## THE END OF TRADITIONAL IRRIGATION AND THE CREATION OF TRADING COMPANIES FOR THE SALE OF WATER. RIEGOS DE LEVANTE COMPANY - RIGHT BANK OF THE RIVER SEGURA

M. I. López Ortiz and J. Melgarejo Moreno University of Alicante

## SUMMARY

The existence of an area with a permanent water deficit whose agricultural production could be increased through irrigation, combined with the possibilities offered by technical advances applied to the hydraulic domain and the appearance of new policies that favoured the existence of resources, while allowing them to be «appropriated» by the concessionary system, provided the right context for the development of trading companies created to sell water for irrigation. The «new» volumes of flow came from the control works carried out by Central Government applying a confederate policy in the Segura catchment area and allowed the irrigated perimeter to be enlarged and areas with insufficient resources to be reendowed. However, the expected surpluses were soon shown to be smaller than expected, the concessions established for them were impossible to materialise and the potential area for irrigation was greatly oversized. It could be said that the theory greatly overestimated the water resources, although the new irrigation system and the activities of the water companies did transform a significant area in the Bajo Segura and Bajo Vinalopó areas of the Province of Alicante.

The creation of companies selling water for irrigation fell within the framework of the ideas held and ratified by nineteenth-century legislation based on respecting the natural order when managing water, and was aimed at promoting individual initiative as much as possible and keeping the State in a subsidiary role. It was these companies that gradually brought about an unprecedented transformation in land use, with lemon trees as the main colonists. The new irrigated areas were regarded as «abusive» and led to the drafting of exhaustive

regulations. It should also be pointed out that, up to the beginning of the 20<sup>th</sup> century, the organisation of irrigation and its affected area was centred on the meadowland areas and was managed by traditional institutions, such as the irrigation associations. A new stage began with the entry of private initiative through trading companies. The Compañía de Riegos de Levante was the most important of all the companies founded to extract and use water from the River Segura.

This company's exploitation of the concession granted in 1918 to a relative of one of the most influential politicians of the Restoration period – J. Chapaprieta – led to the creation of a new irrigated area covering approximately 4,000 hectares in the Vega Baja del Segura region of the Province of Alicante. The concession was for 500 litres per second to be taken close to the mouth of the River Segura, for the irrigation of their own and other land. This latter case involved payment for the water. The concession was initially in perpetuity, contravening the 1879 Water Law, as it included irrigating other users' land by levying a charge. A sentence passed by the High Court in 1923 in response to a request from the hydraulic administration, reduced the period of the concession to the 99 years set by law. In 1921, Chapaprieta sold his concession to Compañía Riegos de Levante, a pioneering company in the sale of water for the transformation of unirrigated land. The company was founded in 1918, with both Spanish and foreign capital, to manage a concession for surplus water from the River Segura. The main shareholders were the Dreyfus Bank and the National Bank of Paris. The Board of Directors included well-known personalities of the time, such as the conservative politician Juan de La Cierva, the liberal politicians Rafael Beltrán Ansó and Trinitario Ruiz Valerino, King Alfonso XIII and the Bishop of Orihuela, Irastorza. In exchange for agreeing to the sale, Chapaprieta arranged «preferential irrigation» for his lands and for those of his partner, L. Barcala.

The history of the company was marked by several conflicts, as it saw its interests and those of its main allies questioned by the other beneficiaries of the concession. The discrimination in favour of the lands of Chapaprieta and Barcala led to protests by the other irrigation users, who accused the company of favouring the beneficiaries of the clause and allowing them to make abusive use of the water. They also charged the company of having enlarged the potential irrigated perimeter excessively, thus that aggravating the water insufficiency of the original beneficiaries. The company was also accused of not having extracted all the water allowed by the concession. The hydraulic administration, in defence of public interest, accepted the complaints of the irrigation users, arguing that there could be no special privileges in the distribution of the water and that it could not permit the preferential treatment enjoyed by the lands owned by Chapaprieta and Barcala. It was argued that the decision was based on the principle of equality when enjoying a public service, with the establishment of rigorously-applied and uniform tariffs. They also reaffirmed the right to equal treatment that stemmed from the water legislation in force, a principle that was reflected by the fact that the water directly affected the properties in question, which led to the reversion – finalised in the period of the concession –operating in favour of all irrigation users. They therefore accepted the arguments of the irrigation users. Nevertheless, special concessions continued to be made in 1961 to the so-called «special regime» estates owned by Chapaprieta and Barcala when the concession was sold to Riegos de Levante - those estates affected by the clause cited in the purchase contract. In addition, as this

land amounted to 11% of the total surface area, they were granted 11% of the water to be distributed daily. The protests concerning the abusive enlargement of the potential irrigation perimeter initially divided the irrigation users into three groups: 1) Those whose lands were sited inside the initial perimeter of the concession (2,000 hectares in Rojales, Almoradí and Guardamar), who received a preferential right to water for irrigating their lands. 2) Those who irrigated using La Reguera (in Orihuela), who could only use surplus water. 3) Those whose situation was not legalised, with no rights as they were illegal. They later became two groups: one including those whose lands were inside the perimeter of the concession, whether the original or that corresponding to legal enlargements, while the second group consisted of the remaining irrigation users, who were only granted the right to use surplus water. The hydraulic administration accepted the preferential rights of the initial 2,000 hectares and regarded as «abusive» the later enlargements, whilst accepting the concession of surplus water. However, these decisions were questioned by the irrigation users and revoked by a High Court decision in 1974 that declared the areas irrigated by the Comunidad Riegos de Levante Margen Derecha before 1933 to be traditionally irrigated areas as regarded organisation of the irrigated areas of the River Segura.

The continuous disagreements between the irrigation users and the company selling the water spurred the administration to encourage the creation, in accordance with that laid down in hydraulic legislation, of the corresponding irrigation association, to which the company transferred the concession for the water on the right bank of the River Segura in 1961. The Bylaws of the Association defined an irrigated area of 4,183 hectares, thus recording the potential surface area for irrigation instead of merely the area corresponding to effective irrigation. This involved the recognition of an increase in the area with irrigation rights, while in practice the meagre and irregular volumes of flow had led to the irrigation rights of the beneficiaries being limited. The Bylaws stated that the water would be distributed proportionally to its availability and to demand, with the latter being conditioned by the irrigated area and the rights of the co-proprietors. To this end, a strict session-based distribution plan was established with sessions oscillating from 20 to 30 days. The sessions had to be established in advance, and the volume of flow corresponding to each estate established. The sessions laid down could not be changed. As regards the allocations, nobody could request more water or use it for longer than they were allowed by law. In the same way, it was established that irrigation users could only irrigate their land with the water corresponding to their allocation and no other, with the transfer or alteration of irrigation sessions being totally prohibited, with the exception of the estates subject to the so-called «special regime», which could do so as they were considered as single properties for this purpose. However, this prohibition was hardly respected, and there were frequent transfers and exchanges of irrigation sessions between neighbouring users to accumulate a greater number of hours of water. The recognition in 1974 of these irrigated lands as «traditional» implied, firstly, the preferential right of the irrigation users to benefit from the waters regulated by the reservoirs in the Segura catchment area, as this meant that the concession of water was not for surpluses but for continuously-flowing water to be extracted from the River Segura, meaning that its use was not «abusive», but totally legal. However, the application of this right came up against the difficulty of obtaining the volumes allocated in the concession from the

diminishing resources of the catchment area. This led to them being allocated 5.5 hm<sup>3</sup>/year from the Tajo-Segura transfer. In 1975, the land in the region was also favoured when it was declared to be an irrigation zone of national interest, which linked water use to the land and let the Central Government carry out work to modernise its agricultural structures.

The real water usage available to the irrigation users of Riegos de Levante on the right bank of the River Segura was significantly lower than the volumes they had been allocated, both in the stage of exclusive use of the River Segura's own waters and in the more recent stage when the latter were complemented with those from the Tajo-Segura transfer. At no time were the 17,25 hm<sup>3</sup>/year set in the 1918 concession extracted from the River Segura. In this regard, it should be understood that the Segura surpluses resulting from the control works were overestimated and the potential perimeter in which they could be used for irrigation had been oversized. However, it was in the concession period strictly speaking that the greatest volumes were extracted from the River, although these never exceeded 75% of the amount allocated on paper. As we have already mentioned, it was precisely the difficulty in gathering the own resources allocated in the area that led to transfer water being allocated. Its arrival meant that a greater allocation was expected. However, this was not the case. The amounts coming from the Segura dropped significantly, while the water from the Tajo was only able to balance the books for a few of these years. Logically, fluctuations in transfer volumes allocated to the region have reflected and continue to reflect the variations affecting global management of the ATS. This management has been compromised, along with other reasons of a more political nature, by the various drought episodes experienced in the grantor catchment area, which have led to a considerable reduction in the volumes released from the reservoirs to the receiving catchment area and, as a result, in the volumes allocated to this zone. Thus, at the start of the prolonged drought episode of 1980, there was a substantial reduction in the surpluses that could be transferred from the Tajo, which meant that the resources received during 1980-85 were significantly less than the theoretical allocation of 5.5 hm<sup>3</sup>/year. This situation did not change until half-way through the decade, when the volumes transferred increased, although always below the maximum amount programmed for the first stage of exploitation of the ATS (600 hm<sup>3</sup>/year). A new drought episode affected the first five years of the nineties, which saw the minimum recorded amounts of both the resources extracted from the Segura and those received from the Tajo. The extreme lack of resources led to the appearance of a hitherto unknown phenomenon: irrigation using water extracted from wells. Most of these wells - known as «drought wells» to underline the extraordinary scarcity that had led to them being used – produced very modest amounts, not normally exceeding 10 litres/second. These wells were first used in 1992 and remained in operation until 1996, extracting 1.5 hm<sup>3</sup> during this period. In 1992, the region also received an exceptional transfer of almost 0.3 hm<sup>3</sup> from the Júcar. The abundant volumes recorded in the reservoirs in the headwaters of the Tajo in the hydrological year 1995-96 led to an increase in the volumes transferred, with 2000-01 being the first time that the total amount scheduled for the first stage of exploitation was released from reservoirs, although this figure had been approached in the years prior to this. However, in the year 2000, a fall in own resources led to the region turning to wells once again, from which 0.15 hm<sup>3</sup> was extracted. In 2006, the resources of the region fell to alarming levels (1.1 hm<sup>3</sup> extracted from the Segura and 0.4 hm<sup>3</sup> transferred from the Tajo), and this led to authorisation to exploit wells

that had been exhausted by the drought (0.06 hm³) and to the most innovative measure of acquiring resources via contracts for the temporary transfer of rights to allow the transfer of 0.38 hm³ from the Tajo to the Estremera Irrigation Association and 0.13 hm³ from the Segura to an irrigation association in Cieza. All these volumes (0,522 hm³) were distributed using the infrastructure of the Tajo-Segura transfer. The post-transfer transport system had been used by the region since 1982 to transport and distribute the concessionary allocation, while paying the corresponding toll. This allowed the volumes to be extracted from the Ojós irrigation channel (Murcia) and not from the river at Guardamar, something that improved water quality. Another advantage of this method lay in the fact that the recourses allocated were sure to reach their destination.

The cost of water has increased considerably from the early seventies to the present day. Until the arrival of the transfer waters in 1982, the price set was that for concessionary water, which included all kinds of costs involved in extracting and transporting the water from its point of extraction (the river at Guardamar) to the area to be irrigated, with energy costs making up a high percentage in this case. From 1982 onwards, the region has been affected by two different prices, depending on the origin of the water – concession or transfer, although they are combined in one price paid by users independently of the origin of the water. The price of the water transferred was that set by Government at the corresponding tariff, but the value of own resources was also affected as a result of the change in the extraction point of the water and its transport along the post-transfer channels. This involved savings, as the volumes flowed by gravity did not have to be pumped but there was the extra cost of the corresponding toll. However, the arrival of the transfer waters led to a considerable increase in the average price. In the period in question, the value of the resource in constant terms almost tripled, although different stages can be identified. The price of water grew below the general retail price index up to the late sixites, when it exceeded the inflation rate, and it maintained similar levels until the late seventies. Since the concessionary waters were added to the transfer waters, their value rocketed, significantly exceeding the growth of the general retail price index. A further price rise took place in the mid-nineties, coinciding with the time of maximum water shortages, although prices fell in the following years as the volumes provided by the Segura and Tajo approached normal levels. 2006 saw a substantial increase in the price of water for the region's users, coinciding with a new episode of extreme drought.

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