

## **State of The Art of The Integrated Network for Monitoring Groundwater in Brazil**

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In the year of 2009 the Geological Survey of Brazil - SGB has started the planning a national groundwater monitoring network, called RIMAS, with the participation of specialized staff, researchers, private sector and stakeholder's representatives, in order to delineate the main priorities and strategies of the monitoring. Some questions needed to be discussed, such as, which aquifers should be tapped, how to complete the monitoring wells, which kind of dataloggers should be used and frequencies to groundwater level and chemical analysis measurements. At first, a group of 16 intergranular aquifers were prioritized and 100 wells were drilled and fully equipped. Stepwise, new wells were incorporated until the actual scenario of the RIMAS Network, with around 400 wells being permanently and fully automatically monitored, in 22 federative states of Brazil. Qualitative parameters (in support of the ODS 6.3) are being recorded, besides having more than 100 complementary rain gauging stations. RIMAS is currently in a process of expansion, with another 110 wells are just being contracted. The SGB has highly trained teams based in different headquarters covering the whole national territory resulting in a strong field capillarity. The main objective of the RIMAS is to identify possible impacts on groundwater resources, whether of natural origin (climate changes) or by anthropic actions, seeking the preservation and sustainable use of water. This paper intends to present the RIMAS pointing out the lessons learned and identifying the challenges to be faced, the institutional demands and also the impacts and outcomes of the results.