Water and Territory

Contentious Waters: The Dispute Over the Colorado River (1904-1961)

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Abstract (Translated from Spanish); Since the Guadalupe Hidalgo Treaty was signed in 1848, through which Mexico lost half of its territory, the Colorado has been subject to a host of international disputes motivated by the control of its waters. . Its 2,300 km length makes it the longest current of the Pacific coast and a crucial factor for water supply in the western United States. In fact, since the end of the 19th century, it played a fundamental role in the expansion of the American agricultural frontier towards its western continental limits. For this reason, and despite the fact that from its immense basin only a small percentage corresponds to Mexico, the Mexican part was disputed by companies and irrigation agencies of the United States, which did not hesitate to violate an international treaty of limits and waters for have total control of this hydraulic current and thus guarantee the opening of lands in the American Southwest.

Abstract (Duplicated, provided in English); Since 1848, when the Treaty of Guadeloupe Hidalgo was signed, resulting in the loss of half of Mexico's national territory, the Colorado River has been the subject of countless international conflicts motivated by competing claims over the control of its waters. At 2,300 kilometers in length, the river is the longest waterway of the Pacifi c coast and a crucial element of the water supply needs of the western United States. In fact, since the late nineteenth century, the Colorado River played a key role in the expansion of the US agricultural frontier that extends to its western continental confi nes. There- fore, despite the river's immense basin, Mexico enjoys only a fraction of it. That tiny portion was disputed by US companies and irrigation agencies, which did not hesitate to violate an international treaty of limits and waters in order to gain total control of its hydraulic currents and thus ensure the opening of commercial lands in the American southwest.

Keywords: Irrigation, border, international river, Baja California, California, Mexico, United States Keywords: Irrigation, borderlands, Colorado River, California, Mexico-United States relations

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Aidé Grijalva INTRODUCTION

The source of the Colorado is in the Rocky Mountains where it begins its long journey of 1400 miles until finally ending in the Gulf of California (1) on a course that is very different from the path it once flowed upon only a hundred years ago.

Now, its channel is diverted, retained, diverted and stored through a series of multiple dams, gates and roadblocks. The flow of its waters is control and regulated by modern hydraulic engineering that give life to countless people, cities and farms, some so distant, that the water arrives through sofisticated and expensive aqueducts and tunnels. These waters now circulate through channels lined with concrete, to prevent seepage and water loss. As the engineer Guillermo Álvarez pointed out 40 years ago: "the Colorado River has moved from its natural origin to being transformed by man; from the mountain and the plain has gone down to dams and canals; of the wide and variant channel full of vegetation to the section of the concrete, narrow and rigid (2)."

But this was not always so. Not long ago, the Colorado descended impetuously carrying all the hauling material that it collected after its long walk. That river was an indomitable river that made more than half of its path lined, (3) polishing rocks of phantasmagorical figures, "carving fabulous landscapes with his patient erosive chisel, showing man the secrets of Pleistocene formations" (4), and it submerged and resurged constantly until it reached the border with Mexico. Below its confl uence with the Gila River, the Colorado spilled out of control, shortly before dying in the Gulf of California, forming a delta of enormous fertility. A delta that was compared to that of the Nile when it was discovered by explorers and members of scientific commissions from the mid-nineteenth century, when they extensively explored the area in search of an accessible route for a railroad that would unite the vast territory of the United States. - Two of America (5).

However, despite the fertility of these lands, little or nothing could be done in them because the waters of the Colorado were so rough that they became unpredictable. This fertility was due to the fact that the lands remained flooded most of the year and, when the waters dropped, they were covered with abundant silt (6). That is why, at the beginning of the 20th century - when the first irrigation works were carried out - settlements were established in the region of the Colorado delta, whose inhabitants still lived pending the flooding of the river.

Year after year, after the spring and summer thaws, between May and July (7), the floods of the indomitable river dragged behind it, dams, intakes, dams, floodgates or diverted its course and, instead of going to die in the gulf, its It was emptied in the Saltón Sea located in southern California, it discharged

1 Quintanar, 1936.1.
2 Álvarez, 1973, 31.
3 Amaya y Ramos, 1977, 2.
4 Álvarez, 1973, 30.
5 Hendricks, 1990, 1-2.
6 Hendricks, 1996, 45.
7 Hinojosa and Carrillo, 2010, 180.

its waters into new channels, spreading out in countless small streams that made it resemble an open fan. The indomitable Colorado broke down bordos and channels, small towns, hamlets, bridges, dreams and ambitions; He liquidated fortunes, fought against the railroad and against man, and, until very late in the twentieth century, remained unpredictable.

However, at present the situation is very different. The Colorado crosses the border with Mexico under Yuma (Arizoa) to arrive in the northeast to the Mexican section of the delta (Baja California). There, its waters are stored in a dam, built expressly as a result of a binational agreement. They are quartered and mixed with external water to lower their salinity indices. They are cleaned of silt and sand to be used within the limits established for human use. The volume of water delivered to Mexico is determined by an international treaty and, each year, a team of meticulous engineers from the International Boundary and Water Commission meets with its US counterpart and haggles not only the quantity, but also the water quality so that Mexican populations in the northern part of the Baja California peninsula can develop their activities normally (8). Representatives of the Mexican government have had to admit on several occasions that "leftovers" from the Colorado are arbitrarily sent to Mexico, with consequent flooding and damage to neighboring towns (9).

The Colorado no longer rambles about its delta as it did for thousands and thousands of years. The new generations of bajacalifornia- ignore us that half a century ago the locals went fishing, swimming or spending the day on the banks of a river that crossed the peninsular ground before ending their long journey10. They do not know that there was a bridge of great height to be able to cross it and that, more than a century ago, small steamers navigated by the low part of their bed.

However, despite the importance of this river to understand the emergence and development of northern Baja California, historiography on this process is scarce. The great interest in investigating topics related to the agrarian structure of the place, because during almost the first half of the 20th century most of the land in the Mexican delta was owned by a US consortium, led to an abundance of academic research different nature around the landowner company, monopolizing the attention of scholars on the past of the place. This displaced the interest for other topics of great historical relevance as it is the one of the water, especially by the Colorado, that is the unique permanent natural hydric resource in the north of the Baja California. And even though an irrigation company, also from the United States, was in charge of supplying the river water in the Mexican part of the delta. So not only the land of the Mexicali valley was in foreign hands, but also the waters that irrigated them. The latter has been historically minimized (11), although some authors have pointed it out:

8 Román, Cortez, Soto, Escoboza and Viramontes, 2010, 484.
9 Samaniego, 2006, 167-216 and 263-317.
10 Soleno, 1972, 19.
11 In this regard it is recommended to review Samaniego, 2006.

"Then the phenomenon arose that the lands and waters of the valley of Mexicali was not only in the hands of foreign companies, but the farmers who were benefiting were not Mexicans. The agricultural economy of the region was subtracted from Mexico (12).

Why this historiographical indifference on such a significant issue? We dare to affirm that the situation was so delicate from a political and diplomatic point of view, that the Mexican State avoided confrontation and concealed the fact that the United States seized water governed by international treaties. We will try to demonstrate this hypothesis throughout our exposition, going back to the origins of the dispute, after Mexico was stripped of more than half of its territory in the mid-nineteenth century.

The Beginnings of Discord

The international controversy over the waters of the Colorado is not recent. Already in the negotiations for the signing of the 1848 Guadalupe Hidalgo treaty, which gave shape to the US invasion, Mexico fought hard to control the then-coveted mouth of the Colorado River. The concern for Mexico was to be able to secure a point of union of its continental massif with the peninsula of Baja California, while the need to guarantee routes for fl uvial navigation was that of the representatives of the United States. The dominance of this opening was considered crucial for the creation of its internal market: the search for routes that combine the use of the river and the railroad explain the American position.

Finally, when Mexico managed to remain territorially united to the peninsula of Baja California, the United States gave way to the mouth of the Colorado but did so defending the part that most interested it: guaranteeing the free entry and exit of their boats: "The ships and citizens of the United States shall at all times pass freely and uninterrupted through the Gulf of California and the Colorado River below their confl uence in the Gila for their possessions and from their possessions north of the dividing line. ", Says article VI of the Treaty of Guadalupe Hidalgo, while article VII of the same treaty added:" The navigation in the Gila will be free and common to the ships and citizens of both countries without any of them being able to be made. , without the consent of the other, any work that prevents or interrupts the exercise of this right (13).

In this way, by virtue of diplomatic negotiations, the Colorado was converted into a navigable current of international character. Later, when the Treaty of the Mesilla was signed on December 30, 1853, the aforementioned river appeared for the first time as a borderline, (14) since this new pact marked a line between the Colorado constituted by meridian and parallel arcs, making a section adjacent to it. 20 miles from the river of under its confluence with the Gila, keeping the same dividing line for California (15).

12 Soleno, 1972, 31.
13 Soberanes y Vega, 1998, 36-37.
14 Álvarez, 1973, 22.

Since then, 32 kilometers of its channel serve as a dividing line between Mexico and the United States. Our country only owns 160 km of what is considered the longest current in the Pacific (16): from its confluence with the Gila River to the Gulf of California, in a journey that also separates the Mexican states of Sonora and Mexico. Baja California.

For this reason, of the immense basin of the Colorado River, calculated at 632,000 km2 and that includes regions of the states of Arizona, Colorado, New Mexico, Wyoming, California, Nevada and Utah, (17) only Mexico belongs to them. three thousand eight hundred km2, this is 0.8% of it (18).

That is why when the projects to develop the navigation in the Colorado were discarded, by virtue of the fact that the nature of the channel of this body of water, variable and shallow, made it only partially navigable, the eyes of the investors and ambitious speculators turned to that area, which began to be known at the time that attempts were being made to convert the Colorado into a waterway and a railway line to connect the east with the west of the United States (20).

The small part of the gigantic Colorado basin that corresponded to Mexico began to be sought after by investors and businessmen from the United States, who considered the region of great strategic value. The latter not only for its agricultural potential, but also for the realization that to derive its waters and use them to irrigate the southernmost part of eastern California, where cotton demanded huge amounts of water, it was necessary to control the area bordering its mouth (21).

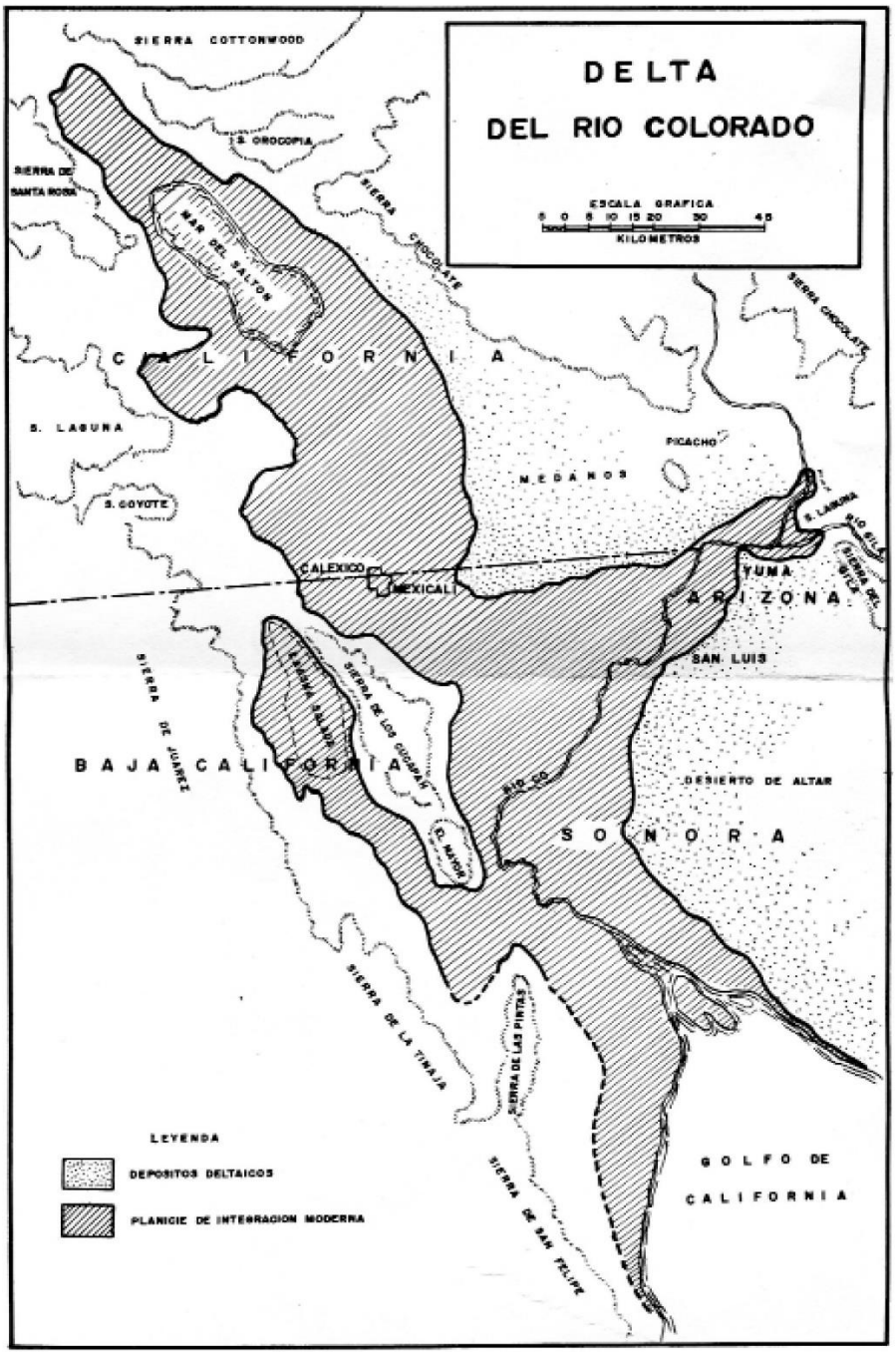
The latter explains the formation of irrigation companies, the carrying out of hydraulic works, the obtaining and traf fi c of land concessions of the delta or of irrigation permits granted outside an international treaty that already legislated on the flow of the river (22). All this has a lot of epic history and in it the hopes of American settlers are intertwined claiming new lands, that of visionaries and businessmen, speculators and a whole set of factors that could not be understood if we do not locate ourselves. At the end of the 18th century, a new technological era was inaugurated, which allowed for the realization of hydraulic projects hitherto considered utopian and the incorporation of large tracts of arid land, considered unfit for the development of populations. This is part of what in American mythology is the conquest of the old west, of that "wild west" that was still virgin at the beginning of the 20th century.

15 See article 1 of the Treaty of Limits with the United States, 1853.
16 Samaniego, 2006, 38.
17 Valenzuela, 1958a, 767.
18 Amaya and Ramos, 1977, 1. Samaniego, 2008, 55.
19 Hendricks, 1996, 50.
20 Bonilla and Urbina, 1912, 189.
21 Herrera, 2002, 93-110.
22 Pacheco and Sánchez Facio, 1997.

The American Nile (IE, the Colorado River)

"There is no such river in the world that carries so much silt!" Would write astonished in the third decade of the last century, the engineer Francisco Quintanar when referring to the Colorado River (23).

Map 1. The Colorado River delta, Mexican and American parts



Source: Soleno, 1972

In fact, it was estimated that 160 tons of silt were transported annually (24), tons that were deposited in its delta, in its bed and in its margins, which earned it to be considered one of the most muddy currents in the world (25). These could be covered with a surface of 41 square km of a meter in height, making the soils very fertile by depositing in them the enormous amounts of silt carried during the floods that the melting of the high mountains of the Colorado. and Wyoming caused each spring (26) to form a delta around the mouth into which the river discharged its waters in the Gulf of California. A river of recent geological formation (27), with a delta whose main seat would be, from the end of the 19th century, for reasons of chance of historical evolution and the conjunction of political factors, Mexican land, but whose total surface included the Salton Sea in southern California, United States, to the tip of San Felipe harbor in the Gulf of California. About ten thousand km2 that geographically formed the valley of the Lower Colorado River where, for millennia, the river roamed freely, overflowing, enriching it, saturating it with meanders, lakes, currents channels, natural borders, running on one side to another, meandering from the San Luis table to the foothills of the Cucapa mountain range, discharging to the north-in the Salton Sea-or directly to the Californian gulf, also known as the Sea of Cortez. This happened because the delta region has two natural slopes: one towards the northwest, whose bottom is 75 meters below sea level, in what is known as Salton Sea or Salton Sea, and the second course to the south, towards the Gulf of California28. A surface area of 9,635 km2, including the Saltón Sea, of which only its physical delta covers 4,170 km2, the latter located in its entirety in Mexican territory (29).

Baptized as the American Nile, its striking fecundity and its similarities with the Egyptian current are known: long and narrow valleys in both rivers, large flat deltas in its mouths, its birth in mountainous regions, its annual floods of early summer with overflows on the margins, its inner seas towards which its waters flow. Parallels, similarities, analogies ... except one: the international dividing line that, when crossing the stream at the head of its delta (30) , would turn it into a conflict zone.

23 Quintanar, 1936, 2.
24 Idem.
25 Historical Archive of the Ministry of Foreign Affairs, Mexico City (hereinafter AHSRE), "Report of the engineers Ignacio López Bancalari and Aurelio Leyva to the Secretary of Foreign Affairs, Mexico, November 12" (1919), exp. X-112-14.
26 Idem.
27 scholars locate it at the end of the Pleistocene, as the Lower Colorado River began ends of the Cretaceous period of the Mesozoic era (Valenzuela, 1958a, 769).
28 Quintanar, 1936, 4.
29 AHSRE, Uriah, F. and Burkholder, JL 1942: "Flood Hazard in the Colorado River Delta Region". Cd. Juárez, February 28, exp. X-69-7.
30 AHSRE, López and Leyva, 1919.

The EARTH AND WATER

The Mexicali Valley is the southern part of the Colorado delta region, also known as Bajo Colorado River. Its emergence and subsequent development as an agricultural emporium in the early 20th century was the result of the diversion into Mexican territory of the waters of this river, for the purpose of watering the southeastern part of the state of California, specifically to the Imperial Valley, its waters were diverted through the channel of a branch of the Colorado, known as the Alamo river or canal (31). The valley of Mexicali and the Imperial Valley form a geographical unit as part of the same delta, but are separated by an international political division (32).

The Mexican portion of this delta was acquired in the early twentieth century by a group of US investors initially led by Harrison Gray Otis and, later, by his son-in-law, Harry Chandler. Otis and Chandler, prominent entrepreneurs engaged in real estate speculation in the southwestern United States, were also owners of the Los Angeles Times newspaper. In 1902, this group organized a company called Colorado River Land Company, SA Through a series of buying and selling operations, it acquired some 350,000 ha, which made up that region (34). This company remained in place until 1946, date in which it sold to the Mexican government the more than two hundred thousand hectares it still owned in the aforementioned valley, after which in 1937 the then president of Mexico, Lázaro Cárdenas, in a known fact in The annals of local history, such as the "Assault on the Lands", expropriated about one hundred thousand hectares of land that were cultivated at that time (35). Cárdenas distributed them among peasants and day laborers who moved from different parts of Mexico, converting them into ejidatarios36.

The American owners of these lands were the ones who started the cultivation of cotton in the delta, due to the great demand experienced during the First World War. Although at first this was not the purpose, the intention was to establish a cattle ranch in the current Mexicali valley (37). With the demand for cotton, the result of the aforementioned world agrarian concession, the owners of the lands opted to establish the monoculture of cotton, as was already done in the neighboring Imperial Valley (38).

31 Rubio, 2007, 101.
32 Grijalva, 2008, 13.
33 Kerig, 2001, 65-70.
34 Hendricks, 1996, 155-162.
35 Kerig, 2001, 282-285.
36 Ejidatarios are the members of an ejido, a form of agrarian property in which a group of peasants receives land for agricultural use, and whose property is shared collectively. Each ejidatario receives an ejido parcel, which must not be less than ten hectares and has the right to receive a plot of land where he can establish his place of residence.
37 Kerig, 2001, 82-83.
38 A study by Pablo Bistráin indicates that out of 8,741 irrigated in the Mexicali valley in 1912 (Bistráin, 1953, 64), only 12 were planted with cotton. For the agricultural cycle of 1920-1921, in 50,000 irrigated hectares, 79,200 bales were obtained (López Zamora, 1977, 55).

"La Colorado", as it was known to the company that owns the land, established an effective mechanism to work the land, through leasing and sharecropping systems, in which natives from Japan, China, India (39) participated and, Exceptionally, Mexicans. The funds to acquire seeds, agricultural implements and for subsistence were provided by the company's bank, Mercantile Bank (40), charged to raw or raw cotton that was given to the latifundista company (41). It is not difficult to surmise the amount of the profits obtained, when some scholars point out that in the 1920s, "La Colorada" invested between two and three million dollars annually, financing cotton growers (42).

But not only the land was controlled by a group of foreigners, so was the water. The Land and Water Company of Baja California (CTABC), a subsidiary of the Imperial Irrigation District, an organization of farmers responsible for the distribution of water in the Imperial Valley, was the owner of the Alamo canal and a important network of water distribution and conduction channels within the Mexicali valley (43). All this modern hydraulic infrastructure was established to ensure supply to the Imperial Valley farmers. Thus, until the mid-twentieth century, in the middle of the post-revolutionary period, on the northwest border of Mexico there was a US company that owns almost all the Mexican part of the Colorado delta region, while another US firm, Imperial Irrigation District (IID), was the owner of the permit to derive the Colorado water in Mexican territory. Trying to understand how this process went will be the reason for the next section.

The ATTEMPTS TO domesticate the COLORADO (River)

"Mr. CR Rockwood is the man who owns the credit for masterminding this great irrigation system [...] To Mr. Chaffey belongs to have brought to this desert scalded given by the sun and little hospitable the first waters in an artifi cial way (44) Anthony Heber commented to the settlers of the Imperial Valley in a meeting held" in the center of the largest irrigated territory in the United States, in the heart of the Colorado Desert (45), as the Imperial Valley Press headed the information about that assembly.

39 In the Mexicali Valley, there exists the "Hindu Colony" to date, where descendants of the natives of India live who arrived at the beginning of the 20th century to work as agricultural laborers.
40 Kerig, 2001, 241.
41 Dicken, 1938, 365.
42 Kerig, 2001, 232.
43 Rubio, 2007, 112.
44 Berumen, 2013, 59.
45 Imperial Valley Press, July 30, 1904.

Charles Rockwood, who did engineering studies at the University of Michigan (46), conceived the project of converting the Colorado Desert, as the delta region was known (47), into a semitropical garden (48). To this end, together with the engineer George Chaffey, who had directed several hydraulic works in arid areas of Australia (49), he organized the California Development Company in the late nineteenth century. Anthony H. Heber, "an astute and flattering business promoter" (50), originally from Chicago, and who accompanied Rockwood in the search for financing for his project, was the first president of this company.

It was they who promoted the possibility of using an old channel of the Colorado, called the Alamo River, to divert the waters and drive them to Southern California, an idea originally conceived by Oliver H. Wozencraft, who was part of the engineer brigade that located the route of the South-Pacific Railroad in 1849 (51). Since this channel was located in Mexican territory, they organized a new company with the name of Irrigation and Land Society of Baja California to acquire 40,407 hectares. (100,000 acres) where the channel of the old Álamo was located (52). With the purpose of attracting settlers to the American region of the delta, baptized the Desert of Colored with the attractive name of Imperial Valley (ImperialValley), in allusion to the British Empire, of which Chaffey was an admirer.

With the beginning of the new century, in August 1900, the derivation and construction of the canal began to take the Colorado current to the southeast of California. A year later, according to the telegram that Chaffey sent to his son, on May 14 at 11 in the morning, the waters of said river entered through a specially constructed gate, and on June 21, afterwards, After traveling through a section of the northeast of Baja California, they were interned again in the United States (53). A new stage in history, both in the United States and Mexico, had opened.

46 Hundley, 2000, 58. Walther, 1983, 26.
47 Hendricks, 1990 , 2.
48 AHSRE, Antúnez, E. 1929: "Irrigation in the Mexicali Valley of the Northern District of Baja California", March, exp. X-118-19, 9.
49 Walther, 1983, 30.
50 Amaya and Ramos, 1977, 13.
51 Valenzuela, 1958b, 785.
52 Hendricks, 1996, 147.
53 Herrera, 2002, 110.

However, this victory could not be savored by its promoters. A series of obstacles, some of a legislative nature, others political and economic, impeded the proper functioning of the hydraulic enterprise in the Imperial Valley as well as the continuation of the works undertaken. This situation was drastically modified when the Mexican government authorized a crucial concession by which the Irrigation and Land Society of Baja California could derive the waters of the Colorado into Mexican territory. This permission was given after the government received reports from a Mexican inspector expressly sent to recognize the area, where he described shocked the intense activity carried out by the aforementioned irrigation company to divert the course of the Colorado River to the southeast of the country. state of California. In the face of the evidence, the Mexican government had no other choice than to fold their hands and, in an attempt to save the diplomatic honor, on May 17, 1904, the secretary of the Ministry granted a license to the Irrigation and Land Society of the Republic. Baja California for the passage of the waters of the river through Mexican territory. Faced with the fait accompli, the Mexican government had no choice but to "legalize" the derivation that was already made of the waters of the aforementioned international water current (54). This authorization gave acquiescence for an expenditure of 284 m3 per second, as long as half of it was used in the territory of Baja California. This was the equivalent of 5,000 cubic feet per second (142 m3). In an inexplicable gesture, the Mexican government granted the concession for 50 years and also allowed that "as long as the lands of Mexico did not require it, the concessionaires were free to drive and take advantage of the part corresponding to our country (55). And not only this. The concession included a right-of-way up to 20 meters in the entire length of its canals, on either side of them, in addition to the width of the same channels, the authorization to take "free" all nationally owned land. that the company will occupy for the "obstacles and water deposits, warehouses, stations and other buildings", as well as the land of private property necessary for the establishment of its aqueducts and dependencies, resorting to the expropriation laws for the cause of public utility, also giving it permission to "destroy or destroy, in whole or in part, trees, magueyes and others" obstacles "if necessary, as evidenced by the reading of articles 11, 12 and 13 of the aforementioned concession (56).

Fortunately, the Mexican government reserved the right to establish tariffs for water delivered to Mexican lands, although some scholars consider that these "provisions placed farmers in the Imperial Valley under close Mexican control (57) , which really was not like that.

54 Hundley, 2000, 60.
55 AHSRE, Antúnez, E. 1929: "The Irrigation in the Mexicali Valley of the Northern District of Baja California ", March, exp. X-118-19, 15-16.
56 AHSRE, Office of Limits and International Waters," Miguel Osorio Ramírez's Opinion on theCompany of Land and WaterBaja California, December 13, 1959, exp. C-207-7, 114.
57 Hundley, 2000, 64. 58 Rockwood and Heffernan, 1930, 34-35.

However, the triumph obtained by the subsidiary of the California Development Company was ephemeral. When it seemed that legal obstacles had been solved, the following year, a series of strong river avenues threw overboard everything that had been built up until then. As of February 1905 uncontrollable floods began to arrive and by August of that year all the volume of the waters of the Colorado ran towards the north following the natural slope of the land, unloading its content in the Saltón sea. In addition to sweeping the structure of the previously constructed drainage, it extended and undermined an old channel known as the New River, dividing the nascent Mexicali settlement (58) since then.

In desperation, the directors of California Development turned to the Southern Pacific Railroad, the railroad company that had already built a railroad that linked the incipient populations of the Imperial Valley. He agreed to lend them $ 200,000 in exchange for displacing Heber as director and replacing him with Epes Randolph, then president of the Southern Pacifi c Railroad in Arizona and Mexico. Rockwood was temporarily retained as Deputy General Manager and Chief Engineer (59). This was the beginning of the end of the aforementioned irrigation company and its Mexican version. The Southern Pacifi c proceeded to close the gap opened in the Colorado and "after many and lengthy works" it would achieve it a year later, as indicated in a later report by the engineer of the Land and Water Company of the Baja. California, Ernesto Antúnez60. A rock dam sitting on dry branch mattresses seemed to them the best solution for piling pilings where "to sustain a railway on horseback" through which 300 railroad cars traveled with (60) tons of rock each (61). It is estimated that about 2,000 indigenous people from the region participated in these works: Pimas, maricopas and yumas from Arizona as well as Cucapás and Dieguinos. In addition, it was necessary to confiscate all the available quarries within a radius of 600 km and the imposition of "martial law" by the Mexican authorities (62) because on instructions from the government of the entity a small military detachment was assigned to comply with the police functions (63). By November 4, the river had been controlled and returned to its old course, but an increasing influx of one of its affluents, the Gila River, calculated At 1,360 cubic meters per second, it destroyed the achievement and by December of that year the entire river had been overturned again on the Saltón sea (64). However, by February of the following year, the engineers of the Southern Pacifi c had managed to return the river to its normal course, throwing large volumes of stone and rock into a board solid enough to halt its advance(65).

59 AHSRE, Antúnez, E. 1929: "Irrigation in theValley of Mexicalithe Northern District of Baja California", March, exp. X-118-19, 19.
60 Ibidem, 20.
61 Amaya and Ramos, 1977, 17.
62 Idem.
63 Berumen, 2013, 107.
64 AHSRE, Antúnez, E. 1929: "Irrigation in the Mexicali Valley of the Northern District of Baja California", March, exp. X-118-19, 22.
65 Ibidem, 20 and 23.

The situation was complex, especially in the economic area. The railroad company was on the verge of throwing in the towel but gave up on not getting government support, despite the call of President Teodoro Roosevelt (1901-1909), urging the US Congress to pass a bill to pay two million dollars. dollars to the Southern Pacifi c Railway for the work to be done. Rooselvelt argued:

"The loss for the United States will be very great if the gap is not permanently closed. The irrigable surface that will be submerged or deprived of water in the Imperial Valley and on the banks of the Colorado River is enough to accommodate and increase the population of Arizona and California of at least 350,000 inhabitants and probably 500,000. This land is valued at 500 to 1,500 dollars per acre, that is, a total of 350 million to 700 million dollars " (66).

The Colorado continued with its rambling channel, diverting its course every year, flooding without rhyme or reason, destroying what it found in its path. The alarmed farmers of the Imperial Valley, seeing the danger that loomed over their crops, turned to the then newly inaugurated US President, William H. Taft, who, unlike his predecessor, on June 25, 1910, obtained from his congreso a support of a million dollars or "the sum that was necessary" to build defense borders in Mexican territory, with the purpose of "protecting the lands and properties in the Imperial Valley and other places along the Colorado River in Arizona (67).

To cover the appearances, with the authorization of the governments of Mexico and the United States, the necessary arrangements were made so that the works that had to control the constant ramifications of the Colorado would be carried out through the Colorado River Land Company, who appeared as the executor of the same, although these were made with money and engineers from the US government. Harrison Gray Otis, the president of "La Colorado", was part of the responsible technical commission, along with the director of the Reclamation Service, FH Newell, of WL Marshall, engineer of the Department of the Interior, and of the prestigious engineers JB Lippincott , CE Grunsky and JA Ockerson (68). Likewise, the Mexican government authorized the presence of armed US guards who disguised as foremen.

"The Colorado" looked after the irrigation canals (69), while Colonel Miguel Mayol arrived with 400 men to safeguard the hydraulic works (70).

66 General Archive of the Nation, Mexico (hereinafter AGN-M), 315. Message from Theodore Roosevelt, President of the United States of America, to the Senate and the House of Representatives, Washington, January 12, 1907.
67 AHSRE, Antúnez, E. 1929: "Irrigation in the Mexicali Valley of the Northern District of Baja California", March, exp. X-118-19, 26.
68 Ibidem, 28.
69 AGN-M, Gobernación, vol. 324, Sec. 3.a, 1910 (44), exp. 4.
70 Berumen, 2013, 104. Samaniego, 2006, 283.

Studies conducted by the Ministry of Foreign Affairs indicate that the Southern Pacific Railroad spent between 1905 and 1907 a total of two and a half million dollars in closing the gaps to control the Colorado overflows, while the California Development Company invested 1,625,000 dollars in the construction of the 12 km of the Volcanoes board, in addition to another one called California Development Company. For its part, the US government provided one million dollars for the lifting of the Ockerson board and the repair of the existing ones (71). The interest of the US government in controlling the was evident Colorado, since the cultivation of a cotton that the United States Department of Agriculture had declared superior in class to the best that were produced in that country was at risk, according to a report by Anthony Heber. to the secretary of Mexican Development (72). "Blessed cotton that justified the investment in irrigation works," says, by the way, Luis Aboites(73).

Defended by several companies affected by the Colorado floods of the period 1905-1907, the two irrigation companies succumbed. The Mexican, unable to pay the demanded indemnities, witnessed the auction of her assets in January 1911, among them, the important permit of May 1904 given by the Mexican government to derive the waters of the Colorado(74). A society organized on August 20, 1910 by the Southern Pacifi c Railroad, baptized as the Land and Water Company of Baja California, SA (75), coincidentally the only one that attended the auction, offered 700,000
Mexican pesos (76).

The Land and Water Company of Baja California (CTABC) acquired buildings, aqueducts, floodgates and all the constructions that existed in the lands that had belonged to the Irrigation and Land Society in addition to the Álamo Canal and a series of minor canals, with their drains, aqueducts and gates, right of way, constructions and others. But the most important: the concession granted by the Mexican government to that company in May 1904 and "consequently the products, benefits, rents, goods, improvements, uses and utilities of all kinds that result in the said company of the aforementioned concession "(77). From then on, the Irrigation and Land Society disappeared with a balance against 1,150,000 pesos, "without a square centimeter of land and without a single drop of water (78). The California Development Company was later acquired by the railroad company on February 8, 1915. With this, this stage in which the two mentioned companies failed in their attempts to domesticate the Colorado River in the area surrounding its River mouth.

71 AHSRE, Antúnez, E. 1929: "Irrigation in the Mexicali Valley of the Northern District of Baja California", March, exp. X-118-19, 30-31.
72 Cited by Berumen, 2013, 106.
73 Aboites, 2013, 217-227.
74 Imperial Valley Press, February 4, 1911.
75 Dowd, 1956, 52.
76 AHSRE, Antúnez, E. 1929: "Irrigation in the Mexicali Valley of the Northern District of Baja California", March, exp. X-118-19, 32.
77 AHSRE, Osorio, M. 1959, Office of Boundaries and International Waters, "Dictamen de Miguel Osorio Ramírez on the Land and Water Company of Baja California", December 13, exp. C-207-7, 113-137, 7-11.
78 AHSRE, Antúnez, E. 1929:" Irrigation in the Mexicali Valley of the District North of Baja California ", March, exp. X-118-19, 32.

THE COMPANY OF THE TERRITORIES AND WATER OF THE BAJA CALIFORNIA

In July 1911, a group of Imperial Valley farmers organized the Imperial Irrigation District (IID) and, after releasing bond the sum of three million dollars, they were able to acquire the Land and Water Company of Baja California, SA Through this transaction, which was completed in July 1916, they obtained the system of defense channels and embankments previously built in Mexican territory in addition to the permission to use at will the waters of a river presumably governed by the Treaty of Guadalupe Hidalgo. Within the acquired channels was the important Álamo channel (79).

From that moment, the Imperial Valley farmers assured the supply of the vital liquid for their crops. A study prepared for the Ministry of Foreign Affairs in 1929 sums it up:

"To operate the stretch of the system in Mexican territory, there has been a need to organize a Mexican company that works in accordance with the laws of the country, under the supervision of the Ministry of Agriculture and Development. This organization is the Company of Land and Water of Baja California, SA, predecessor [sic] indirect of the Society of Irrigation and Land of Baja California, SA, primitive concessionaire of the right of passage of waters by national territory " (80).

In this way, the IID, through the acquired company operated both the US irrigation system and that which existed in Mexican lands, considering it as a unit, but giving absolute preference to the needs of the farmers of the Imperial Valley, whose lands they were exposed to the onslaught of Colorado's floods. Hence the importance of defense fences constructed in the Mexican part of the delta region.

Paradoxically, for the irrigation of Mexican lands, the then Ministry of Agriculture and Development "authorized" the tariffs that the CTABC charged to the agricultural users of the Mexicali valley, tenants and sharecroppers of those lands also in foreign hands, as, as we mentioned it, until 1937 a large part of these were owned by the River Land Company Colora- te. Salvador Cardona comments: "It can be said that at this time the group of Mexicans who were irrigating lands in the Mexicali Valley were only a group of Mexicans.

The of users within the IID organization (81). That is, those in the Mexicali valley had to pay to use the waters of a river that belonged to Mexico, but only on paper. Even, once the All-American Canal eliminated the dependence of the Imperial Valley of the Alamo Canal to supply Colorado water, the CTABC continued to provide the liquid to Mexicali valley users, by collecting the quotas authorized by the government. from Mexico.

79 Samaniego, 2006, 284.
80 AHSRE, Antúnez, E. 1929: "Irrigation in the Mexicali Valley of the Northern District of Baja California", March, exp. X-118-19, 34.
81 AHSRE, "Confidential Report of Mr. Salvador Cardona on the Company of Land and Water of Baja California, SA, August 7 [1950]", exp. 1485.5, 5.

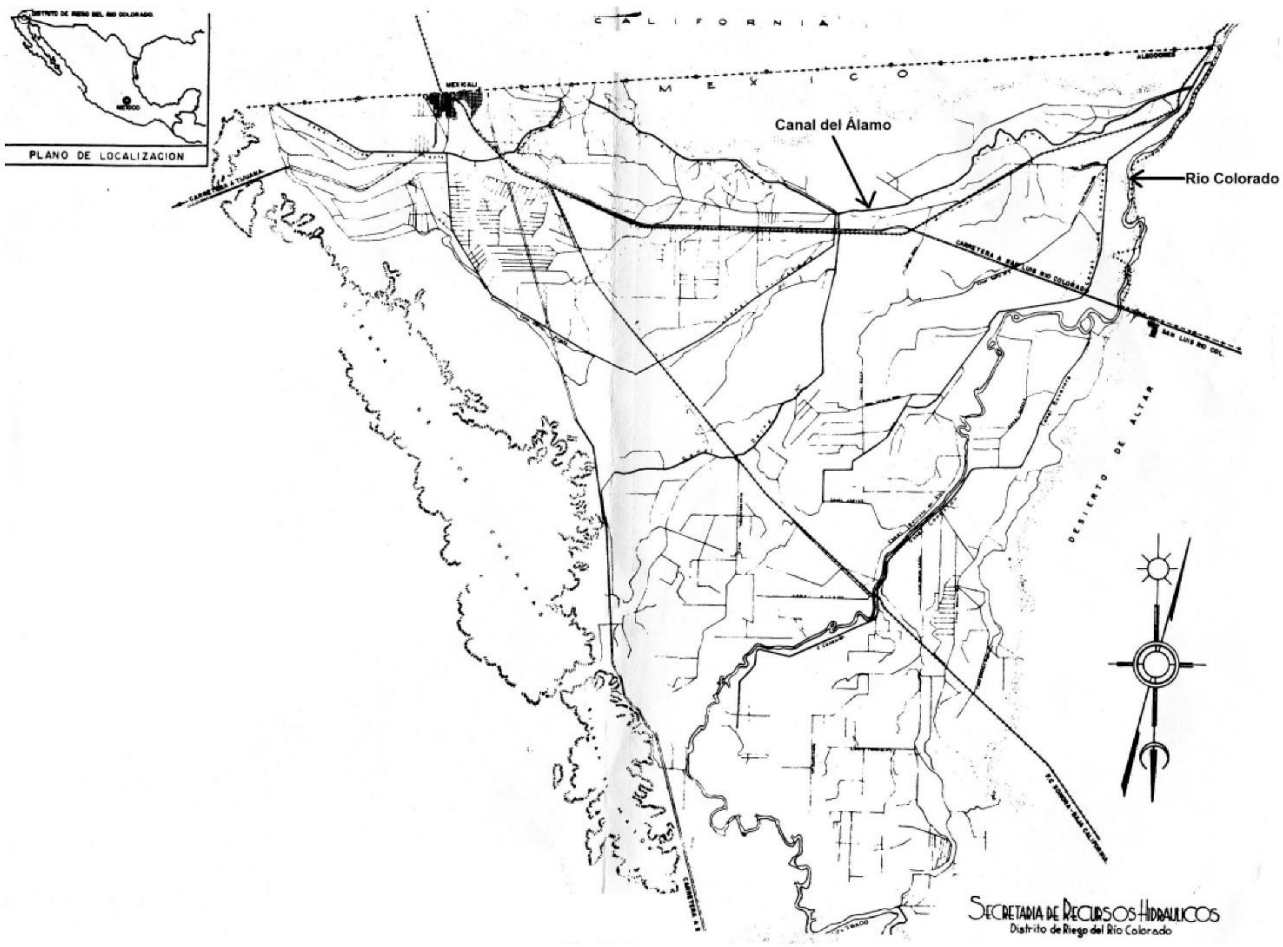
Engineer Dowd, who was in the IID from 1922 until his death in 1965, reported that the initial rate had been 50 cents per acre / foot (80 cents per thousand cubic meters) (82) until in 1919 the CTABC achieved that the government of Mexico would authorize an increase of about 86 cents per acre / foot, equivalent to 1.40 Mexican pesos per thousand cubic meters, a rate that was maintained until 1931. For the engineer Dowd, "the rate for Mexican water users, should reflect the cost sharing of defense works, hydraulic operations and maintenance costs "because according to his words, users of the Colorado River water in Mexico did not pay for the precious liquid what they "Corresponded" being the farmers of the Imperial Valley who assumed the cost of the difference (83). Apparently, the IID official forgot that they were deriving a water that belonged to us and that the aforementioned defense works were carried out to safeguard the lands of the ranchers of the Imperial Valley.

When on January 27, 1931 the Ministry of Agriculture and Development decided to lower the water rate of the company "that exploits the irrigation system of the Álamo canal" to one peso per thousand cubic meters delivered during that year "to the users established in the Mexicali Valley "84 and at the end of that same year, trying to reduce it by 25% more, the protests of the CTABC were of such a nature that it succeeded in suspending the second readjustment (85).

In spite of this, the tariff reduction calculated by 30%, coupled with the devaluation of the Mexican peso, caused the CTABC, which presumed to have earned more than half a million dollars per year during the sale of water to Mexico, during the period between 1922 and 1930, limited its profits to about 200,000 dollars in 1931 and only 86,000 the following year (86), years of a great agricultural crisis in the Mexicali valley. Some reports indicate that by 1928, the CTABC supplied almost seventy thousand irrigated hectares in the Mexicali valley and that the water consumed by the users reached 950,000 thousand cubic meters, derived at 170 points and driven by 220 km of canals. Estimates from that time indicate that up to 171,048 ha of the Mexicali Valley were unable to be irrigated through the irrigation system operated by the aforementioned irrigation company (87).

82 The official rate was established until 1907. Kerig, 2001, 87-88.
83 Dowd, 1956, 94.
84 AHSRE, Orci, AH: "Representative of the Land and Water Company of Baja California to the Secretary of Hydraulic Resources", Mexico City, March 3, 1961.
85 AHSRE, Office of Limits and International Waters, "Opinion of Miguel Osorio Ramírez on the Company of Land and Water of Baja California", December 13, 1959, exp. C-207-7, 113-137, 6-7.
86 Dowd, 1956, 95.
87 AHSRE, Antúnez, E. 1929: "Irrigation in the Mexicali Valley of the Northern District of Baja California", March, exp. X-118-19, 43.

Map 2. Network of channels and irrigation structures of the Mexicali valley, 1938



Source: Soleno, 1972

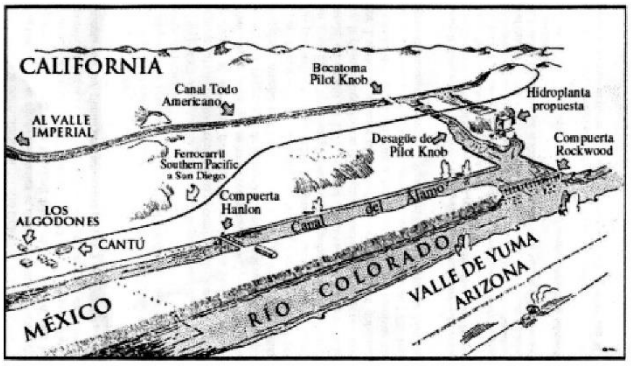
The creation in 1938 of the Irrigation District of the Rio Colorado, one year after the expropriation of land from the US large landowner, was considered a good au- gury. It was thought that next to the agrarian claim would come the recovery for the Mexicali valley from the waters of the Colorado that the CTABC (88) was illegally using. It was not so. Although it was the beginning of the administration of Colorado water by the Mexican government, it only managed a very small surface because, as some scholars acknowledge, "the water was of the Americans because the intake of the main channel was found. in the territory of the United States (89). For this reason, the agreement to create what would become irrigation district number 14, established that "the general irrigation system formed by the Álamo canal and its main sides, owned by the Company of Land and Waters of Baja California, SA continues in charge of the same, which is the concessionaire within the terms of its concession (90).

88 Soleno, 1972, 37.
89 Sánchez and Sánchez, 2009, 105.
90 DOF, 1938, 14.

According to this same agreement, the then newly formed National Irrigation Commission would take charge of the irrigation works and the distribution and conservation of the waters in the Mexi- cali Valley "with the exception of those of the Land Company and Waters of Baja California (91).

Two years later, when the All American, a channel parallel to the international divi- sional line in the Californian part, began operating in October 1940, to irrigate the lands of the Imperial Valley without having to resort to the Alamo canal system. , the Mexican government was alarmed by the threat that the entire flow of the Colorado River was diverted to California without reaching Mexico (92). In addition, the canal left without validity the concession of 1904 through which the Mexicali valley had acquired the right to use 50% of the Colorado waters that were driven by the Alamo canal system, equivalent to 3,900. million m3 per year (93).

Map 3. Caucas del Río Colorado, Alamo canal, and All American.



Source: Soleno, 1972.

91 Ibidem, 15.
92 Rubio, 2007, 105-111.
93 Soleno, 1972, 45. Source: Soleno, 1972.

Image 1. General view of the All American Canal, in the part of the Imperial Valley border and Mexicali Valley (1938) .

Source: Imperial Irrigation District.

The result was the new International Water Treaty of February 3, 1944 (94), which established the volume of water in the Colorado to which Mexico would be entitled annually and which was reduced to 1,850 million m3. Although it could be inferred that the new agreement would be the end of the CTABC and its interests in Baja California, it was not so. This continued to exist because in the aforementioned binational agreement a period of five years was established, with expiration in November 1950, for Mexico to build a bypass dam in the Colorado border section as well as a series of defense lines, and protection works for "land located in the United States". It would be several years before Mexico could exercise its right to use the waters of the river, although the volume granted decreased drastically.

The CTABC not only persisted but also continued to charge for the water it delivered to the users of the Mexicali valley. Two years before the signing of the Water Treaty of 1944, the aforementioned company complained to the corresponding authorities about its "precarious situation", requesting an increase in the tariff from one peso to one thousand cubic meters to 2.35 pesos. Given the pressure exerted, the Mexican government, through the International Commission on Limits and Waters (CILA), agreed to authorize an increase to 1.20 pesos per thousand cubic meters, only for the agricultural cycle 1941-1942, from September to October (95).

94 Hundley, 2000, 178.
95 AHSRE, "Adolfo Orive Alba to the Ministry of Foreign Affairs, Mexico City, November 26, 1942", exp. X-71-1.

In spite of this, at the beginning of 1950 the aforementioned irrigation company admitted having obtained the sum of 1,862,970.14 pesos as income for selling water from the Colorado River to users in the Mexicali Valley, 28,000 pesos less than the previous year. , when the obtained had been 1,890,046.75 pesos. These almost two million pesos a year that the aforementioned irrigation company continued to receive were affected as soon as the Morelos dam was inaugurated in September 1950 (96).

In the face of the threat of losing its profits, the CTABC had begun in 1942 a claim for the works Irrigation that had taken place since he had acquired the assets and concessions that had belonged to the California Development Company and its Mexican subsidiary. Forgetting that its main objective had been to guarantee the supply of water to the farmers of the Imperial Valley and that all the hydraulic works carried out were to fulfill the mentioned objective, it demanded a strong compensation. In a note published in the local newspaper Calexico Chronicle on July 13, 1950, the president of the Board of Directors of the Imperial Irrigation District, Evan T. Hewes, declared that "the IID has invested eight million dollars and an additional sum of two million dollars in the floodgates of Rockwood and Hanlon and in the Alamo canal, in the United States, which are being used to deliver water to Mexico. "He added:" The IID governing body thinks that United and Mexico must pay the people of the District for the investment in these properties. "

Faced with the refusal of the Mexican government to extend the 50-year concession granted for five years in May of 1904, the CTABC declared itself in liquidation for what it offered for sale to the Mexican government of all its assets and rights (97). On March 13, 1961, CTABC's agent, Arturo H. Orci, informed the Secretary of Hydraulic Resources (SRH) that after making a detailed appraisal of all the assets of said company, the price of these amounted to about fifty million pesos: 49,461,640 pesos, the equivalent of four million dollars of the period (98). However, in an "eagerness to cooperate" with the Mexican government, "sacrificing a large part of the amount thrown by the appraisal", its representatives had agreed to request only 15 million pesos (99), that is:
1.2 million pesos. of dollars.

That same year, the manager of the Riego del Río Irrigation District estimated the annual income of the CTABC to be almost one and a half million pesos (1,416,000), equivalent to 120,000 dollars, of which 600,000 were paid by the users of the valley of Mexicali and the rest by the SRH, for driving water by rivers of their channels, with which they irrigated between 55 and 60,000 ha net (100).

96 AHSRE, Office of Limits and Waters, "Opinion of the Valuation Commission of the Land and Water Company of Baja California, March 31, 1950", exp. C-207-7, 16-50.
97 Soleno, 2007, 19. 98 The official exchange rate between 1953 and 1976 was 12.5 Mexican pesos per dollar.
99 AHSRE, Orci, AH: "Representative of the Company of Land and Water of Baja California to the Secretary ofResources Hydraulic", Mexico City, March 3, 1961.
100 AHSRE: "Data provided to David Herrera by Engineer Óscar González Lugo, on the Company of Land and Water of Baja California", Ciudad Juárez, Chih., April 28, 1961, exp. C-207-7.

On May 12, 1961, the SRH was authorized to sign the necessary agreements for the acquisition of the irrigation channels and pumping plants owned by the CTABC (101). They had spent years of negotiations, of different opinions, in which the expropriation or expiration of the concession was suggested, since in 1937 Lázaro Cárdenas authorized the Irrigation Commission of the Mexicali Valley to initiate formal talks with the representatives of the CTABC (102). Twenty-five years elapsed until the Mexican government acquired the assets of the CTABC, in a tenth of the request, because the works executed by this company were "rudimentary adaptations to the old Colorado River," as "some channels secondary and tertiary with wooden structures of very low cost "as indicated by a legal opinion requested ex professor (103).

Several presidential administrations passed until it managed to reduce CTABC's economic demands and accept the figure that the Mexican government offered him as compensation. The then Secretary of Hydraulic Resources, Alfredo del Mazo, made the accepted proposal reach the President of Mexico by Walter K. Bowker, at the time manager of the CTABC, through which the Mexican government would acquire in 4.5 million pesos all the assets of the CTABC, with the exception of the plots it owned in Mexicali, the used cars, the equipment of office and tools. CTABC's commitment was to sell the urban lots only to Mexican citizens (104). As noted in one of the documents elaborated around this matter, the government chose to offer a merely symbolic amount because Mexico was the only bidder. The CTABC was in liquidation for not driving Colorado water to water lands in the south from California there was no longer the reason why it had been created. (105)

Payment of the agreed amount would be made in three installments: the first of two million pesos ($ 160,000) the 10th September 1961, upon completionthe cycle of irrigation, "in order that that company devote this amount to the liquidation of its employees and workers "; the next annuity of one million ($ 80,000) would be paid on May 10, 1963, and the last one, one and a half million pesos, in May 1964 (106).

101 Soleno, 2007,
102 AHSRE: "Agreement of Lázaro Cárdenas, constitutional president of the United States of Mexico", National Palace, February 16, 1937, exp. C-207-7.
103 AHSRE, Office of Limits and International Waters, "Opinion of Miguel Osorio Ramírez on the Company of Land and Water of Baja California", December 13, 1959, exp. C-207-7, 113-137, 5.

104 AHSRE, "Proposal made by Alfredo del Mazo, Secretary of Hydraulic Resources, Arturo H. Orci and Walter K. Bowker, of the Land Company and Aguas de la Baja California, June 21, 1961", exp. C-207-7.
105 AHSRE, "Memorandum for Presidential Agreement", Mexico, March 15, 2010, as a source of ignorance of a historical process of great relevance. While in Baja California historiography, empre-of1961.
106 AHSRE, "proposal madeAlfredo del Mazo, Secretary of hydraulic resources, Arturo H. Orci and Walter K. Bowker, the Land and Water Company SA American owner of the lands of the Mexican delta of the Colorado has been demonized and denigrated, the same has not happened of Baja California, June 21, 1961 ", exp. C-207-7.

An enthusiastic congratulations sent to the Secretary of Resources Hydraulics for the success achieved, pointed out the importance of agreement obtained, highlighting that he had put:

"final point to the inconvenient, unpleasant and annoying situation that prevailed in our relations with that company, since at the beginning of this century the irrigations began in the Imperial Valley of California with water from the Colorado River, derived in the territory of the United States and conducted by Mexican territory to said valley. "

On September 1, 1961, the president of Mexico, Adolfo López Mateos, in giving his third government report, briefly announced to the nation:

"The federal executive has taken the necessary measures to acquire with an investment of four million dollars. five hundred thousand pesos all the assets of the Land and Water Company of Baja California; In this way, the last of the foreign companies that accept the figure that the Mexican government offered as compensation under the protection of old concessions-exploits the nation's water resources (107).

Although the assistants to this report when learning about the news, standing posts applauded for fifteen minutes, the majority of Mexicans did not know what those words implied, as well as the prolonged and discreet ones. meetings held for close to a quarter of a century by the Mexican government in order to give an honorable exit to the anomalous situation.

Thirty days after the presidential announcement, on September 30, the SRH officially received the canal irrigation system del Alamo, which had been running for 60 years, from that May 14, 1901 in which for the first time the waters of the Colorado passed through the channel of this channel.

CONCLUSIONS

Official official documents reviewed, especially those of the historical archives of The Ministry of Foreign Affairs allowed me a first approach to the position of Mexican governments over 60 years in the face of the complex binational situation linked to the violation of agreements established for the uses of the waters of a river considered international and borderline.

For more than half a century the Mexican authorities, from the porfiristas to the revolutionary and postrevolutionary ones, 19, maintained a cautious attitude in relation to the shared with the United States. Such was the case of the Colorado River where diplomatic discretion encouraged the public unknowing of an irregular situation. It is not our interest to delve into these types of aspects, but rather to point out that discrepancy in the with the owner of the concession to derive, distribute and sell the waters in the northern peninsular territory. In spite of being the covert subsidiary of a foreign company, organized with the purpose of ensuring the supply of the Colorado waters for irrigation of the lands of southeastern California, the history of the Company of Land and Waters of the Baja California is still unknown in many aspects.

107 López Mateos, 1961, 139.

The reserve maintained by the governmental instances has caused confusions of such nature, that in official documents of high level it was arrived at to affirm that the Company of Lands and Waters of the Baja California was a subsidiary of a governmental dependence and that, In reality, the owner of the irrigation company was the United States government. Perhaps this distortion led to the stealthy attitude of the Mexican State to address the issue before its US counterpart.

The period analyzed here is quite long in historical terms, so according to the state of the investigation we can not venture conclusive conclusions. In spite of this, we consider that the history of this border irrigation company can be an example to know the ways of operating this type of companies, how it took advantage of a favorable border context and the existing economic and political vulnerability. in the region where he carried out his activities.

BIOGRAPHY

Aboites, L. 2013: The north between cottons. Population, agricultural work

and optimism in Mexico, 1930-1970. Mexico, The College of Mexico. Álvarez, G. 1973: "News of the Colorado River of
Baja California", in

Calafi a, II, 2, 22-31. Amaya, G. and Ramos, M. 1977: Monograph of an irrigation district. The Colorado River and the Irrigation District no. 14. Mexico, Ministry of Agriculture and Hydraulic Resources. Berumen, MA 2013: The conquest of water and the imaginary. Mexicali and Imperial Valley, 1901-1916. Mexico, Table x Cuadro-Fonca-Co-naculta. Bistráin, P.
1953: "Study
on the irrigation coefficients of the Irrigation District of the Colorado River, Baja California and problems that affect its operation", in Hydraulic Engineering, VII, 1. Bonilla, JS and Urbina, F. 1912: "Report on the natural resources of the northern part of Baja California, especially the delta of the Colorado River", in Paregones of the Geological Institute of Mexico, IV, 1, 161-235.
Dicken, SN 1938: "Cotton Regions of Mexico", in Economic Geography,

14, 4, 363-371. DOF, Official Gazette of the Federation, 1938: "Agreement Concerning the Control and Organization of the Colorado River Irrigation District," CXI, 30, 14-15. Dowd, MJ 1956: IID: The fi rst 40 years. History of Imperial Irrigation District and the development of Imperial Valley. Imperial, Imperial Irrigation District. Grijalva, A. (coord.) 2008: Those years of cotton, La Jabonera and the Mexicali valley. Mexicali, UABC, Urbi, Hermosillo y Asociados, San Francisco Paper Factory, IAMSA, Nutrimex, XIX Mexicali City Council. Hendricks, WO 1990: "The Forest of the American Nile" in
Perspectives: Sherman Library and Gardens, 24, Spring. 1-5.

Hendricks, WO 1996: Guillermo Andrade and the development of thedelta

Mexicanof the Colorado River, 1874-1905. Mexicali, SEP-UABC. Herrera, P. 2002: Reconquest and colonization of the
Mexicali valley and other parallel writings. Mexicali, UABC-XVII Municipality of Mexicali- ICBC. Hinojosa O. y Carrillo Y.
2010: "The binational basin of the Colora- do River", in Cotler, H. (coord.): The hydrographic basins of Mexico. Diagnosis and prioritization. Mexico, National Institute of Ecology and Climate Change, 180-188. Hundley, N. 2000: The waters divided. A century of controversy between
Mexico and the United States. Mexicali, UABC-Conagua. Kerig, DP 2001: The Valley of Mexicali and the Colorado River Land
Company

1902-1946. Mexicali, XVI City Council of Mexicali-UABC. López Mateos, A. 1961: "Third Presidential Report", in
Diario de Debates of the Chamber of Deputies of the Congress of the United Mexican States, XLV Legislature, year 1, volume

1, diary 13, 1st of September 1961, 118-183. López Zamora, E. 1977: Water, land. The men of Mexico.

Mexico, FCE. Pacheco, C. and Sánchez Facio, M. 1997: Controversy aboutpolicy

colonizationin Baja California. Mexicali, SEP-UABC. Quintanar, F. 1936: Desert and delta of the Colorado River.
Mexicali,Printing

National. Rockwood, CR and Heffernan, W. 1930: Born of the Desert. A history of

Imperial Valley. Calexico, Calexico Chronicle. Román, JA, Cortez, AA, Soto, R., Escoboza, F., Viramontes OA 2010: "Water in the northwest", in Jiménez, B., Torregrosa, ML, Aboites, L. (edits.): water in Mexico. Channels and channels. Mexico. Mexican Academy of Sciences-Conagua, 479-504. Rubio, CA, 2007: A la vera del Colorado: Reminiscences. Mexicali,
Rubio Díaz Family-Institute of Historical Research-UABC. Samaniego, MA 2006: International rivers between Mexico and the United States. The treaties of 1906 and 1944. Mexico, The College of Mexico-UABC. Samaniego, MA 2008 "Control of the Colorado River as a historical factor. The need to study the land / water relationship ", in Frontera Norte, 20, 40, 49-78. Sánchez, Ó. and Sánchez, E. 2009: Valley of Mexicali: Water and its men.
Mexicali, UABC. Soberanes Fernández, JL and Vega Gómez, J. 1998: The Treaty of Guadeloupe Hidalgo in its sesquicentennial. Mexico, UNAM-Institute of Legal Research-Center for Constitutional Studies
Mexico-Central America (Constitutional Notebooks Mexico-Central America, 28). Soleno, L. 1972: "General study on the use of the waters of the Colorado River, in the valley of Mexicali, Baja California and San Luis, RC, Sonora", degree thesis, Hermanos Escobar Superior School of Agriculture, Ciudad Juárez. Soleno, L. 2007: "The rehabilitation of the Irrigation District of the Río Colorado
". Mechanographic version. Treaties of Limits with the United States (Treaties of the Mesilla), in http: // www.memoriapoliticademexico.org/Textos/3Reforma/1854TLM. html (accessed May 3, 2013). Valenzuela, JG 1958a: "The geological formation of the lower Colorado River", in memory of the First Congress of Regional History. Mexicali, Directorate of Civic and Cultural Action-Government of the State of Baja California, 767-776. Valenzuela, JG 1958b: "Agricultural evolution in the valley of Mexicali", in Memory of the First Congress of Regional History. Mexicali, Directorate of Civic andAction
Cultural-Government of the State of Baja California, 783-791. Walther Meade, A. 1983: Origin of Mexicali. Mexicali, UABC.