



Secretaría del Ambiente

## **A Framework for Sustainable Conservation Practices in the Guarani Aquifer of Paraguay**

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## **PRESENTATION**

The Secretaría del Ambiente from Paraguay (SEAM) and NatureServe has been coordinating a joint initiative regarding the implementation of environmental policy in the Guaraní Aquifer region. The result of this challenge was to gain more knowledge about the current status of biodiversity conservation, and the implementation of environmental policy opportunities resulting from the decentralization of the environmental decision making framework from the SEAM to the Departmental and Municipality level.


It is our honor to introduce this study of “A Framework for Sustainable Conservation Practices in the Guaraní Aquifer of Paraguay” as a valuable assessment of our current decision-making processes in the effective practices towards the conservation of biodiversity and forest ecological systems, and the sustainable use of natural and water resources in this remarkable region.

Ing. Alfredo Molinas  
Executive Secretary-Minister  
Secretaría del Ambiente – SEAM  
Paraguay

## PRESENTACION

La Secretaría del Ambiente del Paraguay (SEAM) y la organización NatureServe han coordinado esfuerzos institucionales para desarrollar una iniciativa sin precedentes en el complejo análisis de oportunidades de implementación de políticas ambientales en la región del acuífero Guaraní. El resultado de este importante desafío es sin duda el inicio de un proceso de mayor conocimiento sobre la problemática de la conservación de la biodiversidad en el actual proceso de descentralización de la gestión ambiental de la Secretaría a nivel Departamental y Municipal.

Es para esta Secretaría un honor presentar a su consideración el análisis y la síntesis de este proyecto que coadyuvará los procesos de toma de decisiones en las prácticas de uso de los recursos naturales y del Sistema Acuífero Guaraní en particular, para la conservación de la biodiversidad, de los ecosistemas y la preservación de los recursos de agua.



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## **Abstract**

The implementation of environmental policy in the decentralization process of the environmental administration in the Eastern region of Paraguay is quite complex. Local attitudes towards biodiversity conservation and sustainable use of natural resources are influenced by social, economic and legal variables, especially those related to the Guaraní Aquifer system (SAG).

This study demonstrates the relationship between the three main environmental policy guidelines from the environmental decentralization process with the biodiversity conservation conditions at the departmental and municipal levels. The results indicate conditions are generally favorable for the implementation of the Land Use Planning policy, Environmental Quality Control policy, and the Environmental Impact Assessment policy.

This assessment was applied to 109 municipalities from the Departments of Amambay, Canindeyú, Caaguazú, Guairá, Caazapá, Alto Paraná, and Itapúa in the eastern region of Paraguay. The relationship between the legal, social and economic conditions and biodiversity conservation, including CITES endangered species and pressure on forestry ecosystems, is significant.

The results suggest new sustainable conservation practices and environmental policy is still needed. To achieve comprehensive sustainable development within the SAG region, we recommend applying conservation practices such as: creation of new protected areas; consolidation of current management plans of protected areas; promotion and dissemination of the SAG throughout environmental education initiatives; establishment of new biodiversity conservation priority areas; social investment; and financial investment in conservation to protect ecosystems and endangered species.