Myth and Ritual in Irrigation Policy and Water Reforms

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This article takes a constructivist perspective to study the effects of myth on policy reforms in irrigation and water management. It argues that myth can legitimize irrigation policy and water reforms by validating persuasive and authoritative models for policy reform. To develop this argument, the article draws on a case study of the Mexican policy of Irrigation Management Transfer (IMT) in the 1990s and focuses on the mythical aspect of its success. In different ways, myth underwrites the policy model and contributes to its persuasiveness when international institutions promote this model elsewhere. The article shows that authoritative institutions and
reformers ritually performed the myth of the Mexican IMT policy’s success at different policy events and by visiting idealized field sites in order to stabilize a policy model that is exemplary, persuasive and authoritative. Several historical examples demonstrate that the way myth works is not unique to this case, as irrigation and water management have always been remarkably rich fields for myth-making in public policy and reform. Myth legitimizes policy reforms in line with dominant ideologies, by recalling a heroic euphoria that tends to conceal the painful, powerful, and contentious effects of such measures.

Introduction

This article takes a constructivist perspective to study the making of myths and the effects that their use has on irrigation policy and water reforms. Policy documents do not usually present policy in mythological terms but rather in rationalistic terms of means, ends, values and a future state of affairs, suggesting a radical actor: the policy maker. Policy, however, does not only persuade with logos (reason, rational objectives), but also with pathos (emotion) and ethos (character, credibility, reputation). Myth plays a big role in this. For example, Edelman (1964) distinguished between policy elements that give a direction to action and elements that aim to arouse a state of emotion (pathos). According to Edelman, myths, rites and other symbolic forms underlie modern policymaking. However, social rituals sustaining myths are often associated with pre-modern societies, for example when myths are defined as “religious or sacred folk tales whose content concerns the origins or creation of the worlds, gods, a particular people or society” (Jary and Jary, 1995: 431). In contrast, irrigation policy and water reforms tend to be framed in terms of modern society and the ways in which policymakers assume control over society. Yet, modernization discourses include the equivalent of Gods – the most notable one being science (Van Donge and Kabuni, 2014). Recourse to science, according to Edelman, arouses a belief in the capability and credibility of leaders and policy makers (ethos), irrespective of their actual behaviour.

Unlike a positivist perspective, the intention of a constructivist perspective is not to prove that myths are false or to evaluate them as
truth-claims, but to analyze their use and effects in the policy process (Rap and Wester, 2013). De Neufville and Barton (1987: 181) argued that myths, understood as “stories which draw on tradition and taken-for-granted knowledge”, are unavoidable in problem definition and policy formulation and that this can have various effects. These authors suggested one way in which myths can function in social practices:

“a myth can conceal crucial contradictions and realities, legitimize policies that benefit the powerful, and support anachronistic perceptions of policy problems” (ibid.: 181).

However, myths can also:

“provide creative inspiration for policies, a way of translating community values into action proposals, and a powerful means to communicate to a broad public and rally support. They can mediate social and economic change by allowing new policies to carry familiar meaning” (ibid: 181).

In administrative reform, public administration scholars expect ‘useful myths’ to sustain a gap between rhetoric and practice. Administrative reforms provide unifying symbols, models and success indicators that channel human energy towards policy objectives. Therefore, myths have an existence beyond empirical evidence to serve particular political and ideological functions (Pollitt, 2001; Goldfinch and Wallis, 2010; Wallis and McLoughlin, 2010). When myth underwrites a policy narrative, it becomes hard to falsify. Roe (1991, 1994) asserted that particular stories – policy narratives – are influential in policymaking. They are considered to be a force in themselves and do not change even when they are confronted with “contradicting empirical data”, as “they continue to underwrite and stabilize the assumptions” for policymaking “in the face of high uncertainty, complexity and polarization” (Roe, 1994: 2). Roe (1991) specifies that policy narratives are more programmatic than myths, because they have the objective to get their audience to believe or do something. Yet, this does not discard that mythologization, the process of building a myth around policy, underwrites policy narratives and models.

A constructivist perspective acknowledges that there is a strong social dimension to myths: society stabilizes myths and vice versa through ritual performance. As the dramatic enactment of myth (Campbell, 1988), ritual
contributes to fix meaning and standardize policy interpretation. Myth comes alive and acquires meaning when it is publicly performed and mediated in order to become widely available as a persuasive exemplar. In this manner, myth can build support for policy interpretation as it speaks to the imagination and can become metaphorical for what people want to believe and how this keeps them together. Ritual has various aspects, such as repetition, role playing, staging, stylization, order, creation of meaning, as well as a collective dimension (Moore and Myerhoff, 1977). In modernistic scientific discourse, this happens through participatory procedures, presentations, seminars, conferences and so on.

“Because they are dramatic in form, rituals persuade us by our own senses, lulling our critical faculties. We perform in rituals, and doing becomes believing” (Myerhoff, 1978: 86).

Lulling can bring about an uncritical attitude, occurring partly unconsciously and partly through well-understood interests.

In line with these ideas, this article investigates the effects of myth on policy reforms in irrigation and water management. It argues that myth can legitimize irrigation policy and water reforms by validating persuasive and authoritative models for policy reform. To develop this argument, I draw on empirical material emanating from my longer-term research focusing on the Mexican policy of Irrigation Management Transfer (IMT) in the 1990s. This started with detailed ethnographies of transfer in two irrigation districts in Western Mexico based on extensive participant observation (Rap, 2007). Simultaneously, with colleagues, we carried out a study of the national and international trajectory of this policy and reviewed how it became a policy model used to promote similar policies around the world (Rap et al., 2004; Rap, 2006; Wester et al., 2009; Rap and Wester, 2013). In Rap (2006), I argued that the success of this policy model is only a success within the cultural and ideological understandings of a policy network. That article also emphasized the cultural performance of success in contemporary policymaking and showed how this contributed to build a policy network or epistemic community that sustains a policy model. Thereafter, broad and explorative reading focused my attention on the mythical and ritual aspects of policymaking. This article relies strongly on that previous work, which explains frequent self-referencing, yet it uses new insights to specifically understand the role of myth. Because of
limitations of space, the article gives little attention to the role of international policy networks that produce, sustain and circulate myths, as this was already largely covered in former articles.

Following from these basic conceptual ideas about myth in policy reform, the next section presents the case study of IMT in Mexico and illustrates how myth plays a role in multiple ways. The third section presents several historical examples of myth in irrigation and water management, to demonstrate the historical relevance and further the analysis of the findings. The article ends with my conclusions.

Myth, model and ritual performance of IMT policy

This section introduces the background of the IMT policy model in Mexico and uses this case to demonstrate that myth provides 1) models with a successful aura, 2) heroic exemplars and actors, and 3) rituals in which myth is enacted.

The IMT policy model and its success

During the post-World War II period, international agencies invested heavily in developing large irrigation projects and the hydraulic bureaucracies constructing and managing such systems. During the 1980s, the performance of this state-controlled irrigation sector was increasingly questioned, in line with the neoliberal doctrine aiming to ‘roll back the state’. Towards the end of the decade, a new policy was promoted to transfer these publicly managed irrigation systems to locally organized groups of water users in water user associations (WUAs), which assumed responsibility for their operation, maintenance and administration. Under a neoliberal policy regime, Mexico became the first country to start IMT on a large scale and with considerable speed. The Mexican IMT policy became widely propagated as a success and a model for other countries seeking to improve the irrigation sector’s performance, cut public expenditure and achieve effective water governance.\(^1\) Here I understand a policy model to

\(^1\) The aim is not to evaluate the ‘success’ of the Mexican IMT policy here. The initial quotation marks suggest that the meaning of this term is not necessarily factual or self-evident.
be a stabilized interpretation of policy-related events to promote similar policy elsewhere (Mosse, 2004; Rap, 2006).

“[M]yths offer life models” (Campbell, 1988: 13). This can help to stabilize a policy interpretation and make it persuasive by giving it an aura of success. Myths usually recount the courageous adventures and extraordinary deeds of a hero. The usual adventure of a classical hero starts with something that is lacking in normal life. The protagonist then sets off on a journey and leaves this problematic situation behind to experience a number of extraordinary challenges. In the process, the main character brings back a life-giving elixir or a divine solution that saves lives and leads to an improved condition (Campbell, 1988). This basic motif of the hero’s journey – leaving one condition of life and finding the life source that will generate an improved condition – has also shaped the IMT policy model.

The IMT policy model is framed according to a policy narrative with four consecutive stages leading to its success (see Rap and Wester, 2013). Successive stages validate the myth of intentional choice through politics (March and Olsen, 1989) and the idea that policy is controllable and amenable to rational analysis (Fischer, 2003). 1) Problem definition: At the end of the 1980s, irrigation districts in Mexico were in difficulty because of an economic crisis. The failure of public governance of irrigation districts led to poor irrigation performance and decreasing levels of productivity because government bureaucracy lacked the incentives and responsiveness necessary to optimize management performance. 2) Policy formulation: As part of the neoliberal reforms of President Carlos Salinas’ administration (1989–1994), the Mexican government became the first to courageously commit to addressing this problem by adopting a policy to transfer the irrigation districts to organized groups of water users. 3) Implementation: At first, the government officials in charge faced a lot of opposition and complications but managed to overcome many of these initial problems. As a result, the transfer process was accelerated and the new water authority Comisión Nacional del Agua (CNA: National Water Commission) succeeded in transferring the majority of irrigation districts during one presidential term. Some 2.5 million ha of government irrigation districts (out of a total of 3.4 million ha) were transferred to WUAs. The speed of policy implementation was referred to as the ‘Big Bang’ and
impressed donors, consultants, water professionals and researchers alike. The CNA also increasingly managed to organize, both financially and administratively, the autonomous WUAs, thereby improving the performance of irrigation districts. These WUAs started to manage irrigation below the main head-works and significantly raised irrigation fees to finance the operation, maintenance and administration of the irrigation districts. 4) Evaluation: Consequently, Mexico’s IMT programme came to be considered a ‘success’ in water-policy circles, and the Mexican policy model became an international showcase for promoting neoliberal water reforms (Gorriz et al., 1995). The conditions that were believed to have led to this success became prescriptive guidelines for replicating the Mexican policy model in other countries, such as government commitment, a single autonomous water authority, financially self-sufficient WUAs, a solid legal framework and a promotional campaign. Fragmented and partial evidence of improved performance did not mitigate the international celebration of the Mexican model and the multiplication of references to its success (Rap, 2006).

Indeed, myth was at play in idealizing the origin, process and outcomes of the IMT policy, which we have fully elaborated and evidenced elsewhere (Rap et al., 2004; Rap, 2006; Wester et al., 2009; Rap and Wester, 2013). Myth framed a problem definition and connected it with common understandings and shared moral frameworks to propose potential solutions (De Neufville and Barton, 1987) leading to success. This policy myth has several aspects.

First, the IMT model publicly framed the economic crisis and public irrigation management as the policy problems, rather than the reduced public investment that could no longer sustain the irrigation districts. This problem definition led to transfer as the preferred policy solution. Second, the IMT policy literature recounts a “moral tale” (Kemeny, 1992) around the lack of fee collection under public irrigation management, leading to low investment in the irrigation districts. This established the need for higher irrigation fees and increased fee collection under WUA management. Low financial self-sufficiency became a sign of incompetent bureaucratic management, and financial autonomy of the WUAs a marker of managerial success. This symbolically illustrated the dominant neoliberal doctrine that problematized public management and celebrated private
efforts to make irrigation self-sufficient and independent of the state. The idealization of actual fee collection practices under user management occurred in line with neoliberal policy prescriptions. The WUA by-laws stated that water users pay their irrigation fees to the WUA before the first irrigation turn of the season. It follows that this ensures high fee collection rates, because farmers need to pay their fee before receiving any water, although in practice a significant group of water users continued not to pay their fees before irrigation. This was still not a generalized custom. WUAs still dealt with the practical difficulties of refusing irrigation turns to free-riding water users.

The following pillars of the myth also contributed to problem framing and producing the ‘evidence’ of policy success:

- Blueprint thinking, which assumes that a model is universally replicable when it is working successfully in one place, is influential within the engineering discipline (Mollinga and Bolding, 2004).
- American pragmatism: an optimistic search for ‘what works’ and the promotion of experiences that ‘provide promising lessons’, usually internationally funded. The American Dream – that everyone who works hard can be rich and successful – informs this idea of success.
- Disciplinary images of an idealized order that appeal to policymakers, donors and experts. Such images allude to cultural myths, acquired tastes and ‘dreams of utter control’, making them credible and appealing within policy and expert circles, in spite of their lack of practicability. An example is volumetric water pricing in large irrigation systems (Moore, 1989; Rap, 2006).²

² The idea of simultaneously delivering, measuring and pricing water per volume counts as a rational and modern form of irrigation that promises to materialize efficient water use, exact cost recovery and increased net farm income. In an ideal hydraulic system of volumetric water control, users request water and are charged according to the volume delivered at their intake. This creates a financial incentive not to use more water than strictly needed and promises to solve both technical and economic inefficiencies of water distribution. These technologies project and sustain a neoliberal myth in which the technological and financial infrastructure of incentives are brought in line to produce efficient, rational and market-priced water use. Nevertheless, for most medium- and large-scale irrigation districts in...
A linear model of policy in which a policy neatly progresses though sequential planning stages, underlies the policy narrative as described above (Rap and Wester, 2013). This contributed to the myth that handing over irrigation systems to organized water users was a successful neoliberal policy solution in response to the financial and operational problems in the irrigation districts at the end of the 1980s. Framing the policy as an innovative neoliberal solution to the problems of public irrigation management reinforced the message of success regarding IMT policy. There are, in fact, important legal and organizational antecedents of user management and fee collection that predate the neoliberal epoch by more than half a century (Rap et al., 2004; Rodríguez Haros and Palerm Viqueira, 2007; Rap and Wester, 2013). The National Program for the Decentralization of the Irrigation Districts in 1989, the creation of the CNA in 1990 and a new Water Law of 1992, made the CNA formally responsible for initiating the transfer of irrigation management to WUAs. However, in several districts, the water user organizations had already developed a momentum - partly because of the aforementioned antecedents, - that was difficult for the CNA to control. Nevertheless, the CNA succeeded in incorporating these transfer initiatives and antecedents by deleting all references to pre-CNA user organizations, thereby appropriating all political and financial credit and ‘success’ for making and implementing this policy.

Labelling problematic outcomes of IMT, such as insufficient fee recovery or deferred maintenance as second-generation problems prevents falsification of the myth. These outcomes are thus presented as temporary threats to an inherently successful transfer, rather than serious indications of partial failure, mistakes or structural problems.

Mexico, volumetric pricing at the individual water user level remains a mythical promise and is not practical.
The myth of IMT success is further based on secondary level myths regarding the nature of irrigation in Mexico. Palerm (2008) questioned three of such myths concerning irrigation districts and associated with IMT:

1) Irrigation districts are large-scale irrigation systems.
2) The irrigation districts were, in their time, new irrigation systems.
3) The state always managed the irrigation districts until their transfer.

Palerm’s article focused on the ‘falseness’ of these myths, rather than exploring the structural dynamics that produced and sustained them. However, her analysis suggests that hydraulic bureaucracy played a major role in such myth-making to legitimize its control over irrigation districts and to demonstrate the success of the IMT policy.

Another secondary level myth is that the CNA promoted the transfer of irrigation districts from complete state control to control ‘at arm’s length’ in line with the ideology of New Public Management (NPM) (Rap, 2017). In part, this myth was performed through a set of governmental technologies that detailed the steps to transfer the irrigation districts (Rap and Wester, 2017). Being in line with neoliberal ideology was implicitly already seen as a sign of success.

The following section further develops the point that myths offer heroic and exemplary models for policy.

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3 Although these myths are problematic, they contributed to the success of the IMT policy: 1) Large irrigation systems are larger than 20,000 hectares, with the same head-works and a specialized staff. Palerm showed that the majority of irrigation districts in Mexico are small (1/3) and medium (1/3) scale and only around a third are large scale. CNA used the number of irrigation districts and added up their sizes to demonstrate their success in transferring large irrigation systems. 2) The assumption is that the hydraulic bureaucracy created these anew, whereas at least a quarter consisted of improvement and expansion works of existing irrigations of hacienda or community origin. Water user organizations already operated many of these systems. To report these areas as transferred contributed to the myth of policy success. 3) Before transfer there were many legal and organizational antecedents of user management. A policy and significant informal experiences existed for extended periods to organize irrigating farmers and have them administer parts of the districts.
Heroic and exemplary policy models and actors

Myths are about heroes, because they are worth writing about (Campbell, 1988). The IMT policy literature mythologized the Mexican IMT policy as a saga in which heroic male characters played a leading role in creating an exemplary policy model, which in fact largely was a painful cost-cutting operation. The exemplary masculinities of heroes, champions, reformers, and ‘great men’ “express widespread ideals, fantasies and desires”, which underlie a hegemonic masculinity that is characteristic of hydraulic bureaucracies and international lending institutions (Connell and Messerschmidt, 2005: 838; Rap and Oré, 2017).

The Mexican policy model glorifies the policy and its advocates in a language and an imagery that are full of a kind of heroic euphoria: ‘champions of reform’, ‘government commitment’, ‘exciting experiment’, ‘self-sufficiency’, ‘win-win situations’ and a ‘Big Bang’. This mythical language and the corresponding imagery that came to underlie the IMT policy narrative, generated a positive sense of victory and glory (pathos). We are able to observe the influence of how contemporary public media present sports, drama and politics. In their prestigious role of reformers, several senior CNA officials increasingly functioned as authoritative figures who performed the success of the model. Hence, they were invited to, and organized, international congresses and training seminars to report on their experiences with the Mexican model and its lessons. Also, the CNA itself received such heroic praise as the first ‘modern and catalytic institution’ to become a single ‘autonomous’ water authority (ethos). In part, this was a self-congratulatory act, as the CNA importantly contributed to the policy model. Further, President Salinas and his government (politically committed to reform) benefited from the international prestige that the success of the IMT model generated, thus crediting his heroic profile as a neoliberal reformer and candidate for the World Trade Organization presidency. Further, the World Bank benefited significantly. As components of ‘the Mexican success’, the newly introduced sector-wide approach and time-slice loans became fashionable policy and reform instruments. From the early 1990s, the Mexican water reforms spearheaded a shift from project-specific lending towards a sectoral investment approach aimed at supporting policy and institutional reforms in recipient countries.
Following this heroic narrative, the WUAs in the irrigation districts also received praise for their achievements. WUAs could become ‘financially autonomous’ and ‘self-sufficient’ organizations, by increasing fee levels and collection among the water users. When successful at this, they could rely on their own staff and budget, no longer being dependent on the government. The narrative imagines a collective of fee-paying and voting water users, who make the management that they elect accountable for the services they provide. The expectation therefore was that these new non-governmental irrigation organizations would significantly improve irrigation management. Strikingly, success is only ascribed to those who follow the neoliberal doctrine, as compared to those who do not; this indicates the ideological nature of myth making (Rap, 2006, 2017).

The policy narrative celebrated the speed and magnitude of the transfer – a Big Bang – as a miraculous proof of its success. Although the initial progress was slow, the process accelerated during the second half of 1991 and a switch was made from a gradual process to fast-track implementation. By 1992, the speed and scale of the transfer and the improved levels of financial self-sufficiency surpassed the original planning of the time-slice loan and surprised the officials of international institutions (Rap et al., 2004). Only later was this unexpected acceleration identified as the cause of many unintended side-effects, such as insufficient fee recovery or deferred maintenance, frequently framed as ‘second-generation problems’. Such a framing of these problems prevented the falsification of the myth and its continued celebration. Even though the tempo and magnitude of reforms may have had a detrimental impact on policy outcomes, they nurtured certain cultural and ideological standards for measuring success among ambitious senior policy makers. A remarkable way to celebrate the speed of IMT policy implementation was to visualize strongly contrasting images of moving animals to represent different national cases of irrigation reforms, among which Turkey, Mexico and the Philippines. A World Bank PowerPoint presentation in a scientific seminar depicted these countries as ranging from a speeding cheetah to a slowly creeping tortoise. This graphic contrast instantly identified the speedy as being successful. At a mythological level, animals served as symbols that embodied the speed of policy models. The presentation
amused the audience, but at the same time left it dazzled by these crude but persuasive presentational devices.

“No one possessed the presence of mind to counter this powerful imagery of success with Aesop’s fable of the hare and the tortoise” (Rap, 2006: 1317).

The above example shows how important the ritual performance of myth is, a point that will be further elaborated in the next section.

The ritual performance of a policy model

The generation and diffusion of the IMT model crucially depended on the ritual enactment of the myth of success. This occurred at different international events through the performance of: the success of the policy, the authority of institutions, the heroic roles of policymakers and reformers and the autonomy and self-sufficiency of organizations. All these mythical qualities associated with moral stories about the success of heroes contributed to the persuasiveness of the policy model:

In 1995, the Economic Development Institute (EDI, the educational arm of the World Bank) and the CNA jointly organized a one-week training seminar in Mexico on Participatory Irrigation Management (PIM) (Gorriz and Groenfeldt, 1995). This seminar served to perform the success of the IMT/PIM model. The audience consisted of national policymakers from India, Pakistan, Morocco, Egypt and Indonesia and World Bank task managers working in different regions of the world. The objectives of the seminar were to learn and understand the Mexican experience and to study it as a case of best PIM practice. Several elements were important in the promotion of the Mexican model.

Firstly, the presentation of the policy model by senior officials of authoritative institutions added to its cogency. The EDI Director’s presentation informed participants about what the World Bank was expecting from countries in terms of future loans for the irrigation sector. The promotion of international exemplary models exemplified the

4 This section builds strongly on earlier work (Rap, 2006; Rap and Wester, 2013).
ambition of the World Bank to become ‘the knowledge Bank’ standing ‘at the forefront of ideas’. Furthermore, bank officials also performed this expert authority (ethos) to persuade policymakers of the soundness of the policy model (Mehta, 2001; McNeill, 2003). Several CNA officials presented their views in their publicly acknowledged roles of national reformers or champions of reform.

Secondly, field visits to privileged pilot areas demonstrated the success of the policy model (Gorriz and Groenfeldt, 1995). However, these pilot areas, often in the North and Northwest of Mexico, were historically privileged, more modern, more commercial and better maintained and therefore not typical of Mexican irrigation as a whole. The CNA transferred these pilot districts first, thereby providing and promoting the necessary early successes nationally and internationally to persuade and enrol support for the policy. In 1990, the El Grullo district in Jalisco was one of the first irrigation districts transferred and became one of these pilot sites. On 21 January 1991, President Salinas visited the region and symbolically handed over the irrigation district to the WUA. This public ceremony and several similar publicized events afterwards promoted the benefits and performed the success of the transfer policy. As part of a promotional campaign, the CNA frequently organized visits for water user groups from different parts of the country to these pilot areas to see how exemplary WUAs were working. On the one hand, this generated domestic support among water users as well as for the programme and facilitated the more difficult transfers (Castro, 1995; Vermillion and Sagardoy, 1999). On the other hand, visits of loan review missions and international delegations secured financial support and international interest in the Mexican policy.

Thirdly, consecutive seminar elements built up pressure to policy commitment. From field visits and presentations of the guidelines for successful transfer, participants were led to draw up national action plans. The resulting positive excitement and inconsequential enthusiasm of the visiting policymakers generated by the mythical prospects of IMT were skilfully channelled into commitment towards the desired policy reforms. At that point, ‘handy check lists’ of lessons from Mexico were convenient in activating the inspired policymakers. As a result, the national teams of policymakers adapted the guidelines to their own countries. The seminar
in Mexico was followed by national seminars and workshops in each country to finalize, implement and evaluate national PIM action plans.

Because of these efforts, the excitement, inspiration and altered opinions produced among policymakers resulted in a shift in policy agendas in several countries. As the slogan goes, seeing is believing (EDI, 1995; Groenfeldt, 1998):

“Bringing policy makers into contact with PIM cases can be a powerful ingredient in swaying long-held opinions. Study tours, if carefully arranged and the right people are involved, can make dramatic differences in the outlooks of individual officials” (Groenfeldt, 1998: 22).

For example, in 1992 the World Bank and the CNA invited around 50 senior Turkish officials to Mexico, both political leaders and hydraulic bureaucrats. Study tours helped to create “a vision of what was possible” among them and provide “examples of how to undertake” a similar programme (Svendsen, 2001: 12). The visits to Mexican pilot sites inspired Turkish officials to emulate and adopt an ambitious and accelerated PIM programme (Groenfeldt, 1998), not unlike how Andhra Pradesh later adopted a similar Big Bang reform (Molle, 2008). Nonetheless, myth idealized the IMT policy, and the Mexican policy model was malleable in its adoption, as neither the Mexican nor the Turkish policy achieved fully autonomous WUAs (Rap, 2007; Molle, 2008).

Visual and digital technologies played an additional role in the promotion, visualization and diffusion of a policy model and its mythological properties. An example is the video production with the telling title “Participatory Irrigation Management: ‘Seeing is Believing’” (EDI, 1995). With rapidly alternating pictures, selected from field visits to pilot areas, it presents very graphic contrasts of the situation before (failure) and after (success) IMT. In my view, these selected pictures effectively stand for the larger symbolic promises that IMT is to fulfill: waving wheat implies productive irrigated agriculture; modern irrigation technologies stand for efficient irrigation; computers symbolize transparency; and modern, light machinery demonstrates improved maintenance (Rap, 2006). These symbolic images reappeared during numerous policy events, PowerPoint presentations, engineering anecdotes.
and water user accounts on the success of the IMT policy. In practice, these images project an idealization of actual managerial practices. However, these appealing and dynamic visual documents of the Mexican experience reinforced a powerful myth of success; the subliminal effect often results in seeing becoming believing.

In 2002, the World Bank organized another international workshop in which the Mexican IMT myth was further enacted. A former senior CNA official, now a consultant to the World Bank, gave a presentation. Off-stage, in the corridors of the workshop, he confirmed his own role in deciding upon the transfer before President Salinas ‘bought’ the idea. The international audience showed great interest in the Mexican IMT policy and respect for the fact that the official had instigated this successful policy. One attendee asked him about the main drivers behind the political will for the transfer in Mexico. He responded that there were several: to start with, ‘the love and care for our country and the irrigation systems’. He explained that the irrigation systems were destroyed when the CNA fell under the Ministry of Agriculture. The way to solve this was to transfer the districts and to give the WUAs autonomy and their own resources. For this purpose, they had to reduce the field staff of 40,000 to 4,000 canaleros\(^5\). The presenter then reminded the audience that another important driver was self-sufficiency and that the WUAs, as service providers or enterprises, have to collect charges. Initially, the WUAs thought that machines were the most important, with offices, infrastructure, canals and dams, but now they think water is the most valuable resource that they control. He concluded that nowadays it is more important to become president of a WUA than a member of congress or a mayor. In speaking like this, the policy maker repeated the narrative that legitimized their policy interventions during the 1990s.

This ritual enactment draws on contradictory myths of statist and market development. First, it mobilizes the statist myth in which hydraulic bureaucracy embodies a national hydraulic mission: \textit{the love and care for our country and the irrigation systems}. In their heroic struggle and

\(^5\) The field staff which is responsible for water distribution.
optimism to champion a policy to save the irrigation districts, senior CNA officials had to convince the president and overcome the resistance of the opposing Ministries and unions. Subsequently, the senior policymaker heroically portrayed the WUAs as financially self-sufficient, service-providing enterprises, fitting a neoliberal model.

Four historical examples of how myth legitimizes policy reforms

The IMT policy in Mexico provides an insightful example of the use of myth and ritual, but is not exceptional or novel. Historically, irrigation and water management have been remarkably rich fields for myth-making in public policy and reform. The article also suggests that several myths in irrigation and water management are subject to international trends, as they increasingly emerge and circulate in globalized policy networks, as in the IMT case. Here are four historical examples of how the use of myth legitimizes and provided authoritative models for irrigation policies and water reforms.

Wittfogel’s *Oriental Despotism* (1957) is a classic interpretation of the effects of irrigation on political life. In his view, political authority and state control arose relying on water control in Eastern hydraulic societies. Chang (1983) challenged this interpretation by arguing that the symbolic work of art, myth and ritual gave rulers moral authority, coercive force and exclusive expertise of the spiritual world, and this implied authority over flood control. Descent from a mythological ancestor and common descent in clans gave a special quality or character (ethos), which was translated into moral authority. Myths about heroes honored the meritorious deeds of lineage ancestors which provided the *raison d’être* for such lineage groups. Rulers publicized and brought to life the stories of legends in rituals, which mobilized various powerful symbols of rule. Chang also detailed the emergent association between writing, knowledge and power in these early states. Ministers and officials cited the exemplary behaviour of ancient model kings, which supported their policy advice and gave moral authority to the contemporary rulers. The study of the past became a source of moral and political authority for the ruling elite, because past successes and failures provided guidance for the present. Therefore, the mythical world of descent, heroism, monopolization of writing and...
knowledge led to flood control instead of flood control leading to the emergence of ruling dynasties in control. This first example echoes the Mexican IMT experience, as it indicates how political authorities mythologize their divine and supreme origins, knowledge and other exemplary qualities (ethos) and recur to past ‘successes’ and ‘failures’ in order to legitimize their policies.

More recently, European colonialism forged a strong connection between its civilizing mission and irrigation development (Ertsen, 2006). The common myth that Africa, excluding Egypt, was essentially an empty continent without history was materialized in mathematical designs of irrigation systems with straight lines and square plots composing a geometric landscape. Colonial governments translated their burden of bringing civilization into developing the natural wildness and filling the empty landscape with modern irrigation. A magnificent quote, which recalls the idealizations and glorifications of success in the IMT case, conveys the legendary status of Gezira Irrigation Scheme as a development model by referring to the “great success” of this “creative achievement”. The “rich fields” and “smiling faces” of the former nomads demonstrate the success of this “great experiment” (Gezira, 1959, quoted in Ertsen, 2006: 150). It is further striking that colonial empires legitimized their policies by (re-)creating new irrigation systems in the image of a mythical exemplar. For the French colonizers, Northern Africa was supposed to have been and could potentially be restored as the “Granary of Rome” or “Eldorado” (Wesseling, 2003, quoted in Ertsen, 2006) and Morocco was imagined as “a little Egypt” in reference to the wealth that cotton once generated in the Egyptian Nile Delta (Swearingen, 1984, quoted in Ertsen, 2006). The second example of this section shows that the myth of an empty continent, together with exemplary models and idealized irrigation systems legitimized colonial irrigation policies as a mission of civilization.

Chambers (1988, 2013) has also convincingly shown how myths play a major role in irrigation and water management. Myths are in his experience critically connected with errors and blind spots that policy and practice sustain. For example, he learnt through unstructured field visits in India that warabandi, a rotational system of timed and equitable irrigation turns, was in part a myth, as its practice was very different from its elegant theory, as advertized by Indian government engineers. Chambers did not
find the particular conditions of the North-West Indian *warabandi* in other parts of South Asia, yet experts came to regard it as exemplary and believed, or acted as if, *warabandi* could spread throughout India. Error, by repetition and frequent visits to unrepresentative ‘islands of salvation’, is very similar to the pilot areas in Mexico and other parts of the world. A delusionary consensus emerges and a certain myth gains currency in development. Power and institutional interests inform research designs to ensure making interventions a ‘success’, hence secure major investments and loans. This research set-up includes several flaws and biases that generate ‘false’ findings to ensure the success of, and legitimize, costly and dysfunctional projects. This combination of ignorance, error and myth in irrigation has significant material implications and can lead to large resource misallocations. Again, in this third example myth validates the making of exemplary models that are made visible and persuasive, in this case through ritualized pilot projects.

Moore (1989) described how a myth developed around an ideal of good irrigation management in Taiwan. Central to the myth is a democratic ideal: irrigation associations are cooperative institutions owned by their farmer-members, directed by representative assemblies elected by members and financed through the fees paid for irrigation services by members. The staff is therefore highly accountable: there is a double responsibility to the membership through both electoral and financial channels. If the performance of individual staff is unsatisfactory, then the members can sack them because the collective salary fund of the staff is derived from the fees paid by members. Individual members who try to free-ride by withholding fees without a valid reason may be deprived of water, and the interests of the whole can thus prevail over particular interests. This was a myth however, based on an experience of a very privileged water cooperative in Gujarat, India, that was not replicable. The Taiwanese government propagated the myth to morally underwrite the neoliberal doctrine on volumetric water pricing in large-scale irrigation. The actual mechanisms for controlling management depended on wider political concentrations of institutional power rather than on the impersonal working of quasi-markets and collective action. This Taiwanese myth corresponds to ideas about accountability in Mexican WUAs (Rap, 2017) – indicating the international production and use of such nirvana
concepts by development agencies to legitimate new irrigation reforms (Molle, 2008).

Conclusion

This article argues that myth can legitimize irrigation policy and water reforms by validating persuasive and authoritative models for policy reform. To reinforce a convincing model for change, myth uses both pathos and ethos. Powerful symbols and rituals arouse a state of emotion, enthusiasm and excitement (pathos) that channels human energy and support for stated or unstated policy objectives (Edelman, 1964). In the Mexican case, the ritual performance of policy contributed to its success by celebrating the achievements of heroes, champions, exciting experiments and ambitious models (ethos) as well as drawing the contrast with past failure. The resulting heroic euphoria worked to conceal the painful, powerful and contentious effects of the water reforms. In the process, the CNA also reaffirmed its credibility and reputation (ethos) by making policy models authoritative through science and expertise or by framing the institution as the ‘single and autonomous water authority’ or a ‘modern and catalytic institution’. During these years, the World Bank also ‘carved a niche’ for itself in policy transfer as ‘the knowledge Bank’, standing ‘at the forefront of ideas’ (Mehta, 2001; McNeill, 2003). This article suggests that such ideas include myths.

Mythologizing the IMT policy validated a narrative with a storyline, methodical stages, key actors, powerful symbols and a moral plot that symbolically exemplified a dominant ideology (Long and Van der Ploeg, 1989; Kemeny, 1992). Myth framed policy problems, such as the failure of public irrigation management or the lack of fee collection and linked this with a moral framework that defined self-evident policy solutions, such as transfer, user-fee payment and self-sufficient WUAs. Myth also influenced policy implementation, for instance through the graphic symbolic images and contrasts used to promote accelerated IMT implementation. The speed and magnitude of the Mexican policy implementation became undeniable proof of its success. Although speed is no guarantee of positive outcome, this myth was effective in terms of policy transfer, for example by persuading Turkish officials to adopt an accelerated transfer. Even
before any formal policy evaluation the success of the policy was enacted as a heroic saga and this encouraged policy transfer to other places (Dolowitz and Marsh, 2000). The ritual performance of myth further mobilized visual symbols, exemplary authorities and success models at symbolically significant sites in order to stabilize meaning, fix a narrative and promote a policy model. The policy’s success was the result of international policy conferences, pilot projects, field visits, PowerPoint presentations by policy authorities and professional events, thereby reinforcing the exemplary and persuasive nature of the policy model.

International examples from Sudan, India, Taiwan and Mexico demonstrate that the IMT policy in Mexico is not a unique case and suggests a wider relevance of the analysis, as irrigation management and water control are historically rich fields for symbol, myth and ritual. Nation-states and ruling elites have always engaged in crafting myth to legitimize their rule and reform. Irrigation policy and water projects have often helped to symbolically express, visualize and bring alive such myth and illustrate the ideology that underlies their rule. In the case of Mexico, senior segments of the hydraulic bureaucracy fabricated a policy myth as part of an extended process of bureaucratic competition. However, this was no longer simply a national affair. In line with the neoliberal Washington Consensus of the 1990s, international policy networks of development banks, research and development organizations and government institutions (e.g. EDI, INPIM, IWMI, IFPRI, FAO, CNA) played a major role in co-producing policy myths, best practices, success stories and their globalized transfer. Nevertheless, the colonial and post-colonial examples presented here suggest that the globalization of policy myths is no recent invention.

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