

Interview with Francisco Botía

Francisco Botía was the last auctioneer (1964-1966). His father was auctioneer before him, and his grandfather before his grandfather.

Francisco confirmed that each *cuarta* of water corresponds to 3 hours, and that the flow of water was of 40 *liters per second*, with little seasonal variation. They had rules regarding the allocation of water within the 4-unit (four *cuartas*) auction during night. In the cases in which 3 of the 4 *cuarta* were bought by the same farmer (and the remaining *cuarta* by a different farmer), the first unit will be allocated to the single-unit farmer and the 3 remaining to the other farmer, regardless of which unit each farmer bought. This way the guard will have to change the irrigation gates at 12pm and not at 4am.

Unlike Jesús Garcia, Francisco Botia has a different opinion of the auction system. He thinks that the auction system allocated the water efficiently and that people always “got their way” when they wanted to buy water. Nonetheless he confirms that all the payments should be made in cash.

He confirms that there was no centralized credit market, but pointed that “people in the street could do whatever they want”. He also confirms that the biggest shareholder was the Marquis of Pidal, who in turn bought his shares from the Marquis of Los Vélez.

He finally concedes and admits that farmers did not like the auction system. It was not uncommon to read in the newspapers that there has been a fight between farmers during the auction.

He confirms that the *Sindicato* has bought virtually all the shares from the *Heredamiento*. Today, selling water is forbidden, and the punishment is 3 years without irrigating.

He also confirms our concerns about the sunk costs. Moreover, he mentions that non only the channel is dry, so that there is some water loss, but also the channel is dry, which means that the water of the first *cuarta* will sweep along the dirt and fallen branches.

He confirms that there is no reserve price. However, the auctioneer has the authority to stop the auction at any time. But they only stopped the auction when the price drops to almost zero. In those situations they let the water flow down the river.

Interview with Jesús García López

Jesús García López is the actual president of the *Sindicato de Regantes* (Irrigators Association) in Mula. He began working on the *Sindicato* in 1970, when his father was president of the *Sindicato*. His father was the first president of the *Sindicato* and the leader during the transition to the quotas system.

When asked about the auction system he referred to it as: “It was a robbery!” and “[The Waterlords] were bloodsuckers”.

According to him there were liquidity problems, especially during the dry years. There was no organized credit institution. He did not know of any lender, but admit that people might have borrowed from relatives, although he did not remember his father ever borrowing money to bid in the auction. If there were any lender, it will be with very high interest rates (usury), which was illegal under the Spanish Usury Law.

According to him, in the early 1966 began a mobilization of the farmers. The *Sindicato* has been created a few years earlier and in 1966 the *Sindicato* came to an agreement with the *Heredamiento* (Waterlords holding) about buying the water flow at a fixed price. They agreed on a fixed price for Winter (6 months) and a different price for Summer (6 months). The price per *cuarta* (3 hours of irrigation) for the summer months was set equal to the tax paid for urban rural estate for owning 1.5 ha of non-irrigated land.¹

The agreement established that the *Sindicato* will pay to the *Heredamiento* the stipulated price, for every *cuarta* produced by the river. Each farmer will pay to the *Sindicato* this price, plus some small fee, for every *cuarta* used. The payment will be done at the end of the year (after the harvest).

The *Sindicato* got a credit line from the bank in 1966. The contract on the credit line established explicitly that the money from the credit line could only be used to buy water property rights from the Waterlords. The *Sindicato* then offered a fixed price per share to all water owners, and used the credit line to buy the shares to all the owners that were

¹ As a side comment, it was common knowledge that during a drought, the price of one *cuarta* could be as high as the price of one *Tahúlla* (1,118 m²) of irrigated land. The typical farmer will own 2-4 *Tahúllas*. Hence, during a dry year the price of the water used to irrigate a plot of land cost more than the price of the land.

willing to sell at such price. By 1980, the *Sindicato* has bought virtually all the shares.² The *Sindicato* was also able to liquidate the credit line due to the fees that the farmers have been paying since 1966. Since 1980 the *Sindicato* reduced the extra fee that farmers had to pay per *cuarta* consumed, in such a way that it exactly cover average operational costs, i.e., the *Sindicato* has zero profits every year.

According to Jesús, the key for the transition to happen was the credit line that the *Sindicato* got from the bank in 1966. The policy of the *Sindicato* was to add a fee to the price of each *cuarta* that was greater than the average operational cost. This way, farmers with bigger plots that were using more water will pay a greater share of the cost. Also, due to the lack of contract enforceability, farmers could not refuse to pay for the water rights, because it was embedded on the price of the *cuarta*.³

Finally, Jesús emphasized that the transition was a good thing for all parties involved. Since it is a fixed price, the farmer knows in advance what his cost is going to be, and can save accordingly after the harvest. The Waterlord also gains: he has now a fixed flow of cash regardless of the outcome of the auction or the weather. In other words, the randomness is reduced for all parties, so everybody wins.⁴

² By the time of the interview, of all the 848 shares the *Sindicato* has not bought 11 of them. 4 of them belong to a “stubborn” farmer that refuses to sell for sentimental reasons. The remaining 7 belong to several individuals who have not been able to present proof of ownership, although it is common knowledge that they are the owners. The water corresponding to these 11 shares are used by their owners, independently of the *Sindicato*.

³ In the words of Jesús, you cannot force to pay to someone who is not irrigating because his plot of land is idle, nor can you force the city hall to pay his pending bills. Hence, you can only force to pay for the water to those who are using it.

⁴ Note that a fix price will improve the welfare of both parties, even if just one of them is risk averse and the other is risk neutral. This result does not need both parties to be risk averse.