

GEF EO Terminal Evaluation Review Form

1. PROJECT DATA				
			Review date:	February 2011
GEF Project ID:	974 FSP		at endorsement (Million US\$)	at completion (Million US\$)
IA/EA Project ID:	P068121 (WB)	GEF financing:	13,400,000	13,350,000
Project Name:	Environmental Protection and Sustainable Development of the Guarani Aquifer System (GAS) Project	IA/EA own:	100,000	290,000
Country:	Regional: Argentina, Brazil, Paraguay, Uruguay	Government:	11,990,000	15,320,000
		Other*:	1,270,000	2,610,000
		Total Cofinancing:	13,360,000	18,220,000
Operational Program:	OP#8 Waterbody-Based	Total Project Cost:	26,760,000	31,570,000
IA:	World Bank	<u>Dates</u>		
Partners involved:	Organization of American States (OAS)	Effectiveness/ Prodoc Signature (i.e. date project began)		April 2002
		Closing Date	Proposed: March 2007	Actual: January 2009
TER Prepared by:	TER peer reviewed by:	Duration between effectiveness date and original closing (in months): 49 months	Duration between effectiveness date and actual closing (in months): 72 months	Difference between original and actual closing (in months): 23 months
Authors of TE:	Douglas C. Olson and Samuel Taffesse	TE completion date: July 2009	TE submission date to GEF EO: August 2010	Difference between TE completion and submission date (in months): 13 months

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

2. SUMMARY OF PROJECT RATINGS AND KEY FINDINGS

Please refer to document GEF Office of Evaluation Guidelines for terminal evaluation reviews for further definitions of the ratings.

Performance Dimension	Last PIR	IA Terminal Evaluation	IA Evaluation Office evaluations or reviews	GEF EO
2.1a Project outcomes	S	S	MS	MS
2.1b Sustainability of Outcomes	N/A	L	MU	ML
2.1c Monitoring and evaluation	MS	S	Substantial	S
2.1d Quality of implementation and Execution	N/A	N/A	S	S
2.1e Quality of the evaluation report	N/A	N/A	S	S

2.2 Should the terminal evaluation report for this project be considered a good practice? Why?

Yes, the Terminal Evaluation (TE), which in this case refers to the Implementation Completion and Results (ICR) Report, should be considered a good practice:

- The ICR is a sound and comprehensive document.
- As the Independent Evaluation Group (IEG) Review already noted, the ICR's sometimes repetitious aspect does not diminish either the excellence of its annexes or the OAS's valuable and insightful contribution on project achievements.

2.3 Are there any evaluation findings that require follow-up, such as corruption, reallocation of GEF funds, mismanagement, etc.?

No such findings were noted.

3. PROJECT OBJECTIVES

3.1 Project Objectives

a. What were the Global Environmental Objectives of the project? Were there any changes during implementation?

According to the project appraisal document (PAD) submitted for CEO Endorsement:

- "The long-term objective is the sustainable, integrated management and use of the Guarani Aquifer System. The Guarani Aquifer System is situated in the eastern and south central portions of South America, and underlies parts of Argentina, Brazil, Paraguay, and Uruguay. This project is a first step toward achieving the long-term objective. It is *to support the four countries in jointly elaborating and implementing a common institutional and technical framework* for managing and preserving the Guarani Aquifer System for current and future generations."

According to the TE, the PDO per se was not revised, but a revision of the main beneficiaries has been done:

- The original and revised beneficiaries had been briefly described as the "primary target group" in the PAD and as captured in the GEO, as well as any other individuals and organizations expected to benefit from the project.
- "The targeted Project beneficiaries were the 92 million people living in the Guarani region. In addition, the beneficiaries include public and private institutions (mainly water agencies, authorities and water user organizations), Non-Governmental Organizations (NGOs), civil society organizations, universities, professionals in the field and policy makers at all levels. These individuals and entities will benefit from increased knowledge, better sharing of information and reduced conflict in relation to a strategic resource that potentially will provide: (i) a sustainable supply of safe water for human populations; (ii) high-quality water for industry; and (iii) a sustainable supply of thermal water for tourism, industrial and municipal uses."

Also, the IEG noticed two "slightly differing formulations" of project objective in the agreements by the Bank as implementing agency for the GEF Grant. However, these differing formulations might seem irrelevant in practical terms, as follows:

- The GEF Trust Fund Agreement states: "The purpose of the Grant is to assist in the preparation of the Environmental Protection and Sustainable Integrated Management of the Guarani Aquifer Project, the main objective of which is to support the Members in the joint elaboration and implementation of a common institutional framework for managing and preserving the Guarani Aquifer (the Aquifer)."
- The Grant Agreement between the IBRD and the Organization of American States (OAS, which executed the project) was: "The objective of the Project is to support the Beneficiaries to jointly elaborate and implement a common institutional and technical framework for the management and preservation of the Guarani Aquifer System (GAS)."

b. What were the Development Objectives of the project? Were there any changes during implementation? (describe and insert tick in appropriate box below, if yes at what level was the change approved (GEFSEC, IA or EA)?)

According to the PAD submitted for CEO Endorsement, in order to provide such support, seven project components were envisaged:

- (i) expansion and consolidation of the current scientific and technical knowledge base regarding the Guarani Aquifer System; (ii) joint development and implementation of a Guarani Aquifer System Management Framework, based upon an agreed Strategic Program of Action; (iii) enhancement of public and stakeholder participation, social communication and environmental education; (iv) evaluation and monitoring of the project and dissemination of project results; (v) development of regionally-appropriate groundwater

management and mitigation measures in identified “Hot Spots”; (vi) consideration of the potential to utilize the Guarani Aquifer System’s “clean” geothermal energy; and, (vii) project coordination and management.				
There is no mention of changes during implementation in either the TE or the IEG Report.				
Overall Environmental Objectives	Project Development Objectives	Project Components	Any other (specify)	
			Main beneficiaries, as explained above	
c. If yes, tick applicable reasons for the change (in global environmental objectives and/or development objectives)				
Original objectives not sufficiently articulated	Exogenous conditions changed, due to which a change in objectives was needed	Project was restructured because original objectives were over ambitious	Project was restructured because of lack of progress	Any other (specify)
				To clarify the broadness of beneficiaries.

4. GEF EVALUATION OFFICE ASSESSMENT OF OUTCOMES AND SUSTAINABILITY

4.1.1 Outcomes (Relevance can receive either a satisfactory rating or a unsatisfactory rating. For effectiveness and cost efficiency a six point scale 6= HS to 1 = HU will be used)

a. Relevance	Rating: 5
<p>Satisfactory:</p> <ul style="list-style-type: none"> The project is indeed relevant to the issues of integrated-transboundary groundwater resource management between the four countries – Argentina, Brazil, Paraguay and Uruguay – because it constitutes “a strategic reserve for water supply in the face of increasing scarcity and pollution of surface water sources.” In spite of such importance, there was only a limited knowledge about its extent, levels of extraction, recharge and discharge, vulnerability to pollution and contamination, as well as about the social, economic and political impact that such an important transboundary resource could generate during an occasional situation of crisis. The project is in conformity with the GEF International Waters focal area, having pioneered a preventive intervention to support the future management of the Guarani Aquifer System (GAS), and also a multi-country water management undertaking for the GEF together with the Bank. Although detailed and comprehensive knowledge covering the whole system was not readily available, the IEG Report already noted that these aspects did not compromise the overall satisfactory relevance of the project’s outcomes. 	
b. Effectiveness	Rating: 4
<p>Moderately Satisfactory:</p> <ul style="list-style-type: none"> As a preventive project, the key performance indicators basically targeted the reduction of future risks, having diminished pollution risks, overdraft risks, as well as having reduced risks of future inter-country groundwater conflicts and future mitigation and stabilization costs. Therefore, its outcomes are commensurate with the expected PAD outcomes. Although this project has laid the groundwork for transboundary water management, given the significant delays noted by the IEG, effectiveness should be rated moderately satisfactory rather than satisfactory. 	
c. Efficiency (cost-effectiveness)	Rating: 4
<p>Moderately Satisfactory:</p> <ul style="list-style-type: none"> The IEG considered efficiency a non-applicable criterion, arguing that “no efficiency estimates were made at either appraisal or completion” because “the non-quantified benefits derived from the project were both national and global, and stemmed mainly from the avoidance of the future costs of aquifer mismanagement that could have included inter-country conflict, resource depletion and increased pollution. However, the project took nearly two years longer to complete and cost nearly 20% more than foreseen. Therefore, project’s efficiency should be rated as moderately satisfactory. 	

4.2 Likelihood of sustainability. Using the following sustainability criteria, include an assessment of **risks** to sustainability of project outcomes and impacts based on the information presented in the TE. Use a four point scale (4= Likely (no or negligible risk); 3= Moderately Likely (low risk); 2= Moderately Unlikely (substantial risks) to 1= Unlikely (High risk)). The ratings should be given taking into account both the probability of a risk materializing and the anticipated magnitude of its effect on the continuance of project benefits.

a. Financial resources	Rating: 3
<p>Moderately Likely:</p> <ul style="list-style-type: none"> • According to the ICR, the Project created the mechanisms for future management of the resource at all levels, and the countries have agreed to continue to finance it. It was also mentioned in the ICR that, during Project execution, “counterpart financing reached 127% of the appraisal estimate”, which clearly demonstrated the wide support and local ownership that the countries attached to this project. • Although larger costs than planned (18%) were covered by several involved actors, which demonstrate a joint commitment from all, significant delays were observed in the provision of additional funding. Considering these shortcomings, but highlighting the creation of management mechanisms and the countries commitment to the cause, the project’s financial sustainability is then rated as moderately likely. 	
b. Socio political	Rating: 4
<p>Likely:</p> <ul style="list-style-type: none"> • The project involved a wide array of governmental agencies and NGOs through participatory mechanisms, including indigenous people (after whom the Aquifer was named – the Guarani). • According to the IEG, support for the Project continues at regional, national and local levels from both governments and NGOs. Although GAS management has essentially devolved to the level of the individual countries, interest and enthusiasm are high, and the countries are maintaining and strengthening their cooperation and coordination. Therefore, the project’s socio-political sustainability is rated as likely. 	
c. Institutional framework and governance	Rating: 3
<p>Moderately Likely:</p> <ul style="list-style-type: none"> • Initially expected risks referring to uncertainties in the creation of a joint management framework for the GAS were apparently dismissed. • According to the ICM, “Because of the lack of an existing institutional framework, Project design needed to put in place a complete framework including Steering Committee (SC), National Project Execution Units (NPEU) and the Project Secretariat (PS). This institutional framework and the mechanisms adopted proved to be highly successful and played a critical role in Project implementation. [...] The Project was designed as the first stage of a long-term programmatic intervention in the management of the GAS. At the end of Project implementation, the four countries decided that the institutional mechanisms (SC, NPEU, PS and local entities) established during Project preparation and enhanced during implementation will continue to operate in the future. The management of the GAS will be the responsibility of the line agencies in each country especially at local level.” • Also, “The recently modified or adopted different water regulations, decrees and laws of each country recognized the importance that the countries have now attached to GW management and its sustainable use.” These regulations constitute an important regulatory achievement. • As noted by the IEG, there is indeed a moderate risk that the framework and mechanisms agreed to in the Strategic Action Program may not be implemented in a timely and adequate manner and with sufficient funding. This could risk the whole sustainability, but this risk is only moderate since regulatory standards have been accomplished – even if with delays and higher costs than foreseen. Despite the regulatory achievements, the lack of consistent and strong institutional framework – such as a unified agency (stronger than the PS in Montevideo) between the four countries aimed at dealing exclusively with GAS issues – weakens the GAS institutional framework sustainability, which is then rated moderately likely. 	
d. Environmental	Rating: 4
<p>Likely:</p> <ul style="list-style-type: none"> • Among the factors through which sustainability has become likely, the Project had, as mentioned in the ICR, an important role in improving the knowledge base; developing and adopting manuals for well drilling and protection, developing groundwater models that will aide decision-making for sustainable management and use of the aquifer; defining criteria in the pilot areas for land use and solid waste management to protect the aquifer from contamination; providing information and guidance for locating and protecting wells in the pilot areas where they will reduce overexploitation and reduce the risk of contamination; and establishing the 	

<p>extent of sustainable geothermal water use. These achievements are significant and allow for some likelihood of sustainability.</p> <ul style="list-style-type: none"> • As explained in the ICR, sustainability has also become likely by identifying alternative use of geothermal water, formulating and adopting guidelines to control the potential for overexploitation; sensitizing the local users and authorities on the need for recycling water after geothermal use; playing a catalytic role in the establishment of common standards between neighboring transboundary localities; and defining the minimum distance required between wells. • Therefore, the Project contributed to significant improvements in environmental management of the GAS, which increases the likelihood of its environmental sustainability and is supported by the regulatory, socio-political and financial achievements.

4.3 Assessment of processes and factors affecting attainment of project outcomes and sustainability.

<p>a. Co-financing. To what extent was the reported cofinancing (or proposed cofinancing) essential to achievement of GEF objectives? Were components supported by cofinancing well integrated into the project? 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 it did, then in what ways and through what causal linkages?</p>
<p>With regard to cofinancing calculations, comments by the ICR and the IEG are self-explanatory:</p> <ul style="list-style-type: none"> • According to the ICR, “the project success to a large extent was a factor of the continuous commitment of the participating countries” which have been essential to achievement of GEF objectives. • The cofinancing supported activities were well integrated in the project as they supported project activities across the board and, as mentioned in the PAD, “the demand for this project originated in the countries.” • As explained in the IEG, “total project costs were 18% more than planned at appraisal primarily because (a) studies and exploration to expand the knowledge base were 61% more than planned and (b) project coordination and management was 33% more than planned. These increases were partly offset by reduced disbursement on development of a joint management framework (component 2) and on monitoring and evaluation (component 4).”
<p>b. 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 it did, then in what ways and through what causal linkages?</p>
<p>Significant delays constituted one of the main problems of the project:</p> <ul style="list-style-type: none"> • According to the IEG, in March 2007 the project closing date was extended for 22 months. Among the reasons for the delay, the ICR and the Project Team in subsequent discussions cited “(i) the large geographic area to be covered; (ii) lack of capable firms to undertake the studies; (iii) the need for exhaustive and detailed work to address the rudimentary knowledge base available on the GAS; (iv) extended procurement arrangements and clearances involving four countries; (v) the need to address initial negative perceptions of the project among NGOs and others; (vi) the time required to harmonize OAS and Bank procedures and guidelines; (vii) fulfilling the GEF requirement of wide consensus building at various levels; and (viii) the large number of institutions involved in the project.” Even though delays were noticeable, they seem to have <i>not</i> affected either the project’s outcomes or its sustainability.
<p>c. 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.</p>
<p>Country ownership was a significantly influential topic in this particular project:</p> <ul style="list-style-type: none"> • According to the ICR, the four countries – Argentina, Brazil, Paraguay, Uruguay – needed to demonstrate to their citizens that the involvement of international institutions in the project would not affect their sovereignty over the Aquifer. The governments played a key role in demonstrating that they remained having the right to the sustainable use and management of the GAS; therefore, it was rational for them not to request additional funding from the GEF or any other international organization in support of they have considered their own duties regarding coordination activities. • As analyzes the IEG, although the Bank initially was behind the idea to prepare a follow-up project, the team quickly dropped the idea once it was learned that the GAS is basically in a very good condition and that the countries have assumed full ownership of the continuing regional cooperation framework. • According to the ICR, the project “was exemplary in its design of participation mechanisms that allowed for the involvement of learning institutions, NGOs, civil society organizations, public institutions at all levels and the public at large in all phases of the project including consultation, implementation of project activities and representation in local management.” Additionally, the evaluation report done as part of Project closing

by the Organization of American States (OAS) indicated that in one of the workshops conducted during preparation more than 100 people participated representing a wide array of institutions of the four countries.

4.4 Assessment of the project's monitoring and evaluation system based on the information in the TE

a. M&E design at Entry Rating (six point scale): 5

Satisfactory:

- Concerning design at entry, the ICR had already noted that the PAD recognized the importance of M&E given the decentralized nature of Project activities. It also foresaw the establishment of an Operational Monitoring and Evaluation System. Also an M&E team and system was put in place within the Project Secretariat.
- The IEG noted that there was substantial attention to all aspects of M&E at appraisal, and the PAD included a special Annex 18 describing the objectives of M&E, system structure, M&E activities and a long list of indicators including those relevant to tracking compliance with GEF's IW (process, stress reduction, and environmental status), as well as those required to monitor inputs and outputs. Furthermore, this was supplemented by the traditional logical framework in Annex 1 of the PAD.
- Detailed design of the M&E system was supported by the GEF Grant under component 4 (US\$0.48 million or 1.8% of total Project cost). The aim of this component was to create and implement a system for recording and analyzing progress achieved during the project implementation period. "Two subcomponents were identified under this component: (i) Development and implementation of a monitoring, evaluation and feedback system; and (ii) Dissemination of Project results throughout the region and beyond."
- Considering that the plan paid substantial attention to all aspects of M&E, through a sound plan to monitor results and track progress towards achieving project objectives, M&E at entry is rated as satisfactory.

b. M&E plan Implementation Rating (six point scale): 5

Satisfactory:

- According to the ICR, the Logical Framework was updated, during implementation, following the Results Framework that introduced a temporal element into the M&E process. "The updated Results Framework served project supervision well at each stage of Project implementation – such as progress in the wells inventory, number of people accessing the website, number of people reached through the awareness building activities, among others. Some progress needed to be measured in terms of percent of advance in implementation, as was done in the preparation of several maps supported under the Project. Periodic reports from the four pilot sites and from other Project activities, including the Citizen Fund and the University Fund, were fed into an M&E system managed by the Project Secretariat."
- "The National Project Executing Units' reports were consolidated and provided in Project progress reports prepared by the Project Secretariat for Steering Committee Project oversight."
- The Oracle-based system of the OAS facilitated the monitoring of financial utilization and commitments and performed satisfactorily for Project supervision and planning.
- Several evaluations were carried out in conjunction with the Mid-Term Review and with preparation of the transboundary diagnostic analysis and the Strategic Action Program. In addition, the OAS contracted an external consultant to do the final evaluation of the Project and the Bank-Netherlands Water Partnership Program supported Technical Assistance to undertake quality control reviews of project outputs.
- As noted in the ICR, as a final product, the Project deployed the GAS Information System (SISAG), with each country having access to the system and an interface to directly update data. This represents a state-of-the-art information system that will be instrumental in future monitoring and management of the aquifer.
- Considering that M&E implementation carried significant procedures to fulfill M&E requirements, especially regarding the systematization of information through the OAS's Oracle-based system, M&E implementation is rated as satisfactory.

4.6 Assessment of Quality of Implementation and Execution

a. Overall Quality of Implementation and Execution (on a six point scale): 5

b. Overall Quality of Implementation – for IA (on a six point scale): 5

Briefly describe and assess performance on issues such as quality of the project design, focus on results, adequacy of supervision inputs and processes, quality of risk management, candor and realism in supervision reporting, and suitability of the chosen executing agencies for project execution.

Satisfactory:

- The ICR provides a thorough analysis of multiple aspects with regard to the quality of implementation. The ICR remarks are solid and allow for endorsing a satisfactory rating.
- Project design: Notwithstanding the lack of Bank operational experience in multi-country groundwater management, “good use was made of proven practices in aquifer management as well as GEF IW focal area experiences in designing the Project. The Project was exemplary in its design of participation mechanisms that allowed for the involvement of learning institutions, NGOs, civil society organizations, public institutions at all levels and the public at large in all phases of the Project including consultation, implementation of Project activities and representation in local management.” Because of the lack of an existing institutional framework, Project design needed to put in place a complete framework including Steering Committee, National Project Execution Units and the Project Secretariat. This institutional framework and the mechanisms adopted proved to be highly successful and played a critical role in Project implementation.
- Focus on results: The Mid-Term Review (i) confirmed the relevance of the Project objective and that it should remain unchanged; (ii) proposed to extend the Project closing date and thus revise disbursement estimates; (iii) accepted the need to strengthen the PS by increasing staffing and expanding office facilities; and (iv) recommended to deepen the activities of the Project in the four pilot areas through contracting four local champions (facilitators).
- Supervision: As noted by the IEG, the project was thoroughly appraised and considerable attention was given to its institutional and technical design because it was the first Bank project that addressed the management of transboundary groundwater resources. The appraisal team was, however, too optimistic about the time needed to implement such a complex project. Despite having 3 Task Team Leaders, supervision provided coherent support and guidance to the implementing agencies and collaborated well with development partners. It was assiduous in bringing the Bank's convening power and resources to bear at high diplomatic levels to mitigate and reverse adverse public opinion about the project.
- Risk management: At entry, the design also identified an important set of risks and corresponding mitigation measures. One of the substantial risks that became relevant during implementation was “Project-supported research and analysis of the aquifer are not carried out in a timely manner, leading to delays in providing critical inputs to the SAP.” Through the extension of the closing date this risk was addressed. During implementation, it was noticed a moderate risk that the framework and mechanisms agreed to in the SAP may not be implemented in a timely and adequate manner and with sufficient funding.
- Supervision Reporting: The report is a comprehensive document, with thorough and clear analyses. Although the IEG has commented that it was at times repetitious, but also underlined the excellence of the annexes. The IEG has also commented on the valuable and insightful contribution added by the OAS on project achievements. The IEG has also recognized that the OAS had a comparative advantage in specific areas of managing a multi-country project in LAC was both realistic and pragmatic and proved to be successful.
- Suitability of the chosen executing agency for project execution: The IEG reported that some time was initially needed to harmonize procedural differences between the OAS and the Bank especially in contract signing and procurement rules, among others.
- Concerning quality-at-entry, the IEG noted that “the project was thoroughly appraised and considerable attention was given to its institutional and technical design because it was the first Bank project that addressed the management of transboundary groundwater resources.” Also, “despite having 3 TTLs, supervision provided coherent support and guidance to the implementing agencies and collaborated well with development partners. It was assiduous in bringing the public opinion about the project.” It also brought new perspectives to the pilot projects “to build local knowledge and support”. The Overall Quality of Performance of the Implementing Agency, the World Bank, is rated as satisfactory.

c. Quality of Execution – for Executing Agencies¹ (rating on a 6 point scale): 5

Briefly describe and assess performance on issues such as focus on results, adequacy of management inputs and processes, quality of risk management, and candor and realism in reporting by the executive agency.

Satisfactory:

- Regarding Governments: According to the comprehensive analysis provided by the IEG, “the four country

¹ Executing Agencies for this section would mean those agencies that are executing the project in the field. For any given project this will exclude Executing Agencies that are implementing the project under expanded opportunities – for projects approved under the expanded opportunities procedure the respective executing agency will be treated as an implementing agency.

governments were represented through the Steering Committee (SC) that strongly supported the project and remained neutral to some bilateral water issues, including adverse publicity, that could have made the SC ineffective at coordination. The SC approved annual plans on time, successfully facilitated counterpart contributions by each country and oversaw the technical direction. As the Project closing approached, the SC proactively established a Working Group to study and recommend transition mechanisms, the financing of future activities, cooperation arrangements, and the division of responsibilities. Counterpart financing reached 127% of the appraisal estimate and clearly demonstrated governments' wide support and ownership. There were, however, some variations in performance among the four Governments. The Bank and OAS differed in their assessment of the degree of completion and readiness of enabling institutional arrangements at the regional level at project closure, with the OAS assessing that these were only partially in place."

- Regarding the Executing Agency: According to the IEG, "the OAS successfully coordinated multi-country project inputs and activities and worked with the different donors supporting the project. The OAS partnered with the Bank in harmonizing the two institutions' procedures in financial management, contract awards and applicable operational guidelines and rules. It was particularly successful in maintaining an equitable staffing from the four countries and managing the internship and twinning programs. OAS's experience in international water greatly facilitated the preparation of transboundary diagnostic analysis and Strategic Action Program (SAP). The OAS Argentina Office Chief, who was responsible for Project implementation coordination, was instrumental in ensuring the SAP preparation reflected the relevant knowledge generated from the vast information collected and that it focuses on practical actionable items.
- Considering the committed performance of governments and executing agencies in execution, the overall quality is rated as satisfactory.

5. PROGRESS TOWARDS IMPACT

a. What is the outlined outcomes-to-impact pathway?
 Briefly describe the logical sequence of means-to-end linkages underlying a project (Outcome to impact pathways are the means-ends relationships between project outcomes and the intended impacts – i.e. the logical results chain of activity, output, outcome and impact)

Activities	Outputs	Outcomes	Intermediary States	Impacts
<p>To Formulate a solid, scientific and technical knowledge base on the GAS through conduction of research, elaboration of manuals, training of people</p> <p>To Analyze the potential to utilize the GAS's clean geothermal energy</p> <p>To Legislate guidelines to control the potential for overexploitation</p> <p>To Involve stakeholders through participatory mechanisms and media campaigns</p> <p>To Identify mitigation measures to be adopted in "Hot Spots" of the GAS</p>	<p>Increased awareness of strategic importance of the GAS</p> <p>Socio-political and cultural engagement, as well as regional valuation of a shared resource</p> <p>Social commitment in participating countries</p> <p>Financial Incentives</p>	<p>Halted overexploitation of the GAS</p> <p>Strengthened Institutionalization of the GAS: Steering Committee, National Project Execution Units and the Project Secretariat</p> <p>Regulation: Adoption of guidelines to control the potential overexploitation and avoid mismanagement</p> <p>Increased Cost in Land at GAS areas (Unexpected)</p>	<p>Definitive institutionalization of the GAS through the foundation of an inter-country Agency</p>	<p>Sustainable, integrated, regulated management and use of the GAS through the existing institutions were achieved impacts</p> <p>GEB: Non-quantified benefits derived from avoiding future costs of GAS mismanagement, such as inter-country conflict, resource depletion and pollution</p>

b. What are the actual (intended or unintended) impacts of the project?
 Based on the assessment of outcomes [4.1.1] explain to what extent the project contributed to or detracted from the path to project impacts and to *impact drivers* (Impact drivers are the **significant factors** that, if present, are expected to contribute to the ultimate realization of project impacts and that are within the ability of the project to influence

Considering the assessed outcomes and presented impacts, it is inferable from this project that impact drivers were:

- **Ownership:** local population realized the importance of the natural resource at their disposal and developed significant ownership. The aquifer happens to be located in an area where a common market was being developed (from the 1990s to the 2000s), the Common Market of the South (Mercosur), which complemented the local integrationist spirit. By adding a common resource to the countries involved, the Project displayed that there are more than free market as motivation to implement historic ideals of regional integration. Culturally, the aquifer happens to be located exactly in an area where an important indigenous people, the Guaranis, use to live, and whose remaining descendants still do.
- **Strengthened Institutionalization:** Both a consequence and a consequence-driver, the establishment of an institutional framework, including the creation or new water agencies and the strengthening of existing ones.
- **Economic importance (unintended impact):** as soon as the magnitude and importance of the Aquifer was realized by locals, the groundwater resource was even materialized in the consequently soaring prices in the land market.

c. Drawing on the assessment of the likelihood of outcome sustainability[4.2], what are the apparent risks to achieved impacts being sustained and likely impacts being achieved?

Considering the assessed likelihood of outcome sustainability, it is inferable from this project that the apparent risks to impacts was mainly:

- Lack of timely funding might risk the implementation of the framework and governance mechanisms.

d. Evidence of Impact

Question	Yes	No	UA
i. Did the evaluation report on <i>stress reduction</i> ² at the <u>local level</u> (i.e. at the demonstration-pilot level, etc)?		X	
ii. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope ³ of such reductions given the range of concerns targeted by the project.			
iii. Did the evaluation report stress reduction at the broader <u>systemic</u> level?		X	
iv. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of such reductions given the range of concerns targeted by the project.			
v. Did the evaluation report change in the <i>environmental status</i> at the local level (i.e. at the demonstration - pilot level, etc)		X	
vi. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of change given the range of concerns targeted by the project.			
vii. Did the evaluation report change in the environmental status at the broader systemic level?		X	
viii. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of such change given the range of concerns targeted by the project.			
ix. Did the evaluation report change in the socioeconomic status at the local level?	X		
x. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of change given the range of concerns targeted by the project.			
Yes:			
<ul style="list-style-type: none"> • The project has contributed through its direct involvement with local NGOs, universities, civil society organizations, as well as through its development of the Indigenous Peoples Strategy referred in the ICR. • As mentioned before, the project involved a wide array of governmental agencies and NGOs through participatory mechanisms, including indigenous people (after whom the Aquifer was named – the Guarani). According to the IEG, support for the Project continues at regional, national and local levels from both governments and NGOs. Although GAS management has essentially devolved to the level of the individual countries, interest and enthusiasm are high, and the countries are maintaining and strengthening their cooperation and coordination. Therefore, the project’s socio-political sustainability is rated as likely. • An unexpected economic impact, the importance of the area’s vast potable groundwater resource was widely acknowledged by the public and even materialized in the consequently soaring prices in the land market. 			
xi. Did the evaluation report change in the socio-economic status at the systemic	X		

² Stress = Pressure on the environment caused by human activities; Reduction=decrease of this pressure

³ Scope refers to the broadness of results against original objectives,

level?			
<p>xii. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of change given the range of concerns targeted by the project.</p> <p>Yes:</p> <ul style="list-style-type: none"> The GAS has become an integral part of the water agenda in the four countries, which indeed attests the project's positive impact. Country ownership was a significantly influential topic in this particular project: According to the ICR, the four countries – Argentina, Brazil, Paraguay, Uruguay – needed to demonstrate to their citizens that the involvement of international institutions in the project would not affect their sovereignty over the Aquifer. The governments played a key role in demonstrating that they remained having the right to the sustainable use and management of the GAS; therefore, it was rational for them not to request additional funding from the GEF or any other international organization in support of their own coordination activities. According to the ICR, the project “was exemplary in its design of participation mechanisms that allowed for the involvement of learning institutions, NGOs, civil society organizations, public institutions at all levels and the public at large in all phases of the project including consultation, implementation of project activities and representation in local management.” The evaluation report done as part of Project closing by the Organization of American States (OAS) indicated that in one of the workshops conducted during preparation more than 100 people participated representing a wide array of institutions of the four countries. 			
<p>xiii. Did the evaluation provide evidence of any negative impacts (on drivers toward the projects intended impact, environmental status, socioeconomic status)? Describe the impacts that were documented and how severe were these impacts?</p> <p>No negative impacts were noted.</p>			
e. Monitoring of impacts			
i. Are arrangements/institutions in place to monitor stress reduction/improvement in the environment and/or socio-economic conditions at the local level after project completion?			X
ii. Are arrangements/institutions in place to monitor stress reduction/improvement in the environment and/or socio-economic conditions at the systemic level after project completion?	X		

6. LESSONS AND RECOMMENDATIONS

Assess the project lessons and recommendations as described in the TE

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

The key lessons, good practices and approaches provided by the ICR were fused with its recommendations (referred to as lessons learned project-specific and of wide general application). Following the highlights of the IEG Report, the lessons learned are:

- This project showed that it is often difficult and time consuming to reach consensus and move forward, a task made more difficult by fragmented responsibilities and differing institutional approaches in each country.
- The success of such frameworks is highly dependent on the unbiased selection of staff and good governance at all levels and their willingness to put the common good above national interests.
- Only thus can trust in the objectivity of the framework be established at country level. Once the riparian countries of the Guarani aquifer realized the importance of the project's outputs to their work, they shared scientific and technical information and actively participated in developing management approaches.
- Using NGOs, civil society organizations and learning institutions (especially those which have a presence at the local level) for awareness building is effective because it leverages their local credibility and specialized knowledge to support project development objectives.
- This project highlights the importance of planning and coordinating surface and ground water development within a comprehensive socio-economic framework that includes the views and input from civil society and indigenous peoples.
- However this lesson was only possible after a systematic assessment of water resources and their inter-reaction, and the risks posed by development proposals had been thoroughly completed, and after mechanisms were put in place to enable riparian stakeholders to reach a consensus.

b. Briefly describe the recommendations given in the terminal evaluation

The main recommendations given in the TE, following the highlights of the IEG Report:

- Regional projects tend to be administratively complex and considerable attention has to be given to project scheduling and coordination.
- In the absence of any other existing regional framework, regional projects have to set up their own project implementation framework.
- A regional project has to continuously engage national line-agency counterparts to maintain the relevance of the project objectives and outcomes to their work programs.
- Regional projects should develop a communication strategy early in project preparation and continuously updated it to reflect the changing circumstances.
- Water sector policies need to be aligned with national and regional development policies.
- Economies of scale and scope do not always require regional action.

7. QUALITY OF THE TERMINAL EVALUATION REPORT

7.1 Comments on the summary of project ratings and terminal evaluation findings based on other information sources such as GEF EO field visits, other evaluations, etc.

With regard to the Independent Evaluation Group (IEG) Review:

- The information gathered by is very thorough and objective, presenting the main findings with regard to the evaluation of whole project.
- The IEG agrees with most of the ratings of the ICR Report, but downgrades its likelihood of sustainability (risk to development outcome) from negligible-to-low to moderate, arguing that the framework and mechanisms agreed to in the SAP may not be implemented in a timely and adequate manner and with sufficient funding.
- The IEG also downgrades the outcome from satisfactory to moderately satisfactory, given the significant delays and higher costs than foreseen.

Provide a number rating 1-6 to each criteria based on: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, and Highly Unsatisfactory = 1. Please refer to document GEF Office of Evaluation Guidelines for terminal evaluations review for further definitions of the ratings. Please briefly explain each rating.

7.2 Quality of the terminal evaluation report	Ratings
a. To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	5
b. To what extent the report is internally consistent, the evidence is complete/convincing and the IA ratings have been substantiated? Are there any major evidence gaps?	5
c. To what extent does the report properly assess project sustainability and /or a project exit strategy? Although most information concerning sustainability might be inferred from an attentive review of the TE, only the IEG Report provides a complementary analysis of socio-political and institutional sustainability.	4
d. To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	5
e. Does the report include the actual project costs (total and per activity) and actual co-financing used?	5
f. Assess the quality of the reports evaluation of project M&E systems?	5

8. SOURCES OF INFORMATION FOR THE PRERATATION OF THE TERMINAL EVALUATION REVIEW REPORT EXCLUDING PIRs, TERMINAL EVALUATIONS, PAD.

IEG Review

