

Farmers' Autonomous Management or State Regulation?

The Consolidation of Local Irrigation Associations in Spain (19th-20th Centuries)

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ABSTRACT

The collective management of irrigation is an essential factor in agrarian development, both present and past. However, the relationship of irrigation associations with the State remains underexplored, despite the increasingly important role played by water policies in the modern world. The present article examines this relationship in Spain over the last two centuries. Our results suggest that, first, the State played a decisive part in the emergence and evolution of irrigation associations, and this belies the assumption of the traditional origin of these institutions; second, that farmers, despite being subject to the regulatory framework, enjoyed substantial autonomy in the management of water resources; and, third, that the relationship between local associations and the State changed over time, in response to political regime changes and the transformation of irrigation agriculture. When the state tried to impose authoritarian policies upon irrigation users, these reacted by developing unprecedented forms of organisation.

KEYWORDS

State water policies, local irrigation associations, Spanish farmers, collective action

1 INTRODUCTION

In Spain, like in other southern European countries, promotion of irrigation has been a key feature of agrarian policies in recent centuries. The increase in productivity and a foreign market orientation were chiefly based on the increase in irrigated area and the improvement of irrigation systems. The governance of water resources is, in this regard, a central issue, and one in which State-sponsored programmes converged with local initiatives. In Spain, small-scale irrigation systems have been for centuries under the management of farmer-led organisations, and this remains the case today.

At the beginning of the 21st century, a total of 7,371 communities managed the irrigation of 2.7 million hectares (of a total of 3.3 million) (*Plan Nacional*, 2001: 136). The *comunidades de regantes*, Spanish local irrigation users' associations (LIAs), are legally recognised autonomous organizations, have strong local roots and, generally, act as interlocutors with public bodies. Historically, LIAs have held a sui generis place in the agricultural institutional framework. Their resilience over time, even more pronounced than with other agricultural collective institutions, such as cooperatives, compels us to explore the reasons behind their widespread social prestige and their autonomy in the management of water resources. For this reason, their legal characterization and their social structure have entered political and academic debate, also resulting in the

participation of foreign specialists.¹ Although the institutional history of these organizations has been paid some scholarly attention (Glick, 1970; Maass and Anderson, 1978; Peris, 1992; Pérez Picazo and Lemeunier, 1990; Pérez Picazo, 1997; Garrido, 2011; 2014), their role from the moment that the State took the leading role in regulating irrigation remains underexplored. What happened when the construction of major water infrastructures increased the size and scale of irrigation canals? How did these local bodies interact with the new state policy?

Historiography has tended to neglect these questions. However, other disciplines, such as development economics, has paid much more attention to water management by autonomous farmer-led organisations (Chambers, 1988; Ostrom, 1990; Tang, 1992; Baland and Platteau, 1996; Agrawal, 2008; or Ballabh, 2008). However, this research has largely focused on the internal operation of collective institutions, in terms of their design, conditions for sustainability, etc. The ability of irrigation systems to self-manage has been deemed as a crucial prerequisite for the efficient and sustainable use of resources. Often, these factors have been analysed in isolation from the broader institutional matrix as national governments, local bodies and other social institutions. In consequence, it is argued that irrigation associations have emerged and been reproduced autonomously, without intervention from the state, which is often actively ignored.

¹ Foreign interest on the operation of Spanish irrigation systems began in the 19th century, with the French Jaubert de Passà and Maurice Aymard, the British Colin C. Scott Moncrieff and Clements R. Markham, the Italians Giuseppe Zoppi and Giacomo Torricelli, and the American William H. Hall. An assessment of their conclusions is found in Garrido (2014). The modern theory about governing common pool resources used the Spanish case, concerning irrigation, as a prime example (Ostrom, 1990). Her interpretation was heavily influenced by Maass and Anderson (1978).

Our perspective is radically different and puts in the centre of the analysis the relationship of LIAs with their social and political environment and, especially, with the state². To overcome this myth of stateless commons (Ingold, 2017a: 870), it is important to bear in mind that “much of the history of irrigation development has been an interplay of state and local initiatives and actions” (Coward, 1986: 491). To this end, we intend to reconstruct those relationships in their historical trajectory throughout most of the 19th and 20th centuries. Our aims are: to investigate the evolution of this relationship over time; to examine whether this was the result of direct negotiation between the state and fully independent institutions, or whether the state played a role in the emergence and sustainability of LIAs; and to explore whether the state adopted any measures to hamper the autonomy of LIAs. All of these in the context of an increasing interest of modern European states in implementing active agrarian policies (Tracy, 1989; Pinilla, 2008; Vivier, 2008; Pan-Montojo, 2012; Moser and Varley, 2013; Freire and Lanero, 2013; Fernández, Pan-Montojo and Cabo, 2014). In this sense, the relationship between the State and the LIAs contributed to the design of agrarian policies that aimed to promote irrigation.

The article is structured as follows. The second section deals with the emergence from state regulation of LIAs in the 19th century, aimed to order and standardise irrigation systems. The third section explores changes in the relationship between LIAs and the state in the first third of the 20th century, when the construction of major water infrastructures began and basins assemblies became the basic water management units.

² From the perspective of economic development: Wade, 1987; Mosse, 2003; Gulati, Meinzen-Dick and Raju, 2005; Pradhan, 1997. From an historical perspective, for several European countries: Haghe, 1998; Riaux, 2006; Ingold, 2009 and 2017b; Vári, 2013; Joanaz de Melo, 2017.

The fourth section investigates measures implemented during Francoism to subordinate LIAs to the new political framework, and the emergence of supra-local irrigation collective institutions against the authoritarian view of water management. Figure 1 shows the most important LIAs cited in this article.

FIGURE 1

2 THE LIBERAL STATE 'CREATED' THE LIAS IN THE 19TH CENTURY

In the 19th century, LIAs became the predominant irrigation management model. Since the Middle Ages, farmers had participated directly in resource management, but most irrigation systems were managed by the local authorities (Glick, 1970). Only in some Mediterranean regions, such as the so-called *huerta* of Valencia, had the autonomous authority of the LIAs consolidated against encroachments from municipalities (Peris, 2015). The autonomy of some LIAs, commonly known as *acequias* in Valencia, was a gradual outcome, and had not existed from the Middle Ages, contrary to the idealised vision put forward by Maass and Anderson (1978) and Ostrom (1990). This perspective is based on early 19th century authors which indulged in a sort of 'invention of tradition'; a system that was, in fact, the result of a lengthy formative process was considered rather the fossilization of an ancient tradition, which was at that time under threat of economic changes and interventionist policies (Garrido, 2011). In these instances, canals were managed by the farmers themselves, under very different institutional guises, but decision power was generally limited to a small group of irrigation users (Pérez Picazo and Lemeunier, 1990; Pérez Sarrión, 1990; Peris, 1992; 2003).

The autonomous model, despite at first affecting only small proportion of all irrigated land, became generalised in the course of the 19th century. This process was promoted

by the state as a way of tackling conflicts arising in many irrigation systems following changes in the property structure introduced by the liberal revolution. The confiscation and public auction sale of Church lands allowed the arrival of new owners. These came from the city, were unconnected with rural societies and did not participate in the election of town councils, which usually administered water for irrigation. On the other hand, the abolition of the seigneurial rights put an end to the influence of the old landholders in the management of local resources. These changes had altered the social balance of irrigation systems and upset the municipal management paradigm. From 1833 onwards, the new liberal state confronted this situation by organizing irrigation-participatory management institutions wherever a new conflict flared or a new canal was built (Pérez Picazo, 1997; Ferri, 1997; 2002; Calatayud, 2016a). These isolated actions led to the enactment of the 1866 Water Act, which established LIAs for all existing and future irrigation systems serving a minimum of 20 farmers and 200 hectares. Although legislators argued that the new act merely consolidated an existing situation, in reality it was highly innovative. It generalised what had hitherto been but a limited autonomous management model and which was clearly distinct from the widespread municipal water management systems (Cerrillo, 1950; Maluquer, 1982; Matés, 1998; Calatayud, 2016b).

The state also defined how these irrigation management organizations were to operate. Each LIA was to be administered by a syndicate chosen by its members, who were also to elect a jury to solve disputes and impose sanctions. Although the composition of these associations was defined for each canal, general principles were established, one of which was especially relevant: certain decisions had to be adopted by general assembly,

the value of votes depending on the amount of land owned by each member.³ In short, the state tried to impose some degree of homogeneity by defining the LIAs' institutional form and limits.

The autonomy of these systems had a direct bearing on the management of irrigation water. One crucial factor was the amount of water that each system was allowed to extract from aquifers. Existing irrigation systems were allowed to maintain their previous endowments, which sometimes dated back to medieval royal concessions. As such, instead of trying to modify them, the state endorsed these endowments under a new legal category. Only in new irrigation systems did the state intervene by assigning a given volume of water, as it happened, for example, in the case of Canal de la Derecha del Llobregat (1849), Canal de Isabel II (1860) and Canal del Guadalhorce (1864).

Another important factor for the autonomy of the systems was the freedom that each had to impose their own rules. Each community preserved the freedom to legislate many issues as they saw fit. Water allocation systems, the introduction of changes in irrigation infrastructures, and enforcement of rules and sanctions were among these issues. Other institutional factors that were left for the LIAs to legislate autonomously included the size of government bodies, the duration of offices and the proportionality of voting systems.

The state supported the autonomous management of irrigation water in different ways. LIAs enjoyed better conditions than private companies: while the former were granted rights over water in perpetuity, the concession of rights to private companies was

³ Some voices were raised to oppose this voting system: J.M.V., 1868: 56.

merely temporary, since it was granted for 99 years. This was the case of the public limited company of Canal of Urgel, the Llobregat Canal Company, or even the foreign investors such as the New Majorca Land Company. In addition, in canals built through private initiative and with private capital, for instance the canal of Urgel, farmers had to constitute associations in each of the affected municipalities, which were to be granted full ownership of the canal one hundred years after the original concession.

However, the autonomous management of irrigation water was always a combination of specific community rules (partially linked to century-old tradition) and the state's laws (which tried to homogenise water use).⁴ Indeed, the consolidation of autonomous management models was not incompatible with the strengthening of the state's role in water management. As previously noted, the LIAs had ample room for internal manoeuvre, but were subject to state-wide regulation of concessions, which was defined by the Ministry of Public Works according to technical criteria. State engineers designed the technical characteristics of the works, assessed any damage to other users, decided when the flow of the river could be considered sufficient, etc. At the same time, the trend was for LIAs to become more homogenous, curtailing the enormous local diversity of the past. Nevertheless, the state's homogenising efforts were limited in scope. Firstly, many systems took decades to form LIAs, and continued operating according to their former protocols. Secondly, although the law clearly distinguished LIAs and municipal management systems, local councils continued playing a significant part in many irrigation systems.

⁴ This duality was stressed by Riaux, 2006.

The important thing, however, was that irrigations users gained an increasingly prominent role as interlocutors with the state, as water demand grew and competition over fluvial resources escalated. In these new circumstances, which were fully crystallised by the mid-19th century, LIAs were increasingly subject to administrative control; conversely, new water rights concessions had to be consulted upon and, to some extent, endorsed by the existing users (D'Amaro, 2017: 53).

LIAs emerged as the liberal state was taking shape, with its ideas of a modern public administration and individual property. In this context, as past community management models were being suppressed across the board, irrigation systems were an exception (Ingold, 2017a: 869); hence their peculiar legal status. Although private corporations, these organizations had considerable autonomy in the management of a public asset. The ambiguity of this position generated some legal discrepancies, and a number of court rulings passed in the early 20th century determined that the decisions adopted by LIAs had the "same status as decisions adopted by the administration" (Martín-Retortillo, 1997: 503). Other rulings determined that, in effect, LIAs acted as delegates of the state administration, and could execute debts and confiscate property, powers that were, at least on paper, exclusively attributed to the state (Moutón, 1910: 271; Martín-Retortillo, 1997: 559-560; Gallego, Menéndez and Díez, 1986). Within this regulatory framework, LIAs were firmly established by the turn of the 20th century, both at the local level and vis-à-vis the state.

3 THE ROLE PLAYED BY LIAS IN THE DESIGN OF IRRIGATION POLICIES IN THE 20TH CENTURY: PARTICIPATION OR ASSISTANCE?

The 1920s witnessed the beginning of a new stage in the governance of water. The relationship between users and administration became more complex owing to a combination of political and technological challenges. During the Second Republic (1931-1939) and the post-war years, governments pushed forward a large-scale vision which saw water resources as a crucial factor for the economic and social development (Molle, Mollinga, Wester, 2009), resulting in massive public investment aimed at expanding irrigation. In the second half of the 20th century, “irrigation constituted the principal area of public agricultural investment” (Clar, Martín-Retortillo and Pinilla, 2018). The relationship with LIAs, however, remained ambiguous.

Reforms took place during Primo de Rivera’s dictatorship (1923-1930) which, following the tenets of Fascist corporatism, introduced long-ranging changes to ‘hydraulic bureaucracy’ with the creation of basin confederations in 1926. These confederations, and its assemblies, aimed to put all agents involved in the promotion of water-related public works under a single authority: technicians, ministry officials, hydro-electric companies and the representatives of irrigation users.⁵ Engineers tried to take control but were forced to abide by the decisions adopted by the basin assembly, which included representatives of water users. The state, therefore, recognised LIAs as

⁵ River basins only incorporated three of the five groups of stakeholders which are generally regarded as participating in the design of hydraulic infrastructures (Molle, 2008: 247-256), as they excluded political actors and bankers engaged in the funding development projects. We should also add local administrations and, more recently, ecologist associations.

stakeholders within the framework of the assembly (Melgarejo, 1988; Fanlo, 1996; Mateu, 2010).

These federations were soon in place in different hydrographical regions, and they provided a forum in which members of LIAs could defend the interests of their sector, even against ministerial projects. As a rule, local communities accepted this new administrative framework quite passively. In some instances, as Acequia Real del Júcar or Canal Imperial de Aragón (even with the support of the hydroelectric industries), the big association became heavily involved in their organization and implementation in the hope of controlling regional water policies from within (D’Amaro, 2017). In other cases, by contrast, the assembly-based nature of the basin assemblies did not convince all irrigation users, which saw these bodies as an attempt by the state to interfere in their affairs. For example, in the Turia river basin (Valencia), the leaders of the *acequias* openly rejected the possibility of being sucked into “the defects of economic-bureaucratic organizations” i.e. alongside the technicians.⁶ As pointed out by Maass and Anderson (1978, 46), the farmers in this region

were suspicious of a new and additional level of representation. They preferred to rely on their capacity to influence river basin development through direct relations with professional personnel in the regional offices and in Madrid and direct influence on representative political institutions.

Likewise, the small LIAs in the Júcar river basin (Valencia) regarded the constitution of basin assemblies as an attack against ‘the freedom’ of irrigation users. They feared that

⁶ Temas Hidráulicos: Las Confederaciones Hidrográficas en Valencia, *El Mercantil Valenciano*, in Acequia Real del Júcar Archives (ARJA), record 49-1926.

they would lose their traditional autonomy, forcing them to negotiate water supply matters with other users and state technicians. In contrast, hydro-electrical companies and the largest LIA pressed for the basin assembly to be constituted promptly.⁷ Finally, in the Segura basin (Murcia and Orihuela), farmers took the middle road. Despite not trusting the technicians, they used the federation to keep control over water regulation, and impose their ancient rights (Maass and Anderson, 1978: 94). Local elites wanted to use the confederations, not only to play a role in water allocation, but also to consolidate their authority and limit the expansion of irrigation and the formation of new LIAs. However, this assembly-based system came to an abrupt halt with the beginning of the Civil War in 1936.

During Francoism (1939-1975), irrigation users were forced to mobilise more than ever before to defend their interests. LIAs were no longer consulted in the design of regional water management policies. A ministerial order promulgated in 1942 decreed that water policies would be determined by technicians alone. Basin assemblies were abolished, which turned confederations into a mere administrative bodies. Users, both agriculturalists and industrialists, lost their institutional presence in decision-making bodies. The most influential LIAs, however, refused to accept the passive role to which they were apparently fated, and over the next few decades sought to wrestle back control over water supply. They were convinced that traditional irrigation institutions had the knowledge, the local leverage and the right to take part in water allocation

⁷ Letters by Carcagente and Escalona LIAs (Valencia, 13 and 15/01/1932) addressed to ARJ; Llagaria, E.: "Informe sobre el aspecto jurídico del 'Plan Nacional ...'" (Valencia, 25/08/1934), in ARJA, rec. 142-1931.

policies.⁸ The important role of agriculture for the national economy allowed them to demand a say in the way water was distributed, while fighting against the regime's attempts to suppress their autonomy and their very existence.

As noted in Section 2, the state limited itself at first to establishing a general legal framework 'from above'. Until the Civil War, water concessions in perpetuity were not interfered with, despite increasing water demand. In effect, the legal framework supported community-based management associations while imposing restrictions on private companies, which could only aspire to temporary concessions (Martín-Retortillo, 2003).

The perpetuity of concessions was one of the main arguments cited by LIAs, not only to fight back the interference of the state's technicians, but also to vindicate the LIAs role as a valid interlocutor with the state. The governments tried to use these institutions to control agricultural production and rural society. Even after the war, during early Francoism, the regime continued enforcing the official constitution of LIAs (Saízar, 1964). As a result, despite recurrent regime change, during the first half of the 20th century LIAs increased their presence in the country's institutional framework.

The figures presented in Table 1 are an attempt at reconstructing the dimensions and evolution of these institutions during the 20th century. The data demonstrates that LIAs were already numerous in the early 20th century, but also that their number increased significantly throughout the century, as a result of the expansion of irrigation that followed the construction of major water infrastructure by the State. Correspondingly,

⁸ Letter by Irrigation Users Committee addressed to the Ministry of Public Works (Valencia, 03/07/1953), ARJA, C. 291 n. 3.

the number of LIAs members has also grown, as well as the total surface managed by these associations, which currently amounts to 80% of the total irrigated area.

TABLE 1

Although LIAs emerged within a state-wide legal framework which tried to homogenise their features, they were characterised by great diversity. Many of those that already existed in 1916 had been in place for a long time. The date in which they were founded is significant. While those constituted in the 20th century were more homogenous, following the legal framework, those created earlier had specific institutional peculiarities: such as the original internal division in sub-associations in the Acequia Real of Júcar river or the water tribunal in Murcia and Valencia that play a key part in the local communities of which they are a symbol of the autonomous irrigation management. Internal interaction dynamics were also different: farmers were more closely involved in resource governance in older LIAs, whose water distribution mechanisms were technically less sophisticated but which accumulated greater social capital (Sumpsi, 1998: 118). Another difference concerned the precision of water allocation mechanisms: while older LIAs relied on imprecise and non-quantified allocation mechanisms (water allocation was ambiguously determined on the basis of 'needs'), 20th century systems distributed fixed volumes, measured according to the state-supported decimal system.

The most visible difference, however, concerned size, a factor which has a decisive bearing on the complexity of internal governance systems. Tables 2 and figure 2 divide

LIAs according to number of members and irrigated area in 1972. The table 3 shows that the vast majority of LIA members were small owners.⁹

TABLE 2

FIGURE 2

TABLE 3

Most of the large communities managed canals built at a relatively late date, from the late 19th century onwards; some of these irrigation systems had originally been created by private initiative, passing further down the line into the hands of farmers after being rescued by the state from bankruptcy of the company, as it happened with the Canal of Aragón y Cataluña and with the Canal of Urgel (Ramon, 2004; Mateu González, 2017). The size of LIAs determined their relationship with national water management bodies. As we shall see later, the initiative always lay with a very small number of large communities, which would thus effectively become the interlocutors with the state and, in practice, the representatives of the myriad small associations with limited political leverage.

In conclusion, LIAs assumed the management of agricultural water regardless of the size of irrigation system. It is not the case that there were different levels of state involvement depending on size and complexity of the system; the same institutional relationship applies in canals such as Urgel, which covers 70,000 hectares and nearly

⁹ The proportions had changed little by the early 21st century: Sancho, 2006.

50,000 properties, as in one of the thousand *acequias* that barely serve 20 hectares and a few dozen farmers.

The increase in the number of LIAs was the result of the expansion of irrigation, especially during the 20th century: in 1916, irrigated land covered 1,366,441 hectares, while by late Francoism this figure had risen to approximately 2.5 million hectares. The major hydraulic works built during the 1960s greatly contributed to this expansion of irrigation. Between 1964 and 1972, the number of LIAs increased from 2,947 to 4,325; these LIAs administered approximately 60% of the country's irrigated area (Tasso, 1972: 345-346). In any case, the emergence of new LIAs during this period can be regarded as a paradox, because it is at odds with the Francoist trade-union system.

4 MOBILIZATION AND SELF-REFLECTION IN PUBLIC DISCOURSE: FROM LOCAL DEFENSE TO NATIONAL REJECTION OF THE CORPORATIST SYSTEM

The Francoist dictatorship introduced an entirely new framework of labour relations in order to suppress class struggle and promote cooperation within each economic sector. In the agricultural sector, this corporatist system, inspired by Catholicism and Mussolini's legal doctrine, resembled the *Organização Corporativa da Lavoura* imposed by the coetaneous dictatorship of Salazar in Portugal (Cabo and Lanero, 2011). Although formally framed in terms of 'trade-unionism', labour relations in Spain were organized vertically, and were part of the regime's interventionist economic and social policies, the expression of the most fascistic elements of the regime, called *falangismo* (Sanz, 2010). The constitution of a single Spanish Labour Organisation (OSE, after the Spanish acronym) threatened the autonomy of irrigation users and their historical institutions. The OSE was the only official representatives of agricultural interests (Del Arco, 2016)

and was to integrate all labour-related organizations, even LIAs. Once more, the state's ambiguous policies triggered the reaction of irrigation users, but this time collective action exceeded the limits of individual river basins.

The Trade Union Act of 1940 threatened the existence of LIAs, as well as of other institutions and associations. In the event, LIAs managed to escape the harshest measures of national-syndicalism and the wholesale mergers that suppressed other similar corporations. The food production in irrigation lands was crucial for the autarkic economic policies in force at the time. It was not convenient to overturn the water management system during the post-war crisis. In the second half of 1940s, however, Falangist tried to control the countryside by the agrarian trade-unions of the regime: the Brotherhoods of Farm Workers and Livestock Farmers. The OSE imposed the incorporation of all rural associations in the Brotherhoods, including those which were already under the regulation of the Water Act (Criado, 2004; Bernal, 2010). In order to meet their ends, the OSE tried to have a say in the regulations of newly-created LIAs; and to meddle in internal elections, especially in those areas where this system was less influential.¹⁰ Despite this, the OSE leaders were incapable of overcoming the resistance posed by LIAs, which never merged with the Brotherhoods. This was, to an extent, possible due to the social prestige of LIAs, both in the countryside and in ministerial corridors. This severely undermined the efficacy of the OSE in the countryside, and caused great tensions between Falangist leaders and the Ministry of Public Works

¹⁰ Perpiña, J.: Letter addressed to the boss of National Service of Brotherhoods (Gerona, 30/11/1946) and Aparicio, D.: Letter addressed to the boss of Legal Services (Madrid, 21/05/1946), Archivo General de la Administración (AGA), SIND. (06)39 C. 34/05905.

(D'Amaro, 2014). Confronted by the fact that the legislation was not being enforced, the Brotherhoods eventually gave up trying to impose a single water allocation system.

Tensions peaked again in the 1950s, with the rebirth of national-syndicalist aspirations, which led to an unexpected outcome. In 1953, representatives of the main agricultural regions met in order to organize national representative institutions. These meetings resulted in 1955 in the constitution of the National Federation of Irrigation Associations of Spain (Fenacore, after the Spanish acronym). This organization aimed to defend the autonomy of LIAs concerning water management, to participate in the design of hydraulic works and to create an unprecedented united national front against Falangist pretensions. In 1955, Francoism officially sanctioned the existence of a voluntary representative association that acted independently of the OSE.¹¹

The representatives of Fenacore claimed to work for the interests of all LIAs in the country, including those recently constituted in irrigated areas created on the initiative of the regime and those which managed subterranean water sources. They were aware that their interests could be safeguarded only if they acted as a unified lobby, taking advantage of their links with the Ministry of Public Works and other government actors. As a result of their zeal, the number of members grew exponentially in just a few years. The 72 communities that took part in the initial meetings in 1955 administered 240,000 hectares. Most of them administrated over 1000 hectares (Figure 3). Two years later,

¹¹ Letter by Superior Police Headquarters in Madrid addressed to Fenacore (Madrid, 08/08/1955), Fenacore Archives (FA), file ACF, Procurador Sr. Rosch Nadal y Recurso contencioso-admtvo....

the membership of Fenacore had rocketed to 160 associations, concerning an area of over 350,000 hectares.¹²

FIGURE 3

The voluntary nature of the membership of these associations and the independence of the Federation from the OSE demonstrates that the larger associations were trusted to represent the interests of the whole. Most of the leaders of Fenacore belonged to associations that managed areas in excess of 8,000 hectares (Table 4).

TABLE 4

Figure 4 shows that the most influential *acequias* from the eastern Spain (Valencia, Alicante y Murcia, the traditional irrigation lands dating back to the Middle Ages) featured prominently among the leadership. Just four council members came from smaller institutions, managing irrigation areas which were just over 2,000 hectares in size.

FIGURE 4

In the late 1950s, during a major shift in the balance of governmental power, Falangists started a “new campaign towards effective integration”. It was an attempt to recover their former pre-eminence in rural areas and in water management. Among other things, they accused Fenacore of being illegal, and the Federation was officially

¹² Report of the Board of directors (Madrid, 05/04/1956 and 09/04/1957), FA, file JG 1955-1959, 3^a-4^a Junta General.

disbanded in 1959. But nevertheless, its representatives continued with their work semi-clandestinely throughout the 1960s.¹³

In 1957, the national leadership of the OSE tried again to impose the Brotherhoods as the key representative institution for agriculturalists. They claimed to have the right to manage water flows in those areas where LIAs did not yet exist.¹⁴ The expansion of irrigation, which followed the construction of major water infrastructure by the regime, had left an institutional void, and the Brotherhoods aimed to organize new water users in these areas according to the principles of the Francoist trade-union. Generally, these were areas where there was no tradition of irrigation agriculture, and therefore of community-based water management systems.

For instance, the Brotherhoods from the province of Murcia declared – without specifying how they had done it – to be in control of LIAs in some new irrigation areas, such as Caravaca (Murcia). In other instances, they could make no headway, for example with the nearby Junta de Hacendados de la Huerta de Murcia, which the trade-unionists were forced to admit was “an old institution, with deep roots in agricultural life”.¹⁵ This offensive underlined the differences between traditional LIAs and other, less-organized users, which were more vulnerable to the corporatist aspirations of the regime.¹⁶ For this reason, during the dictatorship LIAs had to organize mutual support and information networks in order to defend their water-management rights. The leaders of Fenacore

¹³ Tasso, R.: Report (Valencia, 11/11/1963), FA, file JD 21-48, 33^o JD.

¹⁴ “Conclusiones aprobadas en las Asambleas Nacionales de Hermandades” in “Circular A), Nº. 19” (Valencia, 17/04/1957), ARJA, C. 291 n. 3; “Algunas de las Conclusiones adoptadas en el Congreso Agrario del Duero”, FA, file ACF, Integración Com. Reg. en Organización Sindical.

¹⁵ (20-27/01/1957). Las Confederaciones hidrográficas, las Comunidades de regantes y Ley de Aguas, cuestiones estudiadas por una comisión sindical. *Murcia Sindical*.

¹⁶ Report of the Board of directors (Madrid, 09/04/1957), FA, file JG 1955-1959, 4^a Junta General.

focused on trying to minimise the interference of the OSE, providing legal support to the less active associations and openly confronting the leaders of the Brotherhoods. To this end, they consolidated their links with the Ministry of Public Works which was in bitter disagreement with Falangist leaders over irrigation issue.¹⁷ This revealed the contradictions of a regime which, despite the unifying corporatist legal framework, was forced to admit the important role played by community-based water management systems.

Indeed, the confrontation with the OSE forced LIAs to re-think their role and prerogatives. The wish of irrigation users to be part of the public debate led to the convening of national conferences of LIAs from the 1960s onwards. These conferences were organized by the – now semi-illegal – Fenacore, but had the support of the Ministry of Public Works. These conferences demonstrated the irrigation farmers' resolve to act autonomously, and stressed the need to negotiate a new regulatory framework with the state. The conferences were conceived as arenas in which the agrarian elites could interact directly with the state administration, not only concerning legislation, but also water infrastructure and the design of irrigation institutions. These conferences, therefore, became an essential forum for the interaction between ministry officials and LIAs leaders, since Francoism offered no channels for institutional debate.

This explain the increasing popularity of Spanish irrigation management as a subject of research in the central decades of the 20th century. Its uncertain future triggered a public legal debate about water management and collective action, essentially between

¹⁷ ARJA, Actas JG 1957, nr. 25, 439 and 1848; Benjumea de Lora, P.: Letter addressed to the Minister of Public Works (Sevilla, 24/01/1957), FA, file ACF, Integración Com. Reg. en Organización Sindical.

technical and political cadres of the administration and the legal advisors and leadership of the associations. The LIAs based their defence in three key arguments: first and foremost, their history and tradition, which also included fully consolidated rights over water use; second, the efficiency of their collective-based water management system, which had guaranteed an intensive production regime and the supply of both domestic and international markets; and third, the fact that their ends did not transcend the administration of water (Alonso, 1972; Brugarolas, 1964).

The irrigation users' discourse – which had the support of many legal experts and engineers – emphasised the economic aspects of agricultural production. In this regard, technicians and farmers agreed that collective water management was the most efficient approach from an economic point of view. This was the case also in other countries. As pointed out by Ingold (2017b), technicians in 19th-century France argued that traditional users guaranteed a more efficient exploitation of water resources.

Furthermore, the definition of the legal character and prerogatives of LIAs became an urgent matter. It was a direct consequence of the irrigation users' struggle against the OSE. The regulatory framework, which had emerged in a very different political setting (19th-century liberalism) was being used to defend the collective and autonomous management of irrigation during the era of authoritarian intervention. Representatives of traditional irrigation systems took advantage of the ambiguity of the law, which left ample room for their concessions and autonomy. On the one hand, they vindicated an autonomous management of water resources and the right to follow their own rules. On the other hand, they claimed to be purely administrative, apolitical organizations which operated under the umbrella of the Ministry of Public Works. Many reached the

conclusion that the 19th-century Water Act did not clearly regulate their role, and there was persistent talk of changing the law (Maestre, 1969; Bolea, 1969; Fernández, 1974; Pérez Pérez, 1994).

Despite all the talk of legal change,¹⁸ these did not take place until after the return of democracy, when the 1985 Water Act fully defined the legal status of LIAs. According to some legal experts, the new law took into consideration the conclusions adopted at the conferences of 1972 and 1975 about LIAs as public corporations with legal personality. When the new Water Act was finally passed, LIAs leaders were heavily involved (Bolea, 2016: 31-42; Castellano, 2006: 316-317). Therefore, they had succeeded in leading politicians and state officials to adopt their discourse. LIAs had a very active public profile, achieved through leaflets and newspaper articles, and participated in many national and international meetings concerning water rights (Bolea, 2016: 360-361; Primer Congreso, 1984: 185-190); according to their discourse, their experience in the management of the landscape and the use of public resources was to be taken into consideration, not only with regard to their own internal rules, but for shaping legislation at the national level.

In conclusion, the Francoist government threatened directly to interfere with the institutional design of LIAs, while excluding them from decision-making arenas (users had no say in the operation of basin assemblies). The growing interventionism and the attempts at framing LIAs within the state-sponsored Brotherhoods triggered the reaction of the most influential and active LIAs; the perceived external threat drove LIAs

¹⁸ “Acta de la sesión extraordinaria de la Junta Directiva” (Murcia, 11/05/1968), FA, file JD 21-48, 44^o JD.

to new levels of cooperation and self-awareness, and to form, for the first time, a nationwide unified lobby. This enabled the consolidation of LIAs position in the democratic period both in terms of public opinion and the institutional structure of the state. Fenacore, in which over 500 associations participated, was granted an 'advisory role' in the Ministry of Public Works.¹⁹ More recently, LIAs have stood up in defence of their rights in the face of the publication of the European Water Framework Directive in 2000, which threatened to revise old concessions (Sancho, 2006: 48-52). Their social role has remained, therefore, very active; they have been aware of the central role that they play in water management, and have been able to interact with the public administration in the design of their own rules.

5 CONCLUSIONS

The irrigation development in Spain is marked by their intense and shifting relationship between the state's water policies and the activities of LIAs. Starting in the 19th century, the Spanish state tried to introduce irrigation into traditionally dry-farming areas and local associations were given an important role in this. To that end, the 19th-century liberal state designed the jurisdiction and shape of LIAs, giving them ample autonomy in the management of water resources. Communities were given privileged access to water resources – which were still publicly-owned – and the freedom to enforce their own water allocation rules. Uniformity, therefore, was the result of a top-down process which, in any case, was inspired by pre-existing autonomous institutions. Still, these associations were greatly heterogeneous in terms of size and political leverage, as well

¹⁹ *XXV Aniversario de la Fundación de la Federación Nacional de Comunidades de regantes de España, 20 de noviembre 1981*, Valencia, 1982.

as being socially heterogeneous, bringing together small peasants and large landholders. They were set up as organisations to promote cooperation among farmers.

LIAs grew in number and in importance as irrigation expanded on the back of state water-regulation policies. At the same time, their relationship with the state evolved, because of both political-legal and technological changes. But also because sometimes there were different views on how policies could promote agricultural development. Before the construction of major water infrastructure, LIAs managed natural water resources, and technology had no impact in the availability of these resources. When major engineering works began to regulate river flows, however, the amount of water available to LIAs also became subject to external regulation. While in the previous setting no higher authority decided the volume of water available to each irrigation system, with the new works in place, this authority not only existed but had the ability to influence decision-making processes within the LIAs. As their own records demonstrate, irrigation users were anything but the passive recipients of public policies. From the interwar period onwards, especially, they tried to participate in all water-related decisions, especially with regard to the institutional structure of their associations.

The most important and influential LIAs focused on three additional objectives. First, they tried to consolidate their role in the design and implementation of hydrological projects. Before the Civil War, the participation of LIAs was articulated through river basins confederations, while during Francoism it was much more reliant on personal relationships. Second, they tried to maintain historical rights over water flows and their allocation. They found support for their positions in the 19th-century legal framework

and, especially from the 1950s onwards, they tried to change it in their favour. Finally, they preserved their institutional autonomy vis-à-vis the state's institutions, which threatened to integrate them into the Francoist trade-union structure. This challenge drove farmers, and also legal experts and engineers, to think about the socio-economic role, the legal position and the prerogatives of LIAs. This resulted in the elaboration of a legitimising discourse which is still being used today.

In conclusion, collective-based water management system has maintained his pre-eminence in rural areas despite broad institutional and technical change. The Spanish case demonstrates that the characteristics and autonomy of farmer organizations are a result of their interaction with state administration and with other social actors. This interaction is much more than merely a direct negotiation between government and water-orientated associations as independent organizations. The state played a major role in the constitution and survival of LIAs, but that fact that the state did not ultimately encroach upon their autonomy was to a large extent caused by their efficient collective action. Far from ignoring one another, farmers and government had maintained a permanent dialogue, sometimes marked by conflict, and sometimes by cooperation and shared criteria.

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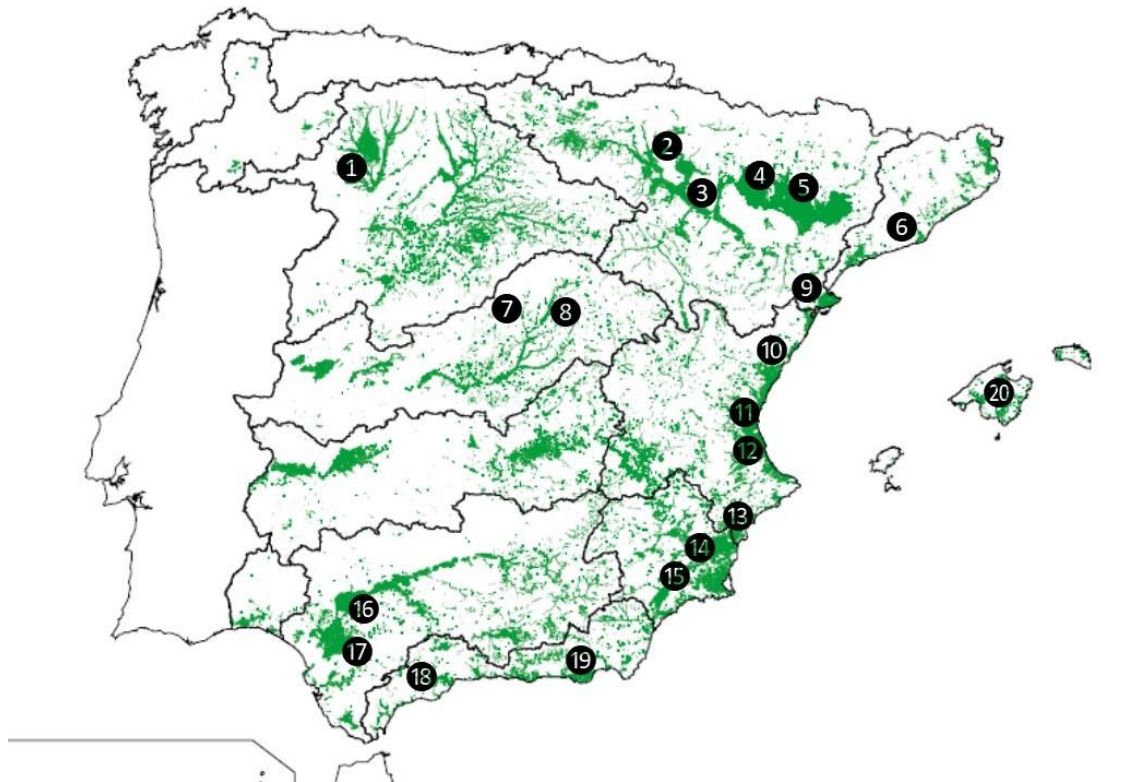
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Farmers' Autonomous Management or State Regulation? The Consolidation of Local Irrigation Associations in Spain (19th-20th Centuries)

Figure 1. Irrigations lands in 1997 and position of some important LIAs.



- | | |
|---|--|
| 1. Central Syndicate of Barrios de Luna Dam (León) | 12. Irrigation communities of "Acequia Real del Júcar", Sueca and "Acequia de Escalona" (Valencia) |
| 2. Central Union of Peña Dam (Zaragoza) | 13. "Juzgado Privativo de Aguas de Orihuela", "Juzgado de Aguas de Formentera del Segura" and others institutions of the province (Alicante) |
| 3. Canal "Imperial" of Aragón (Zaragoza) | 14. "Junta de Hacendados de la Huerta de Murcia" (Murcia) |
| 4. Canal de Aragón y Cataluña (Huesca) | 15. Irrigation Union of "Zonas Altas del Segura y de sus afluentes" (Murcia) |
| 5. Canal of Urgel (Lleida) | 16. Irrigation community of Valle inferior del Guadalquivir (Sevilla) |
| 6. Canal of "Derecha del río Llobregat" (Barcelona) | 17. Irrigation Community of "Canal de Mármol" (Sevilla) |
| 7. Canal of Isabel II (Madrid) | 18. Canal of Guadalhorce (Málaga) |
| 8. Irrigation Community "Canal de Henares" (Guadalajara) | 19. Central Union of water users of Genil river "Acequia Gorda" (Granada) |
| 9. Agricultural Union of the Ebro and Irrigation community of "Delta derecho del Ebro"(Tarragona) | 20. New Majorca Land Company |
| 10. Central syndicate of irrigation "Junta de Aguas de la Plana" (Castellón) | |
| 11. Union of regulation of Turia (Valencia) | |

Source: own elaboration based on map by Ministry of Agriculture of Spain.

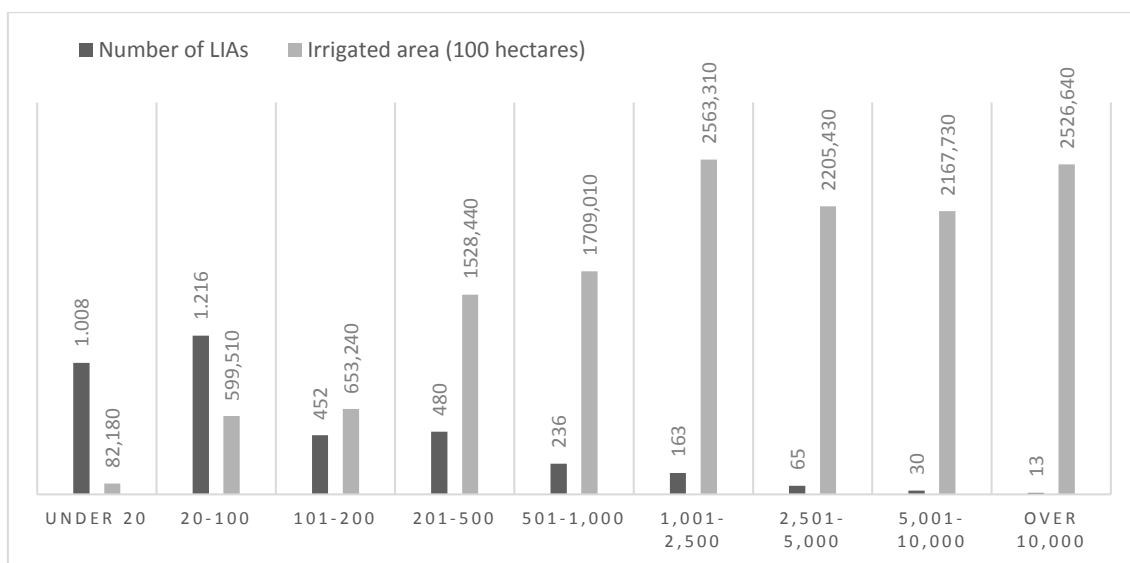
Table 1. Evolution of LIAs in Spain

	Collective irrigation systems		LIAs
	1916	1972	2002
Organizations	3,424	4,056	7,325
Irrigation users	-	796,757	1,422,869
Irrigated area (ha.)	855,480	1,403,549	2,767,476
<p>Note: irrigation user and irrigated area figures for 1972 represent a minimum, as the sources do not always provide this information, which is limited to the number of LIAs. The Canary Islands are excluded. Source: <i>Medios</i>, 1918; <i>Catálogo</i>, 1972; Sancho, 2006: 23.</p>			

Table 2. Number of LIAs according to size. Spain 1972

	LIAs		Total number of irrigation users	Hectares
	Number	Percentage		
No data	821	-	-	185,081
Under 20	431	10.6	4,250	34,597
20 – 50	630	15.5	21,798	48,221
51 – 100	590	14.5	43,889	61,650
101 – 200	668	16.5	95,461	104,696
201 – 500	591	14.6	184,477	244,088
501 – 1000	206	5.1	143,166	212,588
Over 1,000	119	2.9	303,716	512,628
TOTAL	4,056		796,757	1,403,549
<p>Source: <i>Catálogo</i>, 1972.</p>				

Figure 2. LIAs according to irrigated area. Spain 1972



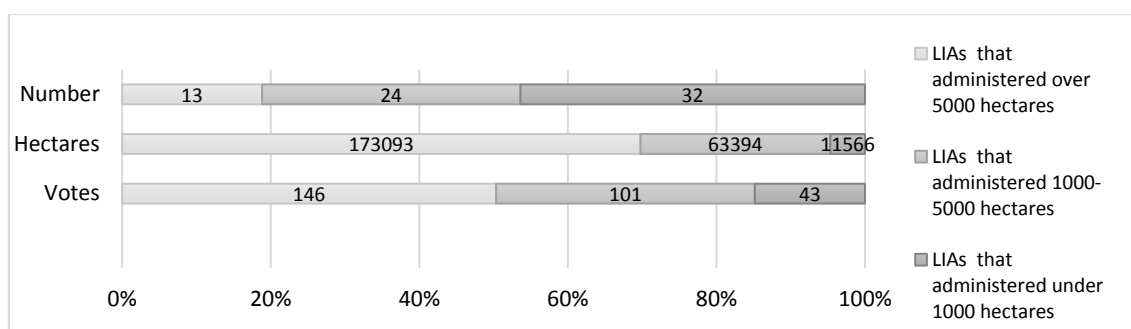
Source: *Catálogo*, 1972.

Table 3. Number of irrigation users according to size of property. Spain 1972

Hectares	Number	%
Under 5	751,075	94.3
5-10	26,262	3.3
Over 10	19,420	2.4
Total	796,757	100

Source: *Catálogo*, 1972.

Figure 3. Associations that have subscribed to Fenacore on the day of its incorporation (1955)



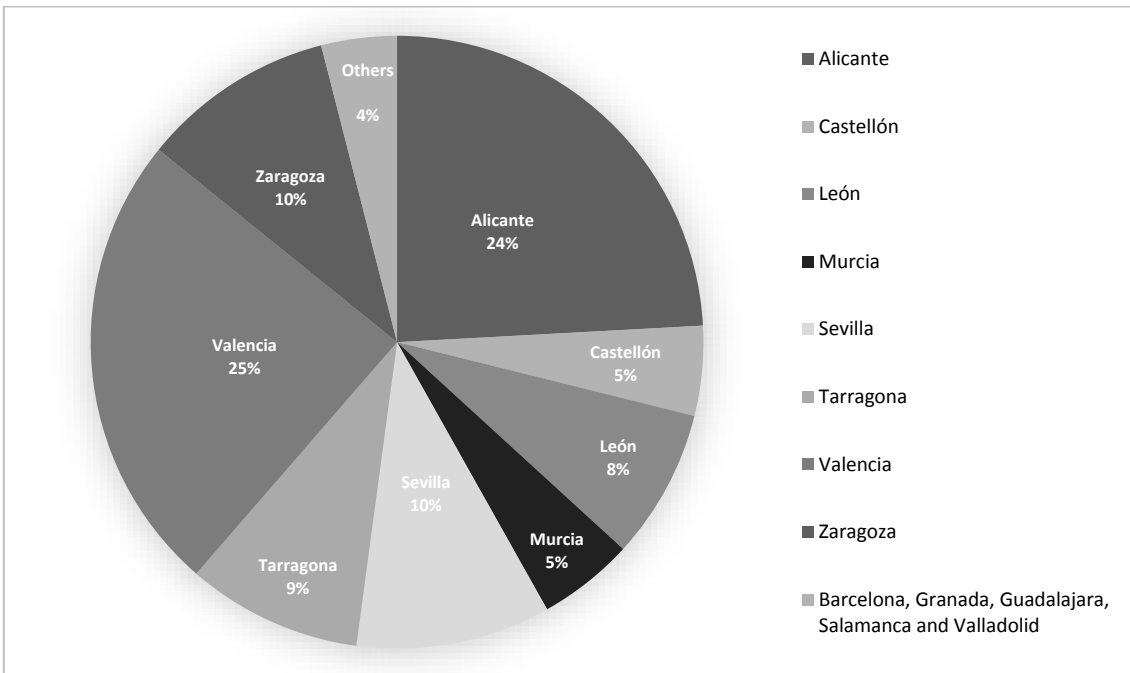
Source: ARJA, Actas JG. 1955, nr. 2250

Table 4. Fenacore's Board of Directors in 1955: water users' institutions and their representatives

Water users association	Hectares	Position in the first Board of Directors of Fenacore
Irrigation community of "Acequia Real del Júcar" (Valencia)	19,418	First Vice President and Secretary
Irrigation community of Valle inferior del Guadalquivir (Sevilla)	19,178	President
Central Syndicate of "Pantano de Barrios de Luna", in Hospital de Órbigo (León)	13,763	One member
Agricultural Union of the Ebro in Tortosa (Tarragona)	12,691	One member
"Junta de Hacendados de la Huerta de Murcia" (Murcia)	12,563	Third Vice President and one member
Central syndicate of irrigation "Junta de Aguas de la Plana" (Castellón)	10,449	One member
Irrigation community of "Delta derecho del Ebro" in Amposta (Tarragona)	10,026	One member
Irrigation Community of Sueca (Valencia)	8,868	One member
"Juzgado Privativo de Aguas de Orihuela" (Alicante)	5,941	Accountant
Irrigation Community "Canal de Henares" (Guadalajara)	3,500	Treasurer
Central Union of Peña Dam (Zaragoza)	Around 8,000	One member
"Canal de la Derecha del río Llobregat" (Barcelona)	2,734	Second Vice President

Irrigation Community of “Canal de Marmol” (Sevilla)	2,590	One member
Irrigation Community of “Acequia de Escalona” (Valencia)	2,500	One member
Central Union of water users of Genil river “Acequia Gorda” (Granada)	2,300	One member
“Juzgado de Aguas de Formentera del Segura” and others institutions of the province (Alicante)	310	One member
Irrigation Union of “Zonas Altas del Segura y de sus afluentes” in Archena (Murcia)		One member
Union of regulation of Turia River (Valencia)		One member
Source: ARJA, Actas JG. 1955, nr. 2250		

Figure 4. Members of Fenacore in 1955 (hectares per province)



Source: ARJA, Actas JG. 1955, nr. 2250.