

Towards common groundwater management - the case of Copiapo in Northern Chile

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In the 1980-1990's, the fruit production industry rapidly developed in Northern regions of Chile. Surface water resources being limited, alluvial aquifers were increasingly tapped and exploited above sustainable limits. This resulted in sustained groundwater level decline, reaching up to 6 meters per years. After a six year drought, the agricultural economy was on the verge of collapse (many wells went dry and some tree plantations were uprooted) and conflicts between farmers, water supply, and mining companies intensified. The paper first analyses the reasons that explain why this crisis could take place while the State theoretically had the regulatory tools to prevent it. We point at limited knowledge of aquifers+ allocation based on foreseeable use+ political lobbying from the farming sector to obtain new water rights after basin closure+ illegal abstraction+ and trade of water rights from seasonal to permanent uses. The paper then presents the water management reform implemented in response to this crisis. The reform relies on 4 pillars- increased supply with desalination+ increased irrigation efficiency+ that GWUAs may decide to shift from a water allocation to a water entitlement regime (water rights expressed in a percentage of the volume available each year instead of a fixed value)+ and the establishment of Ground Water Users' Associations (GWU). This reform faced significant opposition from the main actors attempting to protect short term vested interest+ the paper analyses this opposition using a political economy framework. The establishment of the GWUAs takes place in this context. We describe how one of these associations, CASUB, managed to gain legitimacy and move towards the implementation of the reform. This success can be attributed to its ability to deliver short term benefits to its members- production and dissemination of knowledge of the aquifer+ technical assistance in operating wells and optimizing irrigation+ obtaining public funds to create collective wells in replacement of individual dry wells... After a few years, CASUB has the required internal and external legitimacy to start implementing the water allocation reform.

