

UNPACKING THE STRATEGIES OF POLICY ENTREPRENEURS IN IRRIGATION MANAGEMENT TRANSFER IN MEXICO

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Abstract

In the 1980s, the Mexican government adopted a vision of privatizing public sectors. At that time, the Mexican irrigation districts (ID) depended on the government and suffered economic shortcuts dedicated to maintenance and operation purposes, producing deterioration of the hydro-agricultural infrastructure. In 1989, the Mexican government started the Irrigation Management Transfer (IMT) program of the Mexican Irrigation Districts (ID) as a measure to reduce public spending. The objective of the study is to identify policy entrepreneurs' strategies in the Mexican IMT using the theoretical framework proposed by Huitema et al. (2010). The research identifies through a bibliographic review who the policy entrepreneurs were and what strategies were used to implement the IMT program in Mexico. It was found that the IMT approach came from outside Mexico. The actors identified as policy entrepreneurs were the World Bank-EDI, Senior CNA officials, international irrigation experts, influence farmers, donor advisors, and consultants. Three epistemic communities were recognized as coalitions. Moreover, the identified window of opportunity was the political and economic crisis of the late 1980s. Also, the management of the networks occurred even before the start of the IMT process, with recommendations from the World Bank and the FAO for a change in the Mexican irrigation policy in order for the Mexican government to be a creditor of loans. Finally, the shopping of venues was mainly done through irrigation policy debates, where ideas were disseminated and subsequently adopted in the Mexican case.

Keywords: Irrigation Management Transfer, policy entrepreneurs, policy change.

1. Introduction

1.1. Irrigated agriculture in Mexico

In Mexico, irrigated areas are essential for agricultural production, those areas are mainly divided in Irrigation Districts and Irrigation Units. Irrigated agriculture is crucial in covering the country's food needs and represent one of the main engines of economic development, contributing 51% of national agricultural production and 70% of exportations (CONAGUA, 2018). It is estimated that irrigation is essential in 63% of the territory, while in 1.5% irrigation is not necessary (Soto-Mora, 2003). The irrigation in Mexico is divided mainly in two types: irrigation districts and irrigation units. Both irrigation areas have hydraulic infrastructure, surface water and/or groundwater. The difference between irrigation districts and units lies mainly in the size and modernization of irrigation systems, not to mention its organization and governance. Irrigation districts are normally larger in extension, while irrigation units have commonly adopted pressurized irrigation systems (Ojeda-Bustamante et al., 2019; DOF, 2012). The National Irrigation Users' Association reports 86 Irrigation Districts, with a total area of approximately 3.47 million ha and 560,000 users grouped into 478 water users' associations (WUAs) and 16 Societies of Limited Responsibility (SRL by its acronyms in Spanish) (ANUR, 2023).

In the 1980s, the Mexican government adopted a vision of privatizing diverse public sectors. In that decade, irrigation districts in Mexico suffered an extreme reduction in the percentage of operation and maintenance costs contributed by users (less than 20%), causing notorious deterioration of the hydro-agricultural infrastructure (Johnson, 1997).

In 1989, in order to reduce public spending and achieve optimum collection of water fees from irrigation users and to "increase" productivity of irrigated agriculture, the Irrigation Management Transfer (IMT) program of the Mexican Irrigation Districts (ID) was started by the Mexican government. The IMT program has consisted of granting responsibilities of managing irrigation districts from the government to irrigation user organizations (Vermillion & Sagardoy, 1999). Therefore, irrigation districts go from being public systems (managed by the National Water Commission-CONAGUA) to autonomous private systems (managed by water users associations-WUAs) (Fajardo & Rap, 2008; Johnson, 1997; Trava-Manzanilla, 1994).

Historically, Mexico has depended on international organizations, adopting water management ideas from global water discourses. The IMT approach was advocated and promoted by diverse policy entrepreneurs such as senior National Water Commission officials, international irrigation experts, donor officials and advisors (Rap, 2004; 2006). According to Huitema et al. (2011), the policy change is incubated and influenced by actions of policy entrepreneurs inside and outside the government, as in the case of IMT in Mexico.

Policy entrepreneurs are individuals or entities driven by their agency, who promote ideas and assume positions regarding a policy change, involving themselves in the change process and investing time, energy, reputation, and even economic resources to achieve their goals (Huitema et al., 2011; Brouwer, 2015; Mintrom, 2020). The role of policy

entrepreneurs represents an important feature in the shape of the Mexican IMT case as a policy transition “success”, mainly due to this case has been seen as a model to adopt in order to improve irrigation systems performance while decreasing public expenditures (Groenfeldt, 1998). For instance, countries as Tanzania and Turkey have used it as example (Huitema et al., 2011). Nevertheless, the “success” of the Mexican IMT case is often debated, arguing that Mexican policy is “only a *success* within the specific cultural and ideological understandings of the policy network” (Rap, 2006, p. 1312).

In the context of irrigated agriculture and its governance in Mexico, Murillo-Licea & Soares-Moraes (2013) point out that the country's defined and practiced water governance has not had the expected results regarding agricultural production and resources management overall. Moreover, the mentioned authors express that, given the insufficient governability and water governance mechanisms, in the future, it will be necessary to undertake efforts to create a new water policy model, stating that “the current social and environmental conditions of Mexico so demand it” (p. 161).

In the present research, through the theoretical framework developed by Huitema et al. (2011), the possible used strategies used by policy entrepreneurs to establish Irrigation Management Transfer (IMT) in Mexico are explored and analyzed in the climax of the IMT (between 1989 and 1994).

1.2. IMT and current governance in Mexican irrigation districts

In 1989, as part of the National Development Plan (1989-1994), the Mexican government created the National Water Commission (CNA) as the water authority to determine the water resources management policy in the country, leading to the National Program for the Decentralization of Irrigation Districts (Johnson, 1997).

Consequently, the CNA transferred irrigation management from irrigation districts to irrigation users in two forms. Firstly, it was promoting the creation of water users' associations (WUAs) to function as financially and administratively autonomous bodies with the capacity to operate irrigation modules within a defined irrigation district with their own staff (Rap, 2006). Each WUA manage one module. The irrigation users chose WUAs' leadership and staff, while the operation and maintenance of the main canal and upstream infrastructure was responsibility of the CNA. In the Mexican context, irrigation modules are irrigated areas from the main canal of the irrigation district to individual intakes of a set of fields with the rights to use hydraulic infrastructure within its limits (Johnson, 1997; Rap, 2006).

Secondly, it was encouraging the creation of Societies of Limited Responsibility (SRL) as collectives of WUAs within an irrigation district to operate main canals, drains, and roads. The SRLs were implemented just in some irrigation districts (e.g., irrigation district 041 Río Yaqui, Sonora and 075 Río Fuerte, Sinaloa). The WUAs chose SRL' leadership and staff, while the CNA was accountable for managing water sources and general water management planning of the country (Johnson, 1997; DOF, 2012).

In this irrigation water governance arrangement, CNA functions evolved as service providers for the autonomous management of irrigation water by the WUAs (Rap, 2006). Between 1989 and 1994, the IMT advanced rapidly, transferring approximately 88% of the total irrigation districts area to WUAs (Johnson, 1997; Arredondo & Wilson, 2005; Martínez-Miramontes et al., 2020). However, starting in 1994, the transfer of irrigation districts slowed down due to the change of government experienced in the country (Rap & Wester, 2013). Currently, 99% of the irrigation districts area has been transferred; only two districts have not been fully transferred: ID003 Tula, Hidalgo and ID018 Colonias Yaquis, Sonora (Pedroza-González & Hinojosa-Cuellar, 2022; Palacios -Velez, 2020). The structure of the Mexican WUAs and SRLs is similar in each district, and it slightly varies depending on the site (CONAGUA, 2013). Figure 1 and Figure 2 are shown a common structure of a WUA and SRL (Palacios-Vélez, 2020).

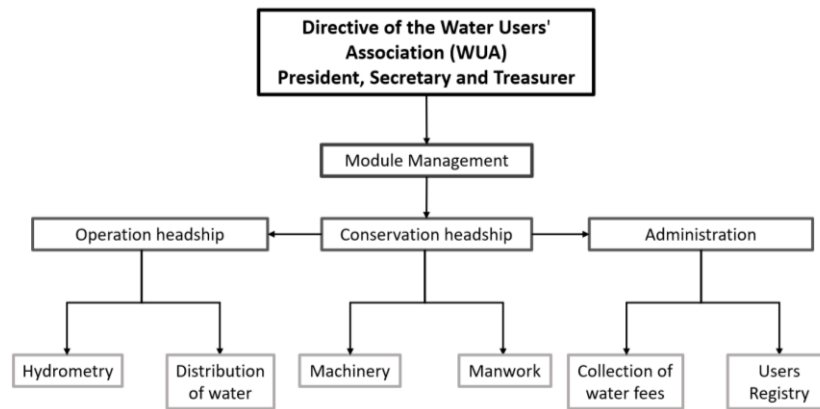


Figure 1. Organization of the WUAs by IMT in Mexico (Palacios-Vélez, 2020).

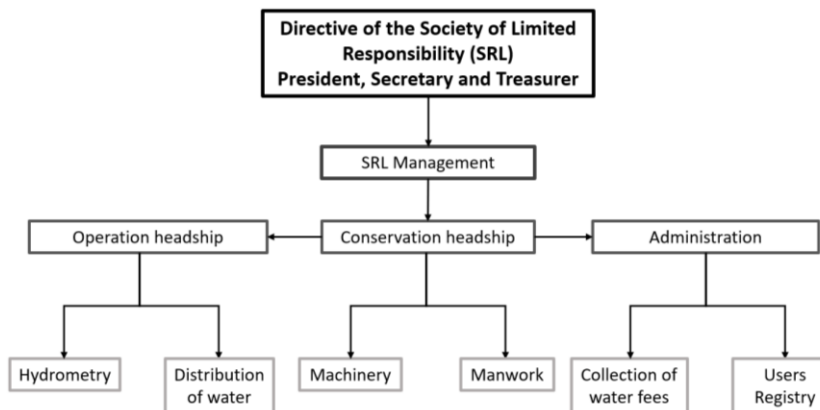


Figure 2. Organization of the SRLs by IMT in Mexico (Palacios-Vélez, 2020).

1.3. Policy entrepreneurs in water policy change

According to Brouwer (2015), Kingdon (1984) was one of the pioneers in applying the term “policy entrepreneur” in the public sector. He points out that policy entrepreneurs are individuals who promote ideas, taking the risk of assuming the position of support and

being willing to invest their time, energy, reputation, and even economic resources in order to obtain in future a promotion, job security or due to merely personal satisfaction. In addition, he points out that they represent a cornerstone in the policy-making process. Similarly, Mintrom (2020) argues that policy entrepreneurs are people who have a solid position regarding a novel idea, assuming the risks related to the introduction and development of the proposed idea. For his part, Brouwer (2015) introduces policy entrepreneurs as “risk-taking bureaucrats that seek to change policy and are involved throughout the policy change process” (p. 3).

Furthermore, Huitema et al. (2011) point out that policy entrepreneurs are individuals or collectives that affect policy transitions driven by his/her/their agency through a set of strategies (see generic strategies of policy entrepreneurs’ section), which operate according to the institutional setting where they are found. According to him, policy entrepreneurs are also called “change agents”, “policy advocates”, “boundary spanners” or “visionary leaders”. Moreover, the authors argue that policy entrepreneurs can be found outside and inside of government, such as politicians, bureaucrats, NGO members, farmers, researchers, academics, or citizens, and can either implement or block transitions. In addition, through well-defined cases, they claim that there is strong evidence of the imperative role of policy entrepreneurs as individuals and collectives in policy transitions.

While for Brouwer (2015) policy entrepreneurs are merely bureaucrats, for Huitema et al. (2011) represent a wide variety of actors that can be considered policy entrepreneurs. Likewise, from the definitions of Kingdon (1984) and Mintrom (2020), there is no marked difference between the type of actors that define policy entrepreneurs in water governance. In general, the convergence of the mentioned authors rests that policy entrepreneurs are people who advocate for prominent ideas to encourage a policy transition (e.g., water policy transition) representing a cornerstone in the mentioned process.

2. Methods

In the present investigation, policy entrepreneurs’ strategies to encourage policy change of the Irrigation Management Transfer (IMT) in the Mexican irrigation districts were defined and analyzed based on the theoretical framework of Huitema et al. (2011).

2.1. Policy entrepreneurs’ theoretical framework: strategies of policy entrepreneurs

The theoretical framework proposed by Huitema et al. (2011) discusses five strategies of policy entrepreneurs to incentivize policy change (Figure 3).

2.1.1. Developing new ideas

The ideas generated in the water sector have been a cornerstone in policy transitions worldwide. At present, the discourses are created from the ideas that have taken power among a variety of actors that shape policy-making.

Some ideas are formed within and others outside the borders of a country. On the one hand, countries that have adopted water policies from abroad (exogenous ideas) generate dependence on international organizations, mainly implementing top-down transitions that need financial assistance and help through the reform process. Also, less commonly, policy ideas can be developed within a country, representing top-down transitions. On the other hand, when ideas come from within a country's borders, it is mainly considered a bottom-up approach, where past inspirations encourage the development of ideas. Subsequently, the results are disseminated and publicized in order to change the perception and mental models of people inside and outside their borders.

However, in cases where there is an intersection between the levels of national and international policymaking, it is often difficult to distinguish between a bottom-up and a top-down approach. "Success" stories publicized by policy entrepreneurs influence policy transitions in other countries.

2.1.2. Building coalitions and selling ideas

Huitema et al. (2011) point out three mechanisms of coalition-building by policy entrepreneurs. Some coalitions are generally formed by actors who share ideas, beliefs, and values, which are intertwined by a common disciplinary background.

The first coalition refers to the support and defense of a particular set of ideas; the similarities in beliefs form the coalition. The second coalition is an alliance between parties that do not share the same values, beliefs, or ways of seeing the world, but the convergence of a particular policy change interest shapes the coalition. Finally, the third coalition describes parties that do not share values, beliefs, or preferences but are dependent on each other to fulfill their different goals.

The role of each policy entrepreneur depends on the type of coalition where it is located. In coalitions where values, beliefs, and objectives are different, negotiation and compromise between parties represent an imperative process to maintain balance in relationships within the coalition.

2.1.3. Recognizing and exploiting windows of opportunity

In order to generate policy change, coalitions must land their ideas precisely when a given situation demands it and when society is more receptive to accepting changes. The windows of opportunity represent a crucial aspect in generating policy transitions.

Huitema et al. (2011) divide the windows of opportunity into problem and political windows. The first is about events or data that denote the urgency of action concerning a problem. The latter is made up of political leaders who emerge in a given social context. Likewise, through an intensive literature review, the authors point out that successful policy entrepreneurs have exploited a previously mentioned crisis in various cases.

2.1.4. Orchestrating and managing networks

The cases in which a policy change was achieved through the intervention of policy entrepreneurs denoted a substantial role of networks of individuals who challenged the current state of the context in which they wanted to intervene. Networks are often made up of government representatives (at different scales and levels), NGOs and/or researchers (Huitema et al., 2011).

Likewise, the groups of policy entrepreneurs denote two advantages. The first is that the positions of various actors configure an advantageous set of strategies to generate a trajectory for change. The second is that every actor has different abilities and skills to contribute to policy change, regardless of their positions. Moreover, Huitema et al. (2011) confirm to some degree that networks that operate outside of “formality” are essential to carry out policy change.

2.1.5. Recognizing, exploiting, creating and/or manipulating multiple venues

The issues are discussed in venues (or forums), which can be different types, such as scientific groups, negotiation and deal-making venues, or media venues. Successful policy entrepreneurs can manipulate the different venues in which they interact. Likewise, they embed personal ideas or the ideas of the coalition they represent where policy-relevant issues are discussed, ignoring the opinions of those who resist change (Huitema et al., 2011).

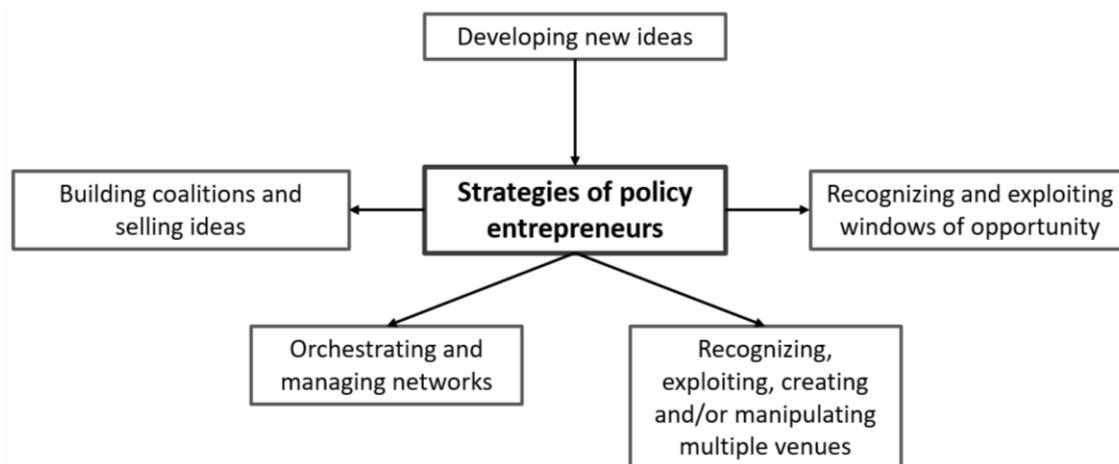


Figure 3. Theoretical framework of strategies of policy entrepreneurs for policy change (Huitema et al., 2011; p. 720-727).

3. Results and Discussion

3.1. Unpacked policy entrepreneurs in IMT in Mexico

The following actors were identified by extensive literature research as organizations that played a crucial role in the implementation of the IMT in Mexico (Figure 4):

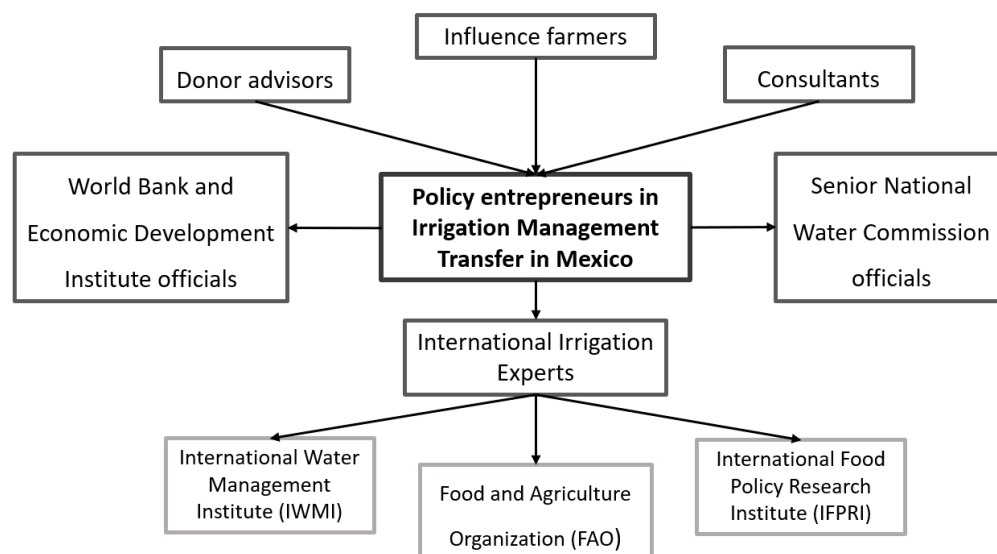


Figure 4. Policy entrepreneurs in IMT in Mexico (own elaboration).

3.2. Unpacked strategies of policy entrepreneurs

3.2.1. Idea

In the case of Mexico, the IMT was an approach from outside the country, privatizing and decentralizing irrigation districts from the government. In that sense, it was mostly a top-down approach, but with some inference from government policies developed by policy implementers that were interpreted and reconstructed based on the Mexican context of the time (e.g., creation of the CNA as the body in charge of IMT) (Rap, 2004).

3.2.2. Building coalitions

According to Rap (2004) epistemic communities were constructed, which can be understood as groups of professionals who share the same style of thought, beliefs or faith in relation to policy-relevant knowledge for a defined issue (Haas, 1992). Rap (2004) identified at least 3 epistemic communities in the IMT process: 1) Senior National Water Commission officials, 2) International irrigation experts and 3) Donor officials and advisors.

The first epistemic community consisted of “senior Mexican hydrocrats” belonging to the National Water Commission (CNA), who were involved in the development and implementation of the IMT. The community was mainly divided into groups of irrigation engineers and irrigation planners (Rap, 2004). The second epistemic community was defined by international experts specialized in user participation in irrigation management and irrigation policy reforms from institutions such as the International Water Management Institute (IWMI), the International Food Policy Research Institute (IFPRI), and FAO (Kloezen, 2002; Rap, 2004). The third epistemic community was formed by the World Bank and Economic Development Institute (EDI) officials (former educational part of the World Bank; nowadays the World Bank Institute-WBI) as well as donor advisors and consultants who were involved in the establishment, financing, and dissemination of the IMT model (Rap, 2004).

Likewise, influential farmers interested in operating and maintaining irrigation systems in the irrigation districts played an essential role in defining the "success of the Mexican IMT model", they also had a crucial role within the sphere of farmers' policy change adoption on the field (Rap & Wester, 2013). Consequently, these farmers were indirectly integrated as end-users in the abovementioned communities.

In this sense, each epistemic community represented a first-type coalition. At the same time, the set of three communities can be considered as a second-type coalition based on Rap (2006), who expresses that “although these three epistemic communities never constituted a collective, they shared a number of traits” (p. 285).

3.2.3. Window of opportunity

The window of opportunity recognized and exploited by policy entrepreneurs (mainly the World Bank and the group of international irrigation experts) that gave rise to the irrigation management transfer policy was the severe political and economic crisis that Mexico was going through in the late 1980s (Rap, 2006). This window of opportunity can be classified as a combination of problem and political window.

The Mexican government did not have the monetary resources to cover the basic management and operation needs of the irrigation districts, coupled with the low fees collected from irrigation users and a noticeable political instability in the country (Johnson, 1997). Between 1991 and 1994, Mexico received a total of US\$1.2 billion from the World Bank (World Bank, 1991; Rap & Wester, 2013).

3.2.4. Managing networks

Through missions, the World Bank and FAO were precursors in managing networks. In 1987 they advised the Mexican government means to reform irrigation policies for the re-establishment of loans within the irrigation sector (Rap, 2004). Consequently, diverse actors joined the policy change efforts when the window of opportunity was open due to the economic crisis.

The convergence of the coalitions' efforts formed networks that steered the establishment, financing, application, and promotion processes of the IMT based on embedded narratives. The diversification of the involved actors' positions configured strategies to generate policy change, as well as the personal skills and abilities of each person, regardless of their job position. For example, CNA officials identified and worked with influential farmers to implement the WUAs. Also, international irrigation experts from IWMI, IFPRI, and FAO implemented participatory approaches in irrigation management and irrigation policy reforms.

3.2.5. Shopping for venues

The World Bank and FAO not to mention CNA officials, international irrigation experts, donor officials and advisors contributed to policy debates regarding the necessary irrigation reforms to obtain loans for irrigation management purposes (Rap, 2004). These institutions defined the path to be followed by governments in "need" that would opt for a change in irrigation policy to amend social and economic problems within their borders.

The shopping of venue by policy entrepreneurship was effective in Mexico, considering the economic crisis suffered at the end of 1980, where there was a need to encourage a policy change in irrigation with the narrative that the IMT would improve operating conditions and maintenance of irrigation districts, where irrigation users would not be financially dependent on the government.

4. Conclusions

In the present research, a diversity of actors was identified that played a crucial role in the IMT of the Mexican irrigation districts, as well as the strategies used to implement that policy change based on the theoretical framework by Huitema et al. (2011). The identified actors are classified as policy entrepreneurs, which are World Bank-EDI, Senior CNA officials, international irrigation experts from IWMI IFPRI and FAO, influence farmers, donor advisors and consultants.

The IMT approach is a political idea from outside Mexican borders; hence it can mostly be considered a top-down approach. Three epistemic communities were identified, individually can be considered as first-type coalitions, while the set of the coalitions can be considered as a second-type coalition. The window of opportunity taken advantage of by policy entrepreneurs was the political and economic crisis of the late 1980s. The management of the networks occurred even before the start of the IMT process, with recommendations for a change in the irrigation policy by the World Bank and the FAO to the Mexican government to be creditors of loans. The convergence of coalitions, diversification of roles, skills, and capacities among policy entrepreneurs promoted networking that led to the establishment, financing, application, and promotion of the IMT. Moreover, the shopping of venue by policy entrepreneurship was mainly done through irrigation policy debates, where ideas were disseminated and subsequently adopted in the Mexican case.

Finally, policy entrepreneurs, through their narratives, have shaped the IMT in Mexico as a "success" case, which has served as an example to be replicated in other irrigation areas worldwide. Although a considerable portion of the irrigation districts has indeed been transferred, they present notorious management problems (coupled with the context of violence and inequality that the country is currently experiencing). Therefore, the success of the IMT in Mexico is debatable.

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