves 40 farms. Fortunately, the area has all native vegetation that has already been mapped, making it easier defining which ones are most important for restoration.

The first phase of implementing a low-impact development project was completed – the regional socio-economic assessment. The results were presented to both municipalities, with attendance of all local stakeholders. We identified the following project options: fish farming, beekeeping, fruit cultivation, dairy cattle farming, rubber tree cultivation, forestry, egg production, and tourism. A feasibility study of each will be conducted this fall. The results will again be presented to stakeholders for feedback.

The landuse maps will be completed by the end of this calendar year. The loss of our GIS Technician caused the delay but now that we’re fully staffed, we see no reason for further delays.

¹ This region comprises the Mato Grosso do Sul, Mato Grosso, Goiás States and the Federal District.

Appendix 1 List of Attachments

BRAZIL

1. Site map

Appendix 2

List of Acronyms

Brazil

APP - Permanent Preservation Área (*Área de Preservação Permanente*)
APPAN – Pantanal Inns Association
APREMARINE – Rio Negro Environmental Preservation Association
AVRN - Association of farm owners of Rio Negro Valley
BA – State of Bahia
BCM – Biodiversity Corridors Municipalities
CBERS - Sino-Brazilian Satellite (*Satélite Ambiental Sino-Brasileiro*) managed by the Brazilian Space Agency - INPE
COIMTA -- Inter-municipal Consortium of the Taquari Basin
EMBRAPA -- Brazilian Agricultural Research Agency
ESALQ -- Advanced Agricultural Center from University of São Paulo)
FEMAGO - State Fund for Environment in Goiás State
FNMA -- National Fund for the Environment
GO – Goiás State
IBAMA - Brazilian Environmental Agency
IBGE – Brazilian Institute of Geography and Statistics
ICMS – Brazilian value-added tax
IEB - Brazilian International Institute of Education
IMAP -- Pantanal Institute
INPE – Brazilian Space Agency
IPP – Institute of the Pantaneiro
IUCN -- The World Conservation Union
KBA – Key Biodiversity Area
LIMA – Interdisciplinary Environment Lab
MMA -- Ministry of Environment
MODIS -- Moderate Resolution Imaging Spectroradiometer
MS – Mato Grosso do Sul State
MT – Mato Grosso State
Naturatins -- Environmental Secretariat of Tocantins State
NEAs – The environmental education and communication stations
NOAA – National Oceanic and Atmospheric Administration
REPAMS –Private Reserve Landowners Association of Mato Grosso do Sul
RL – Legal Reserve
RPPN – Natural Heritage Private Reserve
SEBRAE -- Brazilian Micro and Small Business Support Service
SEMA -- Environmental State Secretary
SEMARH – State Environment and Water Secretariat
SEPLAN – State Planning Secretariat
SIMBIO -- National System of Biodiversity Monitoring
TAMARIN – Toolbox of Applied Metrics and Analysis of Regional Incentives
TNC – The Nature Conservancy
TO – Tocantins State
UEG – State University of Goiás
UFG – Federal University of Goiás
UFT -- Federal University of Tocantins
UFMS – Federal University of Mato Grosso do Sul

ULBRA -- Brazilian Lutheran University
UnB – University of Brasilia
UNITINS -- University of Tocantins
UPB – Upper Paraguay river Basin