

# TOWARDS THE SUSTAINABLE MANAGEMENT OF THE GUARANI WATER SYSTEM IN THE ARGENTINE REPUBLIC

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## ABSTRACT

This investigation is intended to summarize the relevant institutional and legal aspects related to the environmental protection and to the sustainable development of the Guarani Water System in the Argentine Republic and the present work has been carry out following the qualitative-comparative research method of investigation. At present the institutional and legal frames related to underground water in the Argentine provinces that comprises the SAG, are in general signed by a great number and superposition of legislations and organisms that manage the mentioned resource. The depicted situation risks the elaboration and consequently implementation of an appropriate model of sustainable management applicable to the SAG in the Argentine Republic. Consequently, the following points must be emphasized and considered as relevant axes regarding the environmental protection and sustainable development of the SAG within the territory of the Argentine Republic: 1) The creation of a Unique Water Authority for the Provinces of Santa Fe, Formosa, Misiones and Entre Rios that centralizes the actions of the hydric sector in one single administration; 2) The creation of a Basin Committee formed by all the Argentine Provinces involved in the SGA in order to harmonize and adopt common directions in the matter of environmental ordering of the territory, control System on the development of the anthropic activities, environmental education, economic system of the promotion of the sustainable development, technical norms for the construction of deep wells and systems for the drainage of the waste thermal resources.

**Key words:** management, legislations, protection, sustainable.

## 1. INTRODUCTION

The research summarizes the relevant institutional and legal aspects related to the Environmental Protection and Sustainable Development of the Guarani Aquifer System Project – GASP - in Argentina on behalf Argentina's legal system.

The paper was developed during 2007 and 2008 years as part of the Environmental Protection and Sustainable Development of the Guarani Aquifer System. It was used a qualitative-comparative method that includes the compilation of existing water resources legislation, in addition to a tour and implementation of an institutional questionnaire to the water authorities of Corrientes, Misiones, Entre Rios, Chaco, Formosa and Santa Fe Provinces.

## 2. INSTITUTIONAL AND LEGAL ASPECTS OF THE GAS IN REPUBLICA ARGENTINA .

The institutional and legal frames related to underground water in the Argentina's Provinces that comprises the GAS, are in general signed by a great number and superposition of legislations and organisms that manage the mentioned resource. The depicted situation risks the elaboration and consequently implementation of an appropriate model of sustainable management applicable to the GAS in Argentina as it's mandated on the Article 41 of the National Constitution of Argentina, NCA. The above situation is often repeated all along the national territory and this motivated the initiative launched by the Secretary of Water Resources, national authority on water, which led to the signing of the "Federal Water Agreement" of September 17, 2003, through which were agreed to the "Guiding Principles of Water Policy in Argentina", hereinafter referred as PRPH.

Basically the PRPH report indicates the significance of water for the Argentina, they are utilized as an engine of the sustainable development, foster the creation of a Unique Water Authority in each

jurisdiction, and intends to establish the principle legislative centralization and stress the importance of relying on water management unit of the hydrological cycle.

Argentina is politically organized under a federal system under which various levels of government coexist: the National State, the Provinces, Municipalities and the Autonomous City of Buenos Aires, Articles 1 and 129 CNA (Iza and Rovere, 2006). The National Constitution itself has distributed the powers to legislate from the National State, Provinces, Municipalities and the Autonomous City of Buenos Aires under the provisions of Articles 5, 41, 121, 123, 124 and 129 NCA and stressed that among the subjects not delegated by the Provinces to the National Government is the ownership of water resources. In this sense it is understood that sustainable water management requires a functional reorganization of the responsibilities assumed by the various institutions as well as a deep adaptation of existing legislation as mandated by Article 41 of NCA, its regulations and directives prescribed by the PRPH.

It's important to remark that Article 41 of NCA, guarantees the right to a healthy and balanced environment for all inhabitants of the country and imposes on them the duty to preserve it. Also the authorities have the obligation to provide the protection of that right, the rational use of natural resources, preservation of natural heritage, cultural and biological diversity, and environmental information and education. The Article 41 CNA since 1994 establishes the paradigm of sustainable development and therefore the management of water resources in Argentina must be sustainable, as well to protect and preserve them. These are fundamental duties both for authorities and the society.

It's important to remark, that Argentina's legal system, defines sustainable development in the 1st. paragraph of Article 41 NCA: "the needs of actual productive activities have to accomplish without compromising those of future generations" and later, the General Law on Environmental Policy N° 25 675 of 2002 in Article 4 specifies that sustainable development is that where "the economic and social development and exploitation of natural resources must be made through proper management of the environment, so that does not compromise the potential of present and future generations."

In order to plan and implement activities aimed at environmental protection and sustainable development in Argentina's GAS, it's intends of the paper to synthesize the legal framework of the existing water resources in our country. In this regard, it is understood and shared with the majority doctrine that water law is a branch of environmental law and highlight the provisions of law N° 25 675, N° 25 688 and PRPH.

Related to environmental protection and water resources in particular, the N° 25 675 law in it's article 1, sets out the minimum budget to achieve a sustainable and proper management of the environment, preservation and protection of biodiversity and the implementation of sustainable development. Also on it's Article 8 refers that the environmental management tools, must be applied throughout the national territory aimed at implementing sustainable management of water resources and the preservation and protection of themselves. The legal tools are listed below:

- Environmental ordering of the territory.
- Environmental impact assessment.
- Control system on the development of the anthropic activities.
- Environmental education.
- Mechanisms for citizen participation.
- Diagnostic system and environmental information.
- Economic system of the promotion of the sustainable development.

Complementary law N° 25 688 on minimum budgets for environmental management of water in Articles 3 and 4 provides for the creation of basin committees for inter-jurisdictional watershed, this rule is grounded in the 1st. paragraph of Article 125 NCA which said: "The Provinces may enter into partial treaties for purposes of administration of justice, economic interests and work for common benefit, with knowledge of the Federal Congress (...)" and PRPH N° 25.

Under the above context, the following points must be emphasized and considered as relevant axes regarding the environmental protection and sustainable development of the GAS within the territory of the Argentine Republic (Chiesa, 2007);(Chiesa, 2008):

1) The creation of a Unique Water Authority for the Provinces of Santa Fe, Formosa, Misiones and Entre Ríos that centralizes the actions of water resources sector in one unique administration. Under the provisions of PRPH N° 24, the authority must have sufficient self-sufficient institutional and financial support to ensure proper performance of their duties, as well as to implement the water legislation and have the necessary police power for its implementation. Notwithstanding the above, can be seen at the institutional level a trend towards the establishment and consolidation of Unique Water Authority in those jurisdictions.

2) The creation of a Basin Committee conformed by the Argentina's Provinces involved in the GAS in order to harmonize and adopt common policies in the matter of:

- Environmental ordering of the territory.
- Control system on the development of the anthropic activities.
- Environmental education.
- Economic system of the promotion of the sustainable development.
- Technical norms for the construction of deep wells.
- Systems for the drainage of the waste thermal resources.

## CONCLUSIONS

The dominant characteristic at institutional level in Argentina, is the fragmented management of water resources and sector management by numerous agencies, at national, provincial and municipal level. Due to this, the implementation of a Basin Committee would provide a common space to design and initiate actions to implement environmental protection and sustainable development of the GAS in the country.

The existence of regional groups such as COHILI (which includes Corrientes, Entre Ríos and Santa Fe Provinces) and COHINEA (which includes Misiones, Chaco and Formosa Provinces), under the Federal Water Council could provide the necessary institutional support for creation of this Committee.

It is recalled that under current legal system, sustainable management of groundwater should be developed taking into account the economic, social and environmental aspects of the water sector, where the principles of prevention, accountability, sustainability and intergenerational equity should be the pillars of that administration and to thus ensure that productive activities meet present needs without compromising those of future generations as it stipulates the 1st. paragraph of Article 41 CNA.

Finally it is estimated that when the institutions adopt and pay off the loopholes in environmental protection and sustainable development described on the paper, (the government of the country) will be in position to make effective and operational, a rule applicable to the GAS in its capacity as a transboundary aquifer, be it from international law -UN- or right integration -MERCOSUR-.

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