

# **Regional Transboundary Groundwater Management: A Comparative analysis between the European Union and Mercosur Normative System**

*A.C.L.M. Franca<sup>1</sup>*

(1) Assistant Professor (Faculty of Law, Federal University of Paraíba, Brazil) and PhD candidate (Faculty of Law, Geneva University, Switzerland). Email: alessandra@ccj.ufpb.br

## **ABSTRACT**

International Groundwater regulation is a very difficult task. One of the reasons lies in the fact that while the transboundary effects of the actions are evident, one cannot ignore the local nature of many of the cause/effect variables involved. In consideration of this complex scenario, we suggest the need for a multi-dimensional normative system. We propose that contemporary regional models of governance may offer the opportunity to achieve the best balance between localism and universalism in environmental, and as a consequence, water and groundwater normative structure.

I propose a 'systems' approach to compare the EU water regulation structure with MERCOSUR laws and regulations relative to water management in order to observe the goals and failures of MERCOSUR groundwater management concerns, as part of environmental regulation. It is generally recognized that, up to the present, the European Community has constructed the best pattern of regional governance in the world. Concerning the special field of water management, we can find, besides general environmental regulation, a quite complete and structured framework of regulation. Nowadays the European normative structure over water protection is unified by the EU Water Framework Directive – adopted in 2000, which works as a central document and which is related with other specific norms such as the "daughter directive" concerning groundwater protection. The success of the system can be observed to this point in time.

Concerning MERCOSUR initiatives in the area of water protection, we can find many deficiencies. In fact, even if we consider there is a specific item on water resources listed among the thematic areas of the Environmental Framework Agreement, an instrument to implement and monitor water protection is yet to be developed, and the groundwater regulation is still more far from being addressed. Although some valuable documents have been produced, such as the elaboration of an Additional Protocol to the Framework Agreement on Water Resources, not yet adopted, as well as a recently adopted agreement on the Guarani Aquifer, there is a long way before we reach an efficient normative structure in MERCOSUR.

**Key words** groundwater management, water normative system, European Union, Mercosur

## **1. INTRODUCTION**

Environmental protection, water resources included, is one of the factors that play a relevant role in shaping the new world order. However, water regulation is a very difficult task. One of the reasons, common to all environmental regulation, lies in the fact that while the transboundary effects of environmental actions are evident, one cannot ignore the local nature of many of the cause/effect variables involved. In consideration of this complex scenario, we suggest the need for a multi-dimensional normative system. Boisson de Chazournes (2007) has written in support of this position as follows: "le droit international de l'eau est, on le sait, porteur d'un jeu d'émulations et de complémentarité entre des règles d'application universelle et celles empreintes de particularismes. Ces rapports sont la clé de son enrichissement".

Despite recognized importance, international groundwater regulation is still more complicated. The reasons for this had, for a long time, "to do with lack of full understanding or awareness of the characteristics and extent of groundwater, and with the rather embryonic nature of the law in this area, which is in part a consequence of the first reason" (McCaffrey, 1999).

## 2. OBJECTIVES

In consideration of this complex scenario, especially the very bipolar character of the issue and the need for a multi-dimensional normative structure (without entering the controversial theoretical debate concerning the merits of regionalism versus universalism), we propose that contemporary regional models of governance may offer the opportunity to achieve the best balance between localism and universalism in the water and groundwater normative structure.

Phillippe Sands (2003) considers the same over environmental law: “In application of the principle that different environmental standards could be applied to different geopolitical regions, the role of regional organizations is likely to increase significantly. They are frequently able to provide the flexibility needed to accommodate special regional concerns.”

I propose a ‘systems’ approach to compare the EU water regulation structure with MERCOSUR laws and regulations relative to water management in order to observe the goals and failures of Mercosur groundwater management concerns. One cannot deny that the EU and Mercosur have, especially in the environmental and water protection field, the same objectives which make comparative analysis very usable for improving Mercosur regional integration process.

## 3. RESULTS

It is generally recognized that, up to the present, the European Community has constructed the best pattern of regional governance in the world. Concerning environmental policy it is well based on article 174 of the Treaty establishing the European Community and on the Sixth Environment Action Programme. At the special field of water management, we can find, besides this general environmental regulation, the management of natural resources as one of the areas singled out for priority action and, on water, a quite complete and structured framework of regulation.

Nowadays the European normative structure over water protection is unified by the Water Framework Directive (Directive 2000/60/EC) – adopted in 2000 (which replaced a range of directives in the field of water policy), which works as a central document in this field and which is related with other specific and local norms such as the “daughter directive” concerning groundwater protection (Directive 2006/118/EC).

The Environment Action Programmes set the EU role on accomplishing international environmental aspirations. Both the Water Framework Directive and the Groundwater daughter directive embody the concepts of integrated river basin management and set some goals to be achieved sequentially within basin and national levels. Their main objectives are to protect all water, by preventing and controlling pollution. The innovative character of the WFD consists on a new economic component which concerns the difficult problem of internalizing external effects over water and the putting into practice of efficient instruments for water management (Cavagnac and Gouguet, 2008). Moreover, the WFD and the GDD have precise values for water quality determination, criteria to identify upward pollution trends, and specific measures to prevent and control water pollution. (Crowhurst, 2007)

Mercosur environmental governance is weak, starting with the low priority placed on this area in the Treaty of Asunción (Garabello, 2002) and all its historical development (Franca, 2010). After long-time discussion, the Mercosur adopted the Framework Agreement on the Environment of Mercosur which entered into force in June 2004.

Concerning Mercosur initiatives in the area of water protection, we can find many deficiencies. In fact, even if we consider there is a specific item on water resources listed among the thematic areas of the Environmental Framework Agreement, an instrument to implement and monitor water protection is yet to be developed, and the groundwater regulation is still more far from being addressed, even

though some valuable documents have been produced. As so, the elaboration of an Additional Protocol to the Framework Agreement on Water Resources Environmental Management and the recent adoption of an Agreement on the Guarani Aquifer were not even halfway to an efficient water normative structure in Mercosur.

#### 4. CONCLUSION

On the one hand, the success of the EU water normative system can be observed to this point in time: the majority of the essential specific norms at national and basin levels are already in place as well as effective instruments to put the system in practice, even if they are not free of criticism and always have some points that would be improved.

On the other hand, it is fair to conclude that ensuring workable water and groundwater protection is something that Mercosur needs to learn from the EU experience. It is clear that Mercosur member States have experienced difficulty in constructing normative instruments which stand the test of effectiveness.

The Guarani Aquifer agreement illustrates very well Mercosur normative gaps and institutional deficiencies in this field. The adoption of a local instrument without having a general one for all Mercosur water and groundwater resources; the framework language of this particular document without precise values for water quality determination nor criteria to identify upward pollution trends, as well as no specific measure to prevent and control water pollution, are major problems.

But it is not only a question of normative construction, but mainly a matter of governance, of institutional structure and normative enforcement. In the EU, environmental purposes are a business of various institutions and the supranationality of their norms promotes compliance and helps strengthen its institutions. Finally, the central role of European courts leaves no doubt concerning the efficacy of its normative system.

In truth, the absence of effective normative enforcement and the vulnerability of conflict resolution mechanisms within Mercosur only serve to further erode the authority and efficacy of the institution. Still, the terms of the Guarani Aquifer agreement show the erosion on Mercosur institutional structure. The dispute settlement mechanism based on negotiations, specialized commission recommendations, and arbitral procedures without attention to Mercosur judicial organs, as well as the excessive attention given to the sovereignty over natural resources instead of normative harmonization, are just some of the critical reviews that we can do.

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