1. Project Data

Summary project data			
GEF project ID		1642	
GEF Agency project ID		66536	
GEF Replenishment Phase		GEF - 3	
Lead GEF Agency (include all for joint projects)		World Bank	
Project name		Formoso River: Integrated Watershed Management and Protection Project	
Country/Countries		Brazil	
Region		LAC	
Focal area		Biodiversity	
Operational Program or Strategic Priorities/Objectives		Coastal, Marine and Freshwater Ecosystems Forest Ecosystems	
Executing agencies involved		Embrapa Soils, Andre Tosello Foundation, Candido Rondon Foundation	
NGOs/CBOs involvement		Conservation International	
Private sector involvement		Executing Agency (Embrapa Soils)	
CEO Endorsement (FSP) /Approval date (MSP)		8/8/2002	
Effectiveness date / project start		10/12/2005	
Expected date of project completion (at start)		10/30/2009	
Actual date of project completion		10/31/2010	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0.97	0.97
	Co-financing		
GEF Project Grant		0.97	0.97
Co-financing	IA/EA own		
	Government		
	Other*	1.18	1.18
Total GEF funding		1.00	1.00
Total Co-financing		1.18	1.18
Total project funding (GEF grant(s) + co-financing)		2.18	2.18
Terminal evaluation/review information			
TE completion date		12/1/2010	
TE submission date		04/30/2011	
Author of TE		Anna Roumani	
TER completion date		12/06/2013	
TER prepared by		Dania Trespalacios	
TER peer review by (if GEF EO review)		Joshua Schneck	

*Includes contributions mobilized for the project from other multilateral agencies, bilateral development, cooperation agencies, NGOs, the private sector, and beneficiaries.

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF EO Review
Project Outcomes	S	S	--	S
Sustainability of Outcomes	ML	ML	--	ML
M&E Design	S	NA	--	S
M&E Implementation	S	S	--	HS
Quality of Implementation	S	S	--	MS
Quality of Execution	S	S	--	S
Quality of the Terminal Evaluation Report	NA	NA	--	S

3. Project Objectives

3.1 Global Environmental Objectives of the project:

According to the Project Document for CEO Approval (2002), the project's overall objectives are to "contribute to the conservation and sustainable use of biodiversity of global importance, and to promote the control of land degradation in the Formoso Watershed".

The Formoso River Watershed is an area of primary forests, native grasslands and savannah forests in the Brazilian Atlantic Forest region. It is a source of pristine and clear water for the aquatic environments of The Pantanal, the largest permanent freshwater wetland system in the Western Hemisphere and a region of highest priority for conservation due to its globally outstanding biological distinctiveness and vulnerable conservation status. Both The Pantanal and the Formoso River Watershed are facing severe environmental problems, including deforestation, erosion and excessive sedimentation from agricultural expansion and unsustainable agricultural practices. This project aims to conserve one important biodiversity area (Formoso River Watershed), and thus influence the conservation of its larger ecosystem (The Pantanal).

3.2 Development Objectives of the project:

Specifically, the project objectives were to:

1) Promote the strengthening of local environmental and agricultural institutions and communities, providing land use tools for the formulation and implementation of an integrated watershed management plan.
2) Promote the integrated management of existing public and private protected areas.
3) Support the implementation of sustainable livelihood activities on a demonstrative basis that would reduce pressure on key natural resources and rehabilitate natural habitats, particularly riparian and savannah-like vegetation.

The expected project outcomes include:

1) Development of an integrated watershed management plan with stakeholders, complemented by two detailed plans for critical micro-watersheds. Development of a strategy for the integrated management of protected areas. An improved/harmonized regulatory framework.
2) The implementation of a sustainable development and integrated ecosystem management training and education program for community members. Integration of biodiversity management concepts into relevant agencies.
3) Establish a participatory project management structure that will be disseminated to other parts of the region (Paraguay, Paraná, Plata).
4) Establish a Monitoring and Evaluation Program. Finalize and implement a project dissemination strategy.
5) Pilot sustainable economic activities that will reduce pressure on natural resources

According to the Project Document for CEO Approval , "the project will benefit 150 farmers with holdings of less than 100 ha and other key stakeholders in the Formoso Watershed, including local tourism agents, guides, entrepreneurs, artisans , state and municipal environmental and agricultural officers, and citizens". Specific project objective was to:

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

No changes in objectives were noted between the Project Document for CEO Approval, the Terminal Evaluation (TE), or the final Project Implementation Report (PIR).

4. GEF EO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: **Satisfactory**

The project outcomes were consistent with the Biodiversity Focal Area, including the objectives of: improving the sustainability of protected area systems; and mainstreaming biodiversity conservation and sustainable use into production landscapes and sectors. The project outcomes include the development of the Rio Formoso Watershed Management Plan, complemented by the development and initial implementation of management plans

for the critical micro-watersheds of Sao Sebastiao and Angelica, tributaries of the Rio Formoso.

The project strategy included 6 key principles that promote the symbiotic relationship between biodiversity conservation and productive growth: (1) targeting of priority biodiversity-related problems; (2) intense stakeholder involvement; (3) integrated solutions exploiting the expertise and authority of multiple entities; (4) federal, state, municipal and grassroots institutional capacity; (5) an improved regulatory framework; and (6) monitoring/measurement of project progress and impact.

The project also is in line with country priorities. Conservation and the sustainable use of biological diversity through sustainable land management is a national priority in Brazil, a signatory to the Convention on Biological Diversity, CITES, and the Ramsar Convention on Wetlands. Brazil has instituted a National Program for Biological Diversity (PRONABIO), a National Biodiversity Project (PROBIO), the creation of the Brazilian Biodiversity Fund (FUNBIO), the formulation of a National Strategy for Biological Diversity, and demonstrates wide support for biodiversity research and conservation through various government programs, including the National Environmental Fund, the National Environmental Program, the Pilot Program for the Conservation of Tropical Rain Forests.

4.2 **Effectiveness**	Rating: **Highly satisfactory**

The project outcomes included are exactly those that were expected at the start of the project, and they address the problem of conservation of biodiversity by promoting the control of land degradation in the Formoso Watershed. They include:

- Formulation of the Rio Formoso Watershed Management Plan
- Formulation of a strategy for integrated management of protected areas
- Formulation of detailed watershed management plans for critical micro-watersheds of Sao Sebastiao and Angelica
- Harmonization of existing regulatory framework for integrated watershed management and biodiversity conservation
- Implementation of the Support Center for Rural Activities and Agricultural Production
- Transformation and use of organic solid residues
- Development of pilot units and multi-functional land use
- Project Impact Monitoring System, specifically of soil and water indicators, terrestrial biodiversity indicators, and social and economic indicators

Legislative harmonization of the environmental regulatory framework to achieve further integration of biodiversity conservation and watershed management concepts was achieved via a legislative proposal to regulate a state law of 1988 relating to the “use of permanent protection areas along water courses”. At project closing, the proposal was under analysis by the State Environmental Secretariat.

The project contributed to the development of a strategy for the integrated management of protected areas, with proposals to define ecological corridors including private reserves, riparian habitats and conservation units.

Education programs were developed and implemented for community members. Some 293 agricultural and environmental technicians, rural producers participated in courses in technologies and processes for sustainable natural resources management and conservation associated with better agro-livestock productivity. The project integrated stakeholders into the State's Environmental Education network. Education activities included: (i) communications via web portal developed by the State Environmental Education Network (REAMS); (ii) the "Bonito Forever" project involving environmental education workshops, and technical visits by teachers/students to ecological sites state-wide; (iii) dissemination of project EE activities at the VI Brazilian Forum on Environmental Education in Rio de Janeiro, which also served as a technical training opportunity.

Pilot sustainable economic activities were implemented on three sites. Technicians were trained at these sites in multi-functional cropping systems, and the methodology fostered collective learning through demonstration. Local farmers adjacent to pilot areas visited the pilot sites, subsequently planting new agro-forestry systems on their own land. The State Agrarian Development and Rural Extension Agency (AGRAER) conducted activities to increase agro-industrialization of organic food products, providing an incentive for collective production and marketing.

A project monitoring and evaluation system was established. Soil and water resources were monitored in the two critical micro-watersheds and pilot units in the Santa Lucia Settlement. The project "was of fundamental importance for monitoring superficial water sources and a pioneer in experimenting with artificial sub-strata for monitoring biological indications".

4.3 **Efficiency**	Rating: **Moderately Satisfactory**

In general, the project was cost effective, although there were moderate shortcomings.

Project start-up was slow following effectiveness due to: (a) changes in the baseline situation since the project was prepared (including a newly-created protected area/park); (b) efforts needed to re-activate the project collaborative partnerships as well as more precisely define roles and responsibilities in view of the long gap between preparation and effectiveness; and (c) initial learning curve for the Candido Rondon Foundation (CRF) which lacked experience in the financial management of a Bank GEF operation.

The project required a one-year extension of the Closing Date to end-October 2010 and a reallocation of grant funds in 2010 to ensure successful completion and consolidation of remaining key activities.

Disbursements were slow: in the third year of a four-year project, disbursements were only 47% of the Grant. The project was complex and required monitoring of all aspects. However, supervision resources were scarce, especially for technical supervision, and efforts to secure additional Bank budget had only limited success.

Links between Federal (Embrapa and the Federal University of Mato Grosso do Sul (UFMS), which also cooperated on the project), state and municipal agencies and NGOs were very successful, and the results of this multi-institutional collaboration helped to integrate field activities such as demonstration units planted in critical micro-catchment areas, and monitoring activities.

The project preparation and approval period was excessively long for which the Bank and Embrapa/Soils share responsibility. This affected the speed and efficiency with which project activities could be launched following effectiveness.

Most supervision missions occurred in tandem with other missions to save resources, which tended to curtail the time available to address specific project issues/needs. Several problems which occurred over the life of the project could have been addressed/resolved faster with closer supervision.

4.4 **Sustainability**	Rating: **Moderately Likely**

The project's participatory planning instruments, successful and replicable inter-institutional partnering experiences, and proven demonstration effects of the pilot agro-ecological activities, are expected to contribute to the sustainability of most project activities/achievements. Despite the project's small size, it had numerous synergistic effects and impacts that have the potential to leverage more profound impacts over time. However, while there is a strong likelihood of longer-term duration, it cannot be guaranteed. At project closing, many activities were too "young" to have absolute predictive value. In the case of agro-ecological behavior changes induced by the project, sustainability depends to a great extent on farmers' perception that new land management practices will benefit their bottom line and this entails a period of consolidation and maturation of the activities implemented

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

Due to ineffective financial management on the part of Candido Rondon Foundation, the executing agency, the successful completion of project objectives was jeopardized. The Candido Rondon Foundation provided additional funds totaling US$243,788: a) Partnership with SEBRAE valued at R$150,000 as contribution to the socio-economic diagnosis of Bonito Municipality; (b) Partnership with the Ministry of Agrarian Development (MDA) through its Secretariat for Family Agriculture valued at R$40,000 as contribution to agro-ecological training for farmers in 2010 (c) Embrapa/Soils helped leverage an additional US$162,332 as follows: (i) CNPq resources totaling R$83,200 for a Visiting Researcher; (ii) CIAT-Embrapa funding totaling US$80,000 for capacity building of extension technicians to apply participatory methodology for integrating local and technical knowledge on soils and land management; and (iii) US$30,309 from the EU-funded Sensor Project to supplement some final project activities, mainly monitoring activities and participatory assessments.

Without this co-financing, the project not have been as successful.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The Andre Tosello Foundation (ATF) was earmarked during project preparation as co-executor of the GEF due inter alia, to its ongoing agreement with Embrapa as the financial arm of Embrapa-coordinated projects (including the Bank-supported PRODETAB agricultural research project). However, ATF went out of business and finding another foundation took time. The Candido Rondon Foundation – a competent and committed institution but less experienced in dealing with international organizations – was selected via a Bank-supervised, competitive process.

Project start-up was slow following effectiveness due to: (a) changes in the baseline situation since the project was prepared (including a newly-created protected area/park); (b) efforts needed to re-activate the project collaborative partnerships as well as more precisely define roles and responsibilities in view of the long gap between preparation and effectiveness; and (c) initial learning curve for the Candido Rondon Foundation (CRF) which lacked experience in the financial management of a Bank GEF operation.

The project required a one-year extension of the Closing Date to end-October 2010 and a reallocation of grant funds in 2010 to ensure successful completion and consolidation of remaining key activities

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

This information is not found in the TE.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: **Satisfactory**

One of this project's expected outcomes was the establishment of a monitoring and evaluation system, as well as a dissemination strategy. The Project Document for CEO Approval includes a "Monitoring and Evaluation Plan" section, including a timeline, specific indicators, a dissemination strategy for results. Although promising, this section does not include details on targets, logistics, and specific indicators.

6.2 **M&E Implementation**	Rating: **Highly Satisfactory**

This project established a monitoring and evaluation system that included soil and water samplings, the second of which will continue after project completion. The TE notes that the final phase of biodiversity monitoring of plant and bird species "did not occur before closing because the SASP needed to have a longer period to consolidate and mature to have measurable impact on local biodiversity".

The Final PIR notes that the project "was of fundamental importance for monitoring superficial water sources and a pioneer in experimenting with artificial sub-strata for monitoring biological indications".

The TE does not indicate that the M&E system established was used to improve and adapt project performance, nor does it indicate proper training of responsible parties. Compared with other projects, this project diligently reports on M&E activities that were an important component and objective.

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: **Moderately Satisfactory**

The TE notes that this project was initially planned as a larger project in the context of a large Inter-American Development Bank (IDB) loan that was later cancelled. The TE notes that the "ambitious development objectives, technical parameters and multiple activities/sub-activities suggest the project was over-designed". As a result, project implementation suffered. Although expected outcomes were achieved successfully, the project's minor shortcomings might be attributed to inadequate modification of project design once the project shifted size and funding.

The TE notes that the project was supervised as effectively as the limited supervision budget permitted, suggesting an insufficient allocation of funds. The TE notes "most supervision missions occurred in tandem with other missions to save resources, which tended to curtail the time available to address specific project issues/needs. The Bank team was unable to attend the final evaluation workshop due to lack of resources…. several problems which occurred over the life of the project could have been addressed/resolved faster with closer supervision."

7.2 **Quality of Project Execution**	Rating: **Satisfactory**

There were two executing agencies in this project: Embrapa Soils and Candido Rondon Foundation.

The TE describes Embrapa as having "undisputed technical and professional competence", but decries the project's 2-3 year implementation delay to Embrapa's difficulties in finding a foundation to conduct financial management. The TE commends Embrapa for astute leveraging of partnerships, high quality reports, quick responsiveness, and enthusiastic and committed disposition.

The TE notes that Candido Rondon Foundation helped to leverage additional resources for the project, and significantly engaged with the project. It was judged responsive, and its performance was satisfactory to both the World Bank and Embrapa Soils. However, the Foundation was inexperienced in international projects, and as a result had issues with exchange rates and processing times for resource allocations.

8. Lessons and recommendations

8.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

Protracted project preparation, as well as delayed effectiveness, can deflate and outdate a project, requiring considerable effort and time to re-engage and re-energize relevant people and organizations, and impeding its efficient launching and implementation. Under such circumstances, key design features and implementation arrangements may need review and updating prior to Board presentation to ensure validity, timeliness and commitment.

Recipients with little/no experience with international funding need support/training. There are risks associated with recruiting a relatively inexperienced Recipient, but the important institutional capital formation which may occur is a valuable development.

Project supervision requirements are much the same whether a project is large or small.

Many government agencies in Brazil are using foundations and social organizations to facilitate the financial, administrative and procurement functions of projects. The foundation becomes the legal Recipient, providing a set of complementary fiduciary services which relieve partner agencies of certain associated difficulties.

The major obstacle for project coordination was the distance between the Coordinator's office, executing agencies in Mato Grosso do Sul, and field operations in Bonito. Urgent decisions were hampered by distance and communication difficulties. Thus, efficiency would be greatly enhanced if the Technical Coordination office were located in the same region as field activities and executing agencies.

The Project demonstrated the value of a project coordination structure governed/led by a prominent, experienced institution with technical, operational and managerial expertise – in this case Embrapa Soils (Executor) – complemented by partnerships with specialized sector agencies to leverage maximum benefits for the project.

The project worked because of successful public-private collaboration at all levels. Participatory decision-making and technical piloting and validation methodologies work well for projects of this type, especially given the need to build long-term grass roots commitment to core ecological principles, and to establish relationships between rural people on the environmental front lines and responsible environmental agencies/stakeholders.

8.2 Briefly describe the recommendations given in the terminal evaluation.

From the lessons learned described in the TE, the following recommendations may be drawn:

- Timeliness of project preparation and implementation is important.
- Project partners with limited international experience require particular attention and support/training.
- Project supervision requirements are similar for both large and small projects, thus planning and budgeting should take these necessities into account.
- Efficiency is enhanced when the Technical Coordination office is located close to the field activities and executing agencies.
- Participatory decision-making is particularly important when there is a need to establish relationships between rural people on the environmental front lines and responsible environmental agencies/stakeholders.

9. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	**GEF EO comments**	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The TE lists the expected project outcomes, and describes in detail their achievement.	**HS**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The TE is internally consistent and ratings are well substantiated. However, the TE does not present all the evidence and information necessary, thus the TER reviewer needed to refer to other documents to complete this review, particularly in the M&E section, Country Ownership section, and the Project Implementation and Execution section.	**MS**
To what extent does the report properly assess project sustainability and/or project exit strategy?	The TE does address project sustainability, although more context and information would have been beneficial.	**S**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	The lessons learned are comprehensive and supported by the evidence contained in the TE report.	**HS**

Does the report include the actual project costs (total and per activity) and actual co-financing used?	Information on co-financing was not explicitly provided. Annex D provided information on project costs (not mentioned in the main section of the TE).	**MU**
Assess the quality of the report's evaluation of project M&E systems:	Although M&S systems are listed as a major expected outcome, there is only one paragraph in the TE describing their implementation, results, shortcomings, etc. For supplemental information, the TER reviewer used additional documents, and concluded that the importance given to the M&E components decreased throughout project implementation, and was not adequately addressed in the TE.	**MS**
Overall TE Rating		**S**

0.3 × (a + b) + 0.1 × (c + d + e + f)

0.3 × (6 + 4) + 0.1 × (5 + 6 + 3 + 4) = 4.8 = S

10. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

This TER was completed using:

- Project Implementation Report of 2010
- Project Document for CEO Approval (2002)