Received: 31 January 2023 | Revised: 30 June 2024 | Accepted: 12 August 2024

DOI: 10.1002/wat2.1757

ADVANCED REVIEW

WIREs WATER WILEY

Immunity through technification? A critical review of water governance discourses in Tunisia

Kais Bouazzi

Center for Development Studies (DVLP), Institute of Political Science Louvain-Europe (ISPOLE), UCLouvain, Louvain-la-Neuve, Belgium

Correspondence
Kais Bouazzi, Center for Development Studies (DVLP), Institute of Political Science Louvain-Europe (ISPOLE), UCLouvain, Louvain-la-Neuve, Belgium.
Email: kais.bouazzi@uclouvain.be; ksbouazzi@gmail.com

Funding information
Fondation Louvain/Louvain4water; UCLouvain (Fonds FSR-COVID); Wallonie-Bruxelles International (Bilateral cooperation 2019–2023, Belgium-Tunisia)

Edited by: Kelly Alley, Associate Editor, Wendy Jepson and Jan Seibert, Co-Editors-in-Chief

Abstract

After Tunisia's independence from France in 1956, the country was engaged in what has been termed the "supply management policy", that is, a maximum mobilization of water resources through large-scale modern hydraulic infrastructure. Towards the beginning of the 1980s, the country entered a crisis and had to adopt in 1986, under pressure from the International Monetary Fund and the World Bank, a "Structural Adjustment Program" (SAP) that prioritized measures to improve economic efficiency and liberalize the economy. Since then, Tunisian water policy has progressively shifted towards "Integrated Water Resources Management" (IWRM). This review critically analyzes the water governance discourses that have framed these policy interventions. I will draw on academic research and official and civil society reports to suggest that these discourses have been "rendered technical", stripping issues of any political (and therefore conflicting) character. When rendered technical discourses raise development projects and policies above the terrain of political contestation, the possibilities of action available to those opposed to them become limited. This depoliticization of development interventions through technical discourses narrows the public space of democratic debate. I will also argue that the "technification" (rendering technical) process is reversible. Opposition groups can challenge technical discourses with a critical approach that can reconfigure and alter the trajectory of governmental programs. However, critical discourses can, in turn, be rendered technical.

This article is categorized under:
Human Water > Water Governance
Human Water > Rights to Water

KEYWORDS
rendering technical, water discourses, water governance, water politics, water policy

1 | INTRODUCTION

Pursuing the hydraulic projects initiated during the French colonization, Tunisia engaged after its independence in 1956 in a maximum mobilization of water through large-scale hydraulic infrastructure (Besbes et al., 2014, pp. 79–80; Cherif, 1994; Elloumi, 2016, p. 42; Mouri, 2012; Pérennès, 1988; Treyer, 2001). Towards the beginning of the 1980s, the

decline in the main rents from which Tunisia benefited, particularly oil rents, set the limits for state-regulated extraverted accumulation (Dimassi, 1984; Jouili, 2008, p. 175). The country entered a financial crisis and adopted in 1986, under pressure from the International Monetary Fund and the World Bank, a "Structural Adjustment Program" (SAP) that prioritized measures to improve economic efficiency and liberalize the economy (Besbes et al., 2014, p. 101; Jouili, 2008, p. 175; Khiari, 2003). Since then, Tunisian water policy has progressively shifted towards "Integrated Water Resources Management" (IWRM; Besbes et al., 2014, p. 84; DG-EGTH, 1995; DGRE, 1998; Hamdane, 2019, p. 24; Mamou & Kassah, 2000; Mouri, 2012; Treyer, 2001, 2002, p. 12). In this context, the ministry in charge of agriculture started drafting a new Water Code in 2009 to provide a legal framework for this orientation.

Since 2011, "thirst protests" have multiplied, and new movements and campaigns claiming water rights have emerged (Ben Amor et al., 2019, p. 9; Elloumi, 2016, p. 83; Pacific Institute, 2024). The new draft Code, and water policies in general, have been criticized, notably for being too technical (e.g., Ghazouani & Rhili, 2019, pp. 58, 59, 69). Therefore, a literature review is essential to understand the foundation of these criticisms and the implications of the technical approach to water policies in Tunisia. It is also essential to understand how actors opposed to these policies resist (or not) this technical approach.

This article takes "language seriously" (White, 1992) regarding its role in political life. Whereas the positivist tradition in the social sciences viewed language as a neutral system of signs representing the world, language has lost its presumed neutrality with the advent of approaches rooted in postpositivist ontology (Cienki & Yanow, 2013; Hajer, 1993). In these approaches, any description or characterization of an object "is tied to a perspective on it" (Cienki & Yanow, 2013). This is significant because how an object is thought about and discussed "has important implications for how it is governed" (Coffey, 2016, p. 203). Framing political problems is a crucial part of the political process as actors attempt to impose their vision of reality on others (Hajer, 1993).

This review critically analyzes the water governance discourses that have framed different policy interventions in Tunisia. I will draw on academic research, and official and civil society reports to suggest that these discourses have been "rendered technical", stripping issues of any political (and therefore conflicting) character (Li, 2007, 2011). However, this process is reversible (Atkins, 2019; Li, 2007, 2011). Opposition groups can challenge technical discourses with a critical approach that can reconfigure and alter the trajectory of development interventions (Li, 2007; Atkins, 2019, p. 102). Nonetheless, critical scrutiny of development programs can, in turn, be rendered technical (Li, 2007).

This article is structured as follows. First, I will present the concept of "rendering technical" (Li, 2007, 2011) or "technification" (Joy et al., 2014), the lens through which water governance discourses in Tunisia will be analyzed. Second, I will critically examine the discourses that have framed different water policies in Tunisia. I will also see how the technification process has been reversed and how critical discourses can be rerendered technical. Based on Elloumi (2016), water governance discourses in post-independent Tunisia will be divided into three main categories: supply management (SM), demand management (DM), and IWRM, with the elaboration of the new Water Code.

2 | RENDERING TECHNICAL

As Mosse (2004) demonstrates, program documents regularly obscure the debates, doubts, and dilemmas of development practitioners. This does not preclude the fact that vast sums of money are spent, and large numbers of people might bear the consequences of these interventions based on experts' narratives to connect a specific problem to a proposed solution (Li, 2011). These narratives are central to what Michel Foucault termed "government", conceived of not as an institution but as an activity regulating people's conduct through calculated means (Ferguson & Gupta, 2002, p. 989; Foucault, 2008[1978], p. 318).

Central to "government" is what Tania Murray Li (2007, 2011) calls "rendering technical". This "shorthand" (Li, 2011) refers to a set of practices that represent "the domain to be governed as an intelligible field with specifiable limits and particular characteristics [...] defining boundaries, rendering that within them visible, assembling information about that which is included and devising techniques to mobilize the forces and entities thus revealed" (Rose, 1999, p. 33). According to Li (2007, p. 11), technically rendered discourses tend to avoid questions that experts cannot address or that might call into question the completeness of their diagnoses and/or the relevance and feasibility of their solutions. For the author, "questions that are rendered technical are simultaneously rendered nonpolitical. For the most part, experts tasked with improvement exclude the structure of political-economic relations from their diagnoses and prescriptions" (Li, 2007, p. 7). The orientations of international water expertise favor such an approach

reproduced institutionally within water bureaucracies, or "hydrocracies" (Molle et al., 2009). This leads to ignoring the political character of water allocation (Allan, 2003; Joy et al., 2014).

However, as Mouffe (2005, p. 10) argued, "political questions are not merely technical issues to be solved by experts. Proper political questions always involve decisions that require making a choice between conflicting alternatives". The technification process removes development interventions from the terrain of political contestation (Atkins, 2019). Thus, it allows them to acquire a kind of "immunity" to criticism. This depoliticization of water governance and related issues through technification implies "forming necessities, permanence, immobility, closure and fatalism and concealing/negating or removing contingency" (Jenkins, 2011, p. 160). Nonetheless, this process is reversible (Atkins, 2019; Li, 2007).

Li (2007, p. 10) argues that this "operation should be seen as a project, not a secure accomplishment". While experts tend to "exclude", "misrecognize", or "contain" some questions, these questions "do not go away" (Ibid.). From the perspective proposed by Foucault (1976, pp. 125–127), power is relational and, therefore, inseparable from resistance. For Foucault (1982, pp. 225–226): "[B]etween a relationship of power and a strategy of struggle there is a reciprocal appeal, a perpetual linking, and a perpetual reversal". To better understand the relation of "perpetual reversal" that Foucault describes and to make it subject to empirical inquiry, I draw on the distinction made by Li (2007, pp. 11–12) between "the practice of government" in which water discourses become technical as they are linked to calculated means for their realization and "the practice of politics" which refers to "the expression, in word or deed, of a critical challenge".

Li (2007, p. 11) argues that there are "moments" when opposition groups "reveal, in word or deed, their own critical analysis of the problems that confront them". These criticisms can reconfigure and alter the trajectory of development interventions (Atkins, 2019; Li, 2007). I call this process "repoliticization", that is, the reversal of a process of depoliticization by adopting discourses that reveal the competing interests underpinning water management and articulating these with an alternative vision of society (Atkins, 2019; Kenis & Mathijs, 2014; Pepermans & Maeseele, 2014).[1] These discourses render "audible" the political character of water resources management muted by technification. However, critical scrutiny of governmental programs can be "absorbed back into the realm of expertise" as newly identified problems are, in turn, rendered technical (Li, 2007, pp. 11–12). Rose (1999, p. 192) states that at these "switch points [...] an opening turns into closure". In this context, "turning into closure" means a relocation of an object from political arenas, characterized by debate, deliberation, and contingency, where action is possible, to nonpolitical arenas, characterized by the negation of contingency and the formation of necessities, where action is no longer possible (Bates et al., 2014; Beveridge & Naumann, 2014; Gamble, 2000; Hay, 2007; Jenkins, 2011; Wolf & van Dooren, 2018; Wood & Flinders, 2014).

3 | THE EXISTING DISCOURSES OF WATER GOVERNANCE IN TUNISIA

3.1 | Contextual information on Tunisian water policy

Till the 1980s, Tunisian water policy had focused on supply-side management through the construction of dams, transfer works, and deep tube wells (Abdelhedi, 1998; Atiri, 2006; Bachta & Zaïbet, 2006; Baduel, 1987; Besbes et al., 2013; Besbes et al., 2014; Cherif, 1994; Elloumi, 2016; Hamdane, 2019; Hassaïnya, 1991; Laajimi, 2007; Mouri, 2012; Treyer, 2001, 2002). According to official figures, this policy enabled Tunisia to achieve an overall drinking water supply rate of 98.3% in 2020, with a rate of 100% in urban areas and 94.7% in rural areas (MARHP, 2020, p. 113). Irrigated land (420,000 ha, 8% of arable land) accounts for almost a third of the value of agricultural production (Besbes et al., 2019a). In addition to drinking water and irrigation, water facilities are involved in flood control and energy production (Besbes et al., 2014, p. 80; Hassaïnya, 1991, p. 14). Sanitation has also developed considerably, especially in large urban areas, but unevenly in rural areas (Besbes et al., 2019a).

After the SAP's adoption in 1986, the state introduced water-demand management instruments while continuing water resources mobilization (Besbes et al., 2014, pp. 87–88, 101; DGRE, 1990; Elloumi, 2016, pp. 48–49, 91–95; Mekki, 2009). These reforms resulted in a reduction in state intervention in favor of private actors, the liberalization of agriculture, a reduction in state subsidies, the implementation of a water-saving program, a transfer of irrigation water and drinking water in rural areas management to users' associations, and a readjustment of water prices (Besbes et al., 2014, p. 88; Elloumi, 2011, 2016, p. 49; Gana, 2013, 2018, p. 60; Jouili, 2008, p. 175; Jouili et al., 2013; Laajimi, 2007; Mouri & Marlet, 2006). The "transition to demand management" (MARHP, 2019, p. 41) targeted the agricultural water sub-sector, given that the latter is the largest water consumer, with 82% of the quantity of water exploited

in 1990 (Atiri, 2006; Besbes et al., 2014, p. 84). The state intended to decrease its consumption share to 70% of the total quantity exploited by 2030 (Atiri, 2006).

The introduction of demand management instruments in the 1990s was the first step in the gradual "transition" to IWRM (MARHP, 2019, p. 41). The latter was introduced to meet the needs of different sectors, and reforms are being implemented to protect conventional water resources, further develop nonconventional resources (e.g., desalination of seawater or reuse of treated wastewater), manage risks, anticipate conflicts, and adapt the regulatory and planning framework (Besbes et al., 2019a). In this context, the ministry in charge of agriculture started drafting a new Water Code in 2009 to formalize this orientation legally.

The "Tunisian revolution" of 2010–2011 gave rise to various forms of protest that expressed marginalized populations' urgent demands for social justice (Ben Gadha, 2017; Gana, 2018, p. 61; Zemni, 2021). Different scholars (Gana, 2018; Gana & Fouillen, 2014; Zemni, 2021), organizations (Pacific Institute, 2024), and civil society reports (Ben Amor et al., 2019; Ben Gadha, 2017; FTDES, 2012; OTE, 2021, pp. 15–16) highlighted the recent rise in conflict and tension over water, due to repeated cut-offs, pollution, water grabbing, and other water-related problems (Chikhaoui, 2019; OTE, 2021, pp. 15–16), in a context of repeated droughts since 2015 (Ben Hammouda & Sebei, 2022; MARHP, 2020, p. 222). The protests formed the nucleus of new movements and campaigns claiming water rights and contesting the Draft Law on the new Code (Ben Amor et al., 2019, p. 9; Elloumi, 2016, p. 83).

In what follows, I will delve into the various water governance discourses in Tunisia and demonstrate how these have been rendered technical. Through the example of the Draft Law on the promulgation of the new Water Code, I will show how actors opposed to it have reversed this trend and how alternative discourses could be brought back into the realm of expertise.

3.2 | The "supply management" policy

A large body of literature on water management in Tunisia (e.g., Abdelhedi, 1998; Atiri, 2006; Bachta & Zaïbet, 2006; Baduel, 1987; Besbes et al., 2013, 2014; Cherif, 1994; Elloumi, 2016; Hamdane, 2019; Hassaïnya, 1991; Laajimi, 2007; Mouri, 2012; Treyer, 2001, 2002) showed how the Tunisian approach to water resources development after the independence was focused on the supply-side management through the construction of dams, transfer works, and deep tube wells. This orientation was part of a broader global trend, that of "industrial modernity" or "hydraulic mission" (Allan, 1999; Reisner, 1993; Swyngedouw, 1999a; Swyngedouw, 1999b) that went hand in hand with the emergence of "modern water" (Linton, 2010): an entity that is "deterritorialized, objective, homogeneous, anhistorical, and disembedded from social interaction" (Trottier, 2012, p. 181, my translation). It can be accounted for only through science and measurement methods (Ibid.). In this sense, water is "rendered technical": It must be "investigated, mapped, classified, documented, [and] interpreted" (Rose, 1999, p. 175).

In the early 1960s, the Secretariat of State for Planning and Finance stated that "the scarcity and irregularity of rainfall forced Tunisia to use every possible means to maximize its capacities to store surface water and exploit groundwater" (quoted in Hamdane, 2019, p. 20). Consequently, from the 1960s onwards, hydraulics took up between 30% and 44% of the budgetary appropriations allocated to the agricultural sector (Besbes et al., 2014, p. 83; Elloumi, 2016, p. 23) and benefited from international aid (Min. Agriculture, 1972).

In the early 1970s, the state set itself the objective of "food self-sufficiency" via agricultural intensification (Besbes et al., 2014, p. 80). Large-scale water infrastructure programs were put in place to achieve this goal. The *Plans Directeurs des Eaux* (Master Plans of Water), established during the 1970s (HYDRATEC–CEDRAT, 1977; ITALCONSULT, 1975, 1976; SOGREAH–SOTUTEC, 1975), identified available resources and programmed their mobilization and allocation between different uses and regions (Elloumi, 2016, p. 45). In addition to groundwater exploitation and dam construction, the state has built transfer networks of pipes and canals to "correct" regional inequalities both in terms of quantity and quality for drinking and agricultural water (Besbes et al., 2014, pp. 81–82; Mamou & Kassah, 2000; Treyer, 2001). Water transfers were legitimized with the rhetoric of *solidarité nationale* (national solidarity), which was supposed to be achieved through maximum technical control (Touzi et al., 2010; Treyer, 2001).

In addition, the SM policy was legally formalized by promulgating the 1975 Water Code (Law No. 75-16, of March 31, 1975). The latter established the principle of "maximum valuation of the cubic meter of water" nationally, constituting the legal basis for the interregional transfer and intersectoral allocation (Besbes et al., 2014, p. 83). It also established the public ownership of water resources, administered by the ministry in charge of agriculture and the institutions under its supervision (Abdelhedi, 1998, p.4; Elloumi, 2016, p. 82; Pérennès, 1993), and provided for the application of

concessions or annual authorizations for the use of the Public Hydraulic Domain (PHD; Loi no. 75–16, du 31 mars 1975, portant promulgation du code des eaux, 1975, Art. 52–53). The Code has been criticized for placing too much emphasis on agricultural water at the expense of other uses and for its technical character that was not in harmony with social needs (Ghazouani & Rhili, 2019, pp. 44–45).

Another body of literature (e.g., Ajl, 2021; Attia, 1983; El Amami, 1983; El Amami et al., 1979; Gachet, 1987; Kilani, 1986; Pérennès, 1988, 1992, 1993; Sethom, 1992) has vehemently criticized the supply-side approach to water in Tunisia. The authors argued that this policy translated the "modernizing ideology" of the Tunisian authoritarian post-colonial state. They have shown how the SM policy has (re)produced regional inequalities and strengthened the administration's technocratic power to the detriment of social actors' involvement in decision-making and the recognition of traditional knowledge and management techniques.

For instance, Gachet (1987, p. 155) argued that the "modernizing ideology" concerned all the aspects of the Tunisian society after the independence and constituted "the leitmotiv and the argument legitimizing the administration's interventions and the technocratic power in the different economic sectors" (my translation). For him, agricultural modernization adopted an industrial model that aimed to enhance efficiency, productivity, and profitability while mastering climate hazards and changing rural mentality, considered "crude", "brutal", "somewhat undisciplined", and "anarchic" (Gachet, 1987, pp. 152–157, my translation). According to Pérennès (1988, 1992), the power that engineers and other technical executives acquired led to centralized water management while crowding out the main social actors, especially the peasants.

Moreover, as Sethom (1992) showed, the SM policy has (re)produced regional inequalities. For him, the domination of coastal urban areas has historically been built up and perpetuated since the independence in different forms, notably through agricultural policies and the model of extroverted economic development, at the expense of the rural world and the interior regions (Ibid.).

The agronomist Slaheddine El-Amami was also critical of the neo-colonial pattern of state agricultural planning (Pérennès, 1993, p. 18), while being able to fit into the state logic and to adapt to political constraints by adopting a "superficially technicist" approach (Ajl, 2021, pp. 10–11). Together with J.P. Gachet and T. Gallali, he demonstrated how the state invaded the countryside with colossal dams and other massive hydraulic projects (El Amami et al., 1979). At the same time, the agronomist valued the ancestral, democratic, and local polytechnics of water retention and distribution, which, in addition to their ecological advantages and technological expertise, allowed for relative independence from central authorities (El Amami, 1983). These polytechnics were based on the close relationship between groundwater and surface water and responded to a climatic logic (Ibid.). They include the storage of excess rainfall in hill lakes or mountain reservoirs in sub-humid zones, the development of sloping land to prevent water run-off in semi-arid zones, and the harvesting of run-off water by impluviums in arid zones (Ibid.).

Official discourses of the time illustrate how the "imperative" of "modernizing" agriculture and the rural world have legitimized water technification as well as state intervention to discipline the "deviants" (cf. Foucault, 1975, 1976), that is, the "undisciplined" and "anarchic" rural society.

3.3 | The "demand management" policy

After the SAP's adoption, and within an international context recognizing the economic value of water (see ICWE, 1992, Principle No. 4), official reports (e.g., Abdelhedi, 1998; Besbes et al., 2002; DG-EGTH, 1995; DGRE, 1998; Hamdane, 1993; ITES, 2014; M. E.-H. Louati et al., 1998) and scholars (e.g., Mamou & Kassah, 2000; Treyer, 2001, p. 472) highlighted the need to move towards DM in Tunisia. For example, the *Eau 2000* (Water 2000) strategy (DG-EGTH, 1995) reaffirmed the need to continue mobilizing water resources but took into account a certain "saturation" of potentialities (Mamou & Kassah, 2000; Treyer, 2002, p. 12) and the reaching of a *pénurie structurelle* (structural shortage; Treyer, 2001). While it was perceived necessary to avoid wastage before mobilizing more costly non-conventional resources (Ibid.), water reallocations could only be done at the expense of agriculture, the primary water consumer (Besbes et al., 2014, p. 84).

Although it reflects a new orientation, the DM approach has also been translated into technical solutions (Mamou & Kassah, 2000; Treyer, 2001, 2002, p. 12). In reality, irrigation will continue to grow (in terms of surface area and crop intensity), but its efficiency is to be improved (Treyer, 2001). This was made possible through the Investment Code (Law No. 93-120 of December 27, 1993) and the amendment of the Water Code in 2001 (Law No. 2001-116 of November 26, 2001) promoting water-saving and describing water as a *richesse nationale* (national wealth; Besbes

et al., 2014, p. 103; Ghazouani & Rhili, 2019, p. 19). A "National Program for Irrigation Water-Saving" was also set up in 1995 to "rationalize agricultural water use with a view to economic benefit and to maintain demand for irrigation water at a level compatible with available long-term water resources" (MARHP, 2015, p. 14, my translation). The program subsidized water-saving equipment at the plot level (Atiri, 2006; Elloumi, 2016, p. 49). In 2004, 77% of irrigated areas (300,000 out of 385,000 hectares) were equipped with water-saving techniques (Elloumi, 2016, p. 78). This new orientation will also result in the gradual transfer of irrigation and drinking water in rural areas management to users' associations after 1989, as well as the increase in agricultural water prices to cover the management costs of irrigated areas (Elloumi, 2016, p. 49). In this capital-intensive sector, external participation was estimated at an average of 60% of public water investments between 1997 and 2011 (Besbes et al., 2014, p. 100).

Following the implementation of DM instruments, a body of research focused on how to improve allocation efficiency (Albouchi et al., 2003; Mellah, 2018), the economic impact of different irrigation water pricing formulas (Abbes et al., 2005; Thabet et al., 2005), and how to improve the performance of users' associations and set-up effective collective action mechanisms (Azizi et al., 2016; Ben Mustapha et al., 2015; Ben Mustapha & Faysse, 2017; Ben Nasr & Bachta, 2016).

Another body of literature (Canesse, 2010, 2011; Elloumi, 2011, 2016; Gana & El-Amrani, 2006; Gana & Fouillen, 2014; Jouili et al., 2013; Romagny & Riaux, 2007; Touzi et al., 2010) was critical towards the implementation of the DM instruments. For instance, Romagny and Riaux (2007) argued that the participatory management model has encountered difficulties of appropriation by users while being instrumentalized by local elites. Similarly, Canesse (2010, pp. 83–84) argued that what has been called "rural participation" is, in reality, "a territorial state redeployment and population control". The same author stressed the necessity to go beyond technical and quantitative issues to take politics into account (Ibid.). Gana and El-Amrani (2006) noted the advent of a *crise hydraulique* (hydraulic crisis) linked to the institutional (re)arrangements associated with the economic liberalization process. For the authors (see also Elloumi, 2011), instead of strengthening collective action, one can observe individual autonomization strategies (e.g., illicit deep tube wells) that generate more social differentiation and environmental degradation. For Elloumi (2011) and Gana and Fouillen (2014), the implementation of participatory management did not achieve the expected results. On the contrary, it has given rise to different conflicts (Ibid.). Similarly, Ayeb (2019) and Jouili et al. (2013) demonstrated how water has been both an object of dispossession and a means of exclusion.

As Elloumi (2016, pp. 91–95) noted, while the DM policy emphasized the role of actors at the local level, it was dominated by technical executives. According to the same author, this orientation has not changed the power balances (Ibid., p. 100).

3.4 | Integrated water resources management and the elaboration of a new water code

3.4.1 | The move towards IWRM

In the late 20th century, integrated water resources management (IWRM) was advocated by the inter-governmental organization "Global Water Partnership" (GWP), and then appropriated as a tool for "good governance" by most international organizations (Sehring, 2009, p. 26). IWRM promotes the integration of multiple aspects of management (e.g., multisectoral uses) and levels of governance, the promotion of watersheds as management units, and greater stakeholder participation in water management and decision-making (Mukhtarov, 2008). It also promotes demand management, as water is defined as "scarce", and thus should be considered an economic good (Woodhouse & Muller, 2017).

In Tunisia, IWRM has been recommended by different reports and strategic studies (e.g., DGRE, 1998; ITES, 2014; Louati et al., 1998; MARHP, 2017, 2019, 2020). The *Etude du Secteur de l'Eau* (DGRE, 1998) formalized the will to move towards IWRM through (i) strengthening measures for monitoring, control, and protection of resources, (ii) developing efficient uses, (iii) promoting decentralization by strengthening the role of users and the intervention of private operators, (iv) taking into account the economic, social and environmental aspects of water, and (v) controlling risks (Besbes et al., 2014, p. 84; Hamdane, 2019, p. 24). While stressing the need to move towards IWRM, the *Eau XXI* strategic study (Louati et al., 1998, p. 70) argues that socio-economic development and water scarcity will lead to competition between different users and the emergence of a water market. The state's role would be to adopt specific legislation for this market (Ibid.). The desire to move towards IWRM was accompanied by the adoption of a law setting up the concessions regime (Law No. 2008-23 of April 1, 2008), a new law on public–private partnerships (Law No. 2015-49 of November

27, 2015), a new Investment Code (Law No. 2016-71 of September 30, 2016), a law on the improvement of the investment climate (Law No. 2019-47 of May 29, 2019), and the elaboration of a new Water Code (Draft Law No. 66/2019; Elloumi, 2016, p. 50; I. Louati & Balcou, 2019, p. 9).

Critics argue that IWRM was introduced to liberalize access to the resource (Elloumi, 2016, p. 50) and promote public–private partnerships (Louati & Balcou, 2019, pp. 8–9). Elloumi (2016, pp. 50, 70, 84, 91) notes that IWRM was introduced following solid lobbying by donors and international organizations. One example is the report drawn up by OCED jointly with the GWP-Mediterranean (the Mediterranean branch of the GWP), promoting greater private-sector involvement in water management (OECD, 2014). For Elloumi (2016, pp. 94–97), the association of administrative officials and donors with some researchers skews the national debate and makes any defense of an alternative project difficult, if not impossible.

The dominant water discourses in Tunisia are "rendered technical". On the one hand, the first discourse intends to respond to water scarcity with approaches that emphasize increasing water supply within which water is seen as a product that can be exploited by technical means (Iyer, 2007; Joy et al., 2014; Menga, 2015). On the other hand, DM/IWRM, focusing on consensus, efficiency, and productivity, steer water management toward neoliberal approaches to management that promote an increased role for the private sector, pricing mechanisms, and monetary valuation of ecosystems and obscure the political and conflictual character of water allocation (Allan, 2003; Biswas, 2004; Conca, 2006; Molle, 2008, 2011; Mollinga et al., 2006; Sehring, 2009, p. 26; Trottier, 2012; Vos & Boelens, 2018; Wester & Warner, 2002).

As Boelens et al. (2016, p. 2) note, water problems often appear as techno-managerial and politically neutral issues that can be "objectively" solved with "technical knowledge", "rational water use", and "good governance". Water governance appears to be an uncontested, neutral, and natural process, insulated from societal or political biases, priorities, and choices (Joy et al., 2014; see also Boelens, 2015; Boelens et al., 2018; Roth et al., 2018; Vos et al., 2018; Zwarteveen et al., 2017). However, as we will see in the following section, the technification process is reversible (Atkins, 2019; Li, 2007). We will also see how alternative discourses can, in turn, be rendered technical.

3.4.2 | The draft law No 66/2019 on the promulgation of the new water code

After a lengthy drafting process (see Bouazzi, 2024, pp. 212–216), an official version of the new draft Water Code (Draft Law No. 66/2019) was submitted to the parliamentary "Committee on Agriculture, Food Security, Trade and Related Services" on October 03, 2019, and approved by the latter on June 17, 2021 (ARP, 2021, pp. 1, 8). At the time of writing, a new Water Code has not yet been enacted.

As the project carrier, the ministry in charge of agriculture presented the promulgation of the new Water Code as "necessary" and "urgent". The overhaul of the 1975 Code was deemed "necessary" to account for "new challenges and threats" (e.g., climate hazards, illicit uses) that were not addressed under the previous Code and "urgent" given that these "new challenges and threats endanger water resources" (MARHP, 2020, pp. 44, 51, my translation).

As its primary orientation, the Draft Law, as approved by the Committee, includes the objective of "integrated planning and management" based on "the unity of water resources" and "the best valuation of the cubic meter" at the national level (ARP, 2021, p. 81, my translation). It establishes other principles such as "good governance", "participatory democracy", "open governance", "subsidiarity", and "the separation of functions": planning, management, and regulation (Ibid., pp. 14–15, 50, my translation). About the latter, the Draft Law provides for the establishment of a regulatory body whose role would be "mainly technical": (i) setting up standards for water services management, administration, and efficiency, (ii) evaluating the quality and efficiency of water services, (iii) revising and regulating water tariffs, and (iv) resolving conflicts (Ibid., pp. 68–70). In addition, the draft law emphasizes the need for repressive measures and provides for an increase in sanctions and penalties (Ibid., p. 6), particularly regarding infringements of the PHD and the creation of a new agency to control it (ARP, 2021, p.6). As we will see below, this technical approach to managing the PHD and, more generally, of the Code has been challenged and reversed by actors opposed to the project.

Within a tense "post-revolutionary" context, new movements and campaigns claiming water rights emerged (Ben Amor et al., 2019, p. 9; Elloumi, 2016, p. 83; OTE, n.d.). These claims were accompanied by the publication of civil society critical assessment reports on agricultural (Helali, 2020) and water (OTE, 2021; Rhili, 2018; Vernin, 2020) policies, critical assessment reports (FTDES, 2021; Ghazouani & Rhili, 2019; Louati & Balcou, 2019) and articles in collective blogs and online journals (Abdelmoula, 2021; Derbali, 2021) on the new Water Code, and a charter for the "right to water" (OTE, 2019a). Instead of merely challenging the assertions of "necessity" and "urgency" through other technical

discourses, opposition actors were engaged in a repoliticization process. As I will explain in the following paragraphs, actors sought to delegitimize the new Code and alter the project with an alternative vision of society (cf. Atkins, 2019; Kenis & Mathijs, 2014; Pepermans & Maeseele, 2014).

Opposition actors explicitly criticized the new Code's technical character as well as the nonparticipatory and unilateral approach to its elaboration (e.g., Ghazouani & Rhili, 2019, pp. 58, 59, 69). Many civil society actors decided to work jointly on elaborating a *Code Citoyen de l'Eau* (Citizen's Water Code; Abdelmoula, 2021), a parallel and competing Code to the official one. Through the latter, they call, for example, for the provision of a free minimum quantity of water (50 L/day) for every resident, the establishment of an independent and sovereign body for water management, and the transformation of the Citizen's Code into a matter of public opinion (GnetNews, 2019; OTE, 2019a).

Moreover, the opposition illuminated the political background of the Draft Law while denouncing foreign interference in its elaboration. For example, experts and activists argue that the reflection on the new Water Code began as a prelude to the sector's privatization following the World Bank's recommendation (Derbali, 2021; Ghazouani & Rhili, 2019, pp. 58, 68). Other examples of donor interference in the new Code's adoption and decision-making in general were reported by journalists and Members of Parliament (MPs; see Abdelmoula, 2021; WMC & TAP, 2020).

In addition, opposition actors forwarded an alternative reading about the drivers behind water "illicit" uses and delegitimized the technical approach proposed by the new Code, that is, repressive measures and the PHD control agency. A report drawn up by civil society associations (Vernin, 2020) argues that, although the 1975 Code established (technical) measures to protect the PHD (e.g., authorization and concession regimes), groundwater illicit uses—estimated at around 19,000 in 2020 (MARHP, 2020, p. 20)—paradoxically correspond to the state's objectives: users' autonomization and responsibilization (pp. 9–13). The same report places these "illicit" practices within the neoliberal context of state withdrawal since the 1990s, which has led to this form of privatization and water grabbing driven by profitability (Ibid.). These actors repoliticized the issue by regrounding their opposition with the criticism of neoliberalism.

On the same topic, the Code has also been criticized for expanding the powers of the minister in charge of agriculture while at the same time drowning out responsibilities by creating a myriad of new institutions, such as a new agency in charge of controlling the PHD or the regulatory body presented above (Ghazouani & Rhili, 2019, pp. 63–64). Regarding the latter, some MPs have indicated that such bodies operate in competitive sectors and not in sectors monopolized by the state, which could be a gateway to the privatization of the sector (ARP, 2021, p. 68). Similarly, civil society actors accused the Code of "understanding the water issue from the point of view of economic logic, relegating the human rights component to the background" (Derbali, 2021, my translation). In this regard, while rejecting the commodification of water, the non-governmental organization "Tunisian Forum for Economic and Social Rights" (FTDES, 2021, p. 2) calls for the exemption of the water sector from public–private partnerships and the abrogation of concession contracts.

More than rendering visible a broader context, controversy, and political interests surrounding the project, the criticism put forward by the opposition was articulated with an alternative vision of society (cf. Atkins, 2019; Kenis & Mathijs, 2014; Pepermans & Maeseele, 2014). As an example, Rhili (2018, p. 209) places the current policies of the Tunisian water sector within a broader neoliberal context/ideology and water problems within a narrative of "social justice" and "a battle for existence" for populations in marginalized regions, such as the Gafsa mining basin (my translation). Others (e.g., Ghazouani & Rhili, 2019, p. 69; Helali, 2020, pp. 6–7; OTE, 2019a; Vernin, 2020) propose as an alternative, a policy of "Food Sovereignty" that breaks with the country's dependence on the international food market and the overexploitation of resources by exporting virtual water. One can note the examples of dates and olives cultivation, processing, and packaging (Ben Alaya et al., 2015; Ouertani et al., 2016; Vernin, 2020). These two crops are water-intensive, consuming 7 and 3.08 m^3/kg of product, respectively (Ben Alaya et al., 2015). In Tunisia, olive oil and date exports alone accounted for around 36% of agri-food exports between 2011 and 2014 in value and 88% of the virtual water implicitly exported (Ouertani et al., 2016, p. 199).

It is worth recalling here that *Food Sovereignty* is a principle promoted in 1996 by the anti-globalization peasant movement "Via Campesina" in opposition to the establishment of a global, free, and competitive market for agricultural products (Décarsin, 2012; Hrabanski, 2011). This principle refers to "the peoples", Countries' or State Unions' right to define their agricultural and food policy, without any dumping vis-à-vis third countries' (Via Campesina, 2003). Thus, "Food Sovereignty" repoliticizes the political debate on the food issue, which has long been depoliticized by the neoliberal trend (Hrabanski, 2011).

As argued in this article, the technification process removes development interventions from the terrain of political contestation and limits the possibilities of action available to those opposed to them (Atkins, 2019). As I have shown

through the case of Tunisia, rendered technical discourses tend to present governmental measures as "necessary" and "urgent" while allowing the projects to acquire a kind of "immunity" to criticism. This obscures other discourses, such as those promoting traditional water management techniques (e.g., El Amami, 1983; El Amami et al., 1979) or those supporting the right of inland regions to development (e.g., Rhili, 2018; Sethom, 1992).

However, this process is reversible (Atkins, 2019; Li, 2007). As I have shown in the case of the new Water Code, the discourses forwarded by the opposition reconfigured the Draft Law by revealing the link between the project and the political interests and actors and articulated these discourses with an alternative vision of society (cf. Atkins, 2019; Kenis & Mathijs, 2014; Pepermans & Maeseele, 2014). On the one hand, rather than being a mere technical project, the Code is presented as an undemocratic effort to commoditize water under foreign influence. On the other hand, by mobilizing discourses on "food sovereignty" and "social justice", actors altered the project's trajectory with an alternative vision of society. One would say that this opposition generates debate over alternative futures and, thus, renders audible the political character of water muted by a process of technification. The opposition succeeded not only in pushing the ministry's officials to listen to alternative visions (Ghazouani & Rhili, 2019, p. 60) but also in blocking the policy process several times, as in 2017 (Derbali, 2021) and in 2021 (TAP, 2021).

I argued in Section 2 that critical scrutiny of governmental programs could be "absorbed back into the realm of expertise" (Li, 2007, pp. 11–12). An example comes from a recent document (STUDI & GKW, 2022) published by the ministry in charge of agriculture as part of the new strategy for Tunisia's water sector, "Water 2050".

The document stresses the need to link the water vision for 2050 to a strategy of "Food *Sovereignty*". The explanation mentions that ensuring "Food *Security*" in Tunisia means both "*reducing imports* and *maximizing exports* of agri-food products", particularly with regard to olives and dates (STUDI & GKW, 2022, p. 5, my translation, italics added), which, as mentioned above, are water-intensive. Over and above the connection between "Food Sovereignty" and "Food Security" that the document establishes, one can note that a strategy of "Food Sovereignty/Security" as defined by the authorities does not involve a break with the over-exploitation of resources through the export of "bad" virtual water (Greco, 2012),[2] as suggested by civil society actors and explained above. On the contrary, it involves maximizing the export (and reducing the import) of agri-food products. According to the same document (p. 5), this could be achieved by "combining conventional and non-conventional" water resources, leading to a "significant enhancement of efficiency" and an "increase in production" (my translation). In addition to the shift in meaning, one can note here that the problem and its solution are once again rendered technical: developing conventional and nonconventional water resources to increase production and efficiency. This question has been addressed by Swyngedouw (2013b) in his study of Spain's use of desalination. The author argues that while desalination has been presented as a solution (or a "techno-fix", in Swyngedouw's terms) to the uneven distribution of water in the country, this has obscured the fact that the state continued to expand overall water usage. This example invites us to be attentive and critical of the conditions and relationships producing this kind of "solutions" (Meehan et al., 2023, p. 220).

4 | CONCLUSION

In this review of the existing literature on water governance discourses in Tunisia, I have argued that the official discourses that have framed different water policies have been rendered technical. As I have shown, rendered technical discourses tend to present governmental measures as "necessary" and "urgent" while allowing the projects to acquire a kind of "immunity" to criticism. When rendered technical discourses raise development projects and policies above the terrain of political contestation, the scope of action of those opposed to them becomes limited (Atkins, 2019).

However, this process is reversible (Atkins, 2019; Li, 2007). Through the example of Draft Law 66/2019 on the promulgation of the new water Code, I have shown that rather than merely challenging the assertions of "necessity" and "urgency" through other technical discourses, opposition actors sought to delegitimize the new Code and alter the project's trajectory with an alternative vision of society (cf. Atkins, 2019; Kenis & Mathijs, 2014; Pepermans & Maeseele, 2014). As Atkins (2019) argues, repoliticization remains a possibility for groups seeking to contest contemporary projects.

As others (Joy et al., 2014; Lahiri-Dutt & Wasson, 2009; Molden, 2007; Roth et al., 2018; Venot & Clement, 2013) argued, much of the literature on water and water-related issues is intervention-oriented, prioritizing issues of efficiency over equity, rights, and justice. This lack of attention is also due to a belief in market forces and technical "expertise" (Joy et al., 2014; Li, 2007, 2011; Roth et al., 2018). This can be explained by the fact that the positivist epistemic tradition, to which much water resource expertise belongs, denies the links between power and knowledge and evacuates

the conscious decisions, agentivity, positionality, and accountability of professionals (Boelens & Vos, 2012; Joy et al., 2014; Roth et al., 2018). The positivist tradition is echoed by neoliberal discourses decontextualizing water problems from their specific socio-political context and rendering political questions technical (Joy et al., 2014). Assuming a certain (technical) understanding of water governance leads to simplifying, overlooking, or even erasing the diverse understandings, constituencies, and interests surrounding water (Zwarteveen et al., 2017). Therefore, to address water rights, equity, and justice issues, it is necessary to repoliticize the water domain (Joy et al., 2014).

While more and more international academics are calling for the repoliticization of the water sector (e.g., Santa Cruz Declaration, 2014), in Tunisia, the debate is still dominated by technical discourses. As shown in this article, even when the debate is repoliticized, notably through civil society's mobilization, critical discourses can, in turn, be rendered technical.

In asserting the necessity of repoliticization of the water domain, I am far from advocating that water should become an object and instrument of political calculations, which is already the case in several contexts (Joy et al., 2014). On the contrary, the aim is to re-emphasize the fundamentally political character of water control and management, a proposition I share with other water specialists (e.g., Boelens, 2015; Boelens et al., 1998, 2018; Joy et al., 2014; Meehan et al., 2023; Roth et al., 2018; Zwarteveen & Boelens, 2014), many political ecologists (e.g., Loftus, 2009; Mollinga, 1998; Mosse, 2003), and, more generally, with political theorists in broader discussions on justice and democracy (e.g., Mouffe, 1993, 2005).

AUTHOR CONTRIBUTIONS

Kais Bouazzi: Conceptualization (lead); data curation (lead); formal analysis (lead); funding acquisition (lead); investigation (lead); methodology (lead); project administration (lead); resources (lead); software (lead); supervision (lead); validation (lead); visualization (lead); writing – original draft (lead); writing – review and editing (lead).

ACKNOWLEDGMENTS

The author would like to thank Prof. Dr Naho Mirumachi (King's College London) for her constructive comments. Thanks also to Prof. Dr Kelly Alley (Auburn University), Prof. Dr Wendy Jepson (Texas A&M University), and Prof. Dr Jan Seibert (University of Zurich) for editing this article.

FUNDING INFORMATION

This article was written as part of a doctoral research project for which the author has been awarded three research grants. He has benefited from the financial support of Fondation Louvain/Louvain4water (Belgium), UCLouvain/FSR-COVID (Belgium), and Wallonie-Bruxelles International (Bilateral cooperation 2019–2023, Belgium-Tunisia).

CONFLICT OF INTEREST STATEMENT

The author has declared no conflicts of interest for this article.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

ORCID

Kais Bouazzi https://orcid.org/0000-0001-5574-5438

RELATED WIREs ARTICLES

Modern water and its discontents: A history of hydrosocial renewal

The politics of water: A review of hydropolitical frameworks and their application in China

Engaging with the politics of water governance

ENDNOTES

[1] I label this process "repoliticization" rather than "politicization" since the latter is "understood as the activation of a political element of a project or policy that has not been previously denied" (Atkins, 2019, p. 93).

[2] Greco (2012) uses the term "bad virtual water" to describe the situation in which virtual water is exported from water-scarce regions to benefit consumers in other countries.

FURTHER READING

AFD. (2008). Tunisie—Programme sectoriel eau n°2. Note de Communication Opérationnelle (NCO). http://www.afd.fr/base-projets/consulterProjet.action?idProjet=CTN1101

Akesbi, N. (2000). La politique agricole entre les contraintes de l'ajustement et l'impératif de sécurité alimentaire. *Critique Économique*, *1*, 8–21.

Akesbi, N. (2013). L'Agriculture marocaine, entre les contraintes de la dépendance alimentaire et les exigences de la régulation sociale. *Maghreb - Machrek*, *215*(1), 31–56. https://doi.org/10.3917/machr.215.0031

Ayeb, H. (2022). *La crise alimentaire actuelle; Ou quand la guerre en Ukraine rappelle la dépendance alimentaire structurelle de la Tunisie*. OSAE. https://osae-marsad.org/2022/04/04/la-crise-alimentaire-actuelle-ou-quand-la-guerre-en-ukraine-rappelle-la-dependance-alimentaire-structurelle-de-la-tunisie/

BAD. (2018). *Programme d'investissement dans le secteur de l'eau—PISEAU II [Rapport d'achèvement de projet (RAP)]*. Banque Africaine de Développement.

Ben Naser, T. (2017). *Vers une privatisation de la gestion de l'eau en Tunisie*. Nawaat. https://nawaat.org/2017/01/31/vers-une-privatisation-de-la-gestion-de-leau-en-tunisie/

Besbes, M., Chahed, J., & Hamdane, A. (2019b). *National water security: Case study of an arid country, Tunisia*. Springer.

Boelens, R., & Zwarteveen, M. (2005). Prices and politics in Andean water reforms. *Development and Change*, *36*(4), 735–758.

Boukhayatia, R. (2022, February 8). *Droit d'association: Le projet liberticide du gouvernement Bouden*. Nawaat. https://nawaat.org/2022/02/08/droit-dassociation-le-projet-liberticide-du-gouvernement-bouden/

Būqirrah, A. (2012). *Fusūl min tārīkh al-yasār al-Tūnisī: Kayfa wājaha al-Shuyū'īyūn wa-Birsbiktīf nizām al-hizb al-wāhid?, 1963–1981: Dirāsah tārīkhīyah [chapters from the history of the Tunisian left: How did the communists and perspectives confront the Oneparty system? 1963–1981: A historical study]*. Dār Āfāq-Brisbiktīf lil-Nashr bi-Tūnis.

Camau, M., & Geisser, V. (2003). *Le syndrome autoritaire: Politique en Tunisie de Bourguiba à Ben Ali*. Les Presses de Sciences Po.

Chaabane, N.-E.-H. (2016, April 21). Projet du code des eaux: *Une consultation circonstanciée s'impose*. Leaders. https://www.leaders.com.tn/article/19598-projet-du-code-des-eaux-une-consultation-circonstanciee-s-impose

DGFIOP. (2008). *Document-Cadre pour la mise en oeuvre des mesures de protection environnementale et sociale (DCPES) pour le deuxième projet d'investissement dans le secteur de l'eau PISEAU II*. Direction Générale du Financement, Investissements et Organismes professionnels (DGFIOP), Ministère de l'Agriculture et des Ressources hydrauliques.

El-Amami, S., & GREDET. (1982). *Pour Une Recherche Agronomique Au Service d'une Technologie Nationale Intégrée* (pp. 15–20). Quelles Technologies? Quel Développement.

Elloumi, M. (2013). Trois ans après: Retour sur les origines rurales de la révolution tunisienne. *Confluences Méditerranée*, *87*(4), 193–203.

Ferguson, J. (1994). *The anti-politics machine: Development, Depoliticization, and bureaucratic power in Lesotho*. University of Minnesota Press.

Ferré, N. (2018). La fabrique de la « société civile » entre évitement du politique et politisation: Usages d'un dispositif de l'action extérieure européenne en Tunisie. *Revue Gouvernance*, *15*(1), 15–42.

Fischer, F. (2003). *Reframing public policy: Discursive politics and deliberative practices*. Oxford University Press.

Foucault, M. (1980). *Power/knowledge: Selected interviews and other writings, 1972–1977*. Vintage.

Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), *The Foucault effect: Studies in governmentality*. University of Chicago Press.

Foucault, M. (1997). "Il faut défendre la société". Cours au Collège de France, 1975-1976. *Tijdschrift Voor Filosofie*, *59*(3), 573–574.

Fraser, N. (2009). *Scales of justice: Reimagining political space in a globalizing world*. Columbia University Press.

Gerlak, A. K., & Ingram, H. (2018). De-politicized policy analysis: How the prevailing frameworks of analysis slight equity in water governance. In R. Boelens, T. Perreault, & J. Vos (Eds.), *Water justice* (pp. 71–88). Cambridge University Press.

Gilbert, C., & Henry, E. (2021). *Crises sanitaires et mise en quarantaine de la politique* (p. 109). Les dépolitisations de l'action publique.

GWP. (2000). *Integrated water resources management, TAC Background Papers No. 4*. Global Water Partnership.

Hibou, B. (2005). Économie politique de la répression: Le cas de la Tunisie. *Raisons Politiques*, *20*(4), 9–36. https://doi.org/10.3917/rai.020.0009

Hibou, B. (2006). *La force de l'obéissance*. La Découverte.

Hibou, B. (2011a). *Anatomie politique de la domination*. La Découverte.

Hibou, B. (2011b). Le moment révolutionnaire tunisien en question: Vers l'oubli du mouvement social? *Dossiers du CERI* [online], 1–15. https://sciencespo.hal.science/hal-01024404

Islar, M. (2012). Struggles for recognition: Privatisation of water use rights of Turkish rivers. *Local Environment*, *17*(3), 317–329. https://doi.org/10.1080/13549839.2012.665858

Jebari, I. (2022). "Illegitimate children": The Tunisian new left and the student question, 1963–1975. *International Journal of Middle East Studies*, *54*(1), 100–123. https://doi.org/10.1017/S0020743821001057

Laws, D., & Rein, M. (2003). A frame in the fields: Policymaking and the reinvention of politics. In M. A. Hajer & H. Wagenaar (Eds.), *Deliberative policy analysis : Understanding governance in the network society* (pp. 88–110). Cambridge University Press.

Li, T. M. (2019). Politics, interrupted. *Anthropological Theory*, *19*(1), 29–53. https://doi.org/10.1177/1463499618785330

Loi no. 75-16, du 31 mars 1975. (1975). Portant promulgation du code des eaux, JORT 22.

Mahjoub, A., & Belghith, M. M. (2023). *La Sécurité et la Souveraineté alimentaires et le droit à l'alimentation en Tunisie*. Forum Tunisien pour les Droits Economiques et Sociaux.

Ministère des Affaires locales et de l'Environnement. (2017). *Concession de l'exploitation d'ouvrages d'assainissement collectif*. http://www.onas.nat.tn/image.php?id=586

Naccache, G. (2009). *Qu'as-tu fait de ta jeunesse: Itinéraire d'un opposant au régime de Bourguiba, 1954–1979: Suivi de récits de prison*. Cerf.

Ohlsson, L., & Turton, A. (2000). The turning of a screw: Social resource scarcity as a bottle-neck in adaptation to water scarcity. *Stockholm Water Front*, *1*, 10–11.

OTE. (2019b). *Observatoire Tunisien de l'Eau*. WatchWater.tn. https://www.watchwater.tn/fr/page/1-propos/

Presse, L. (2023, April 8). Association Nomad 08—Observatoire tunisien de l'eau: Appel à décréter l'état d'urgence hydrique. https://lapresse.tn/155512/association-nomad-08-observatoire-tunisien-de-leau-appel-a-decreter-letat-durgence-hydrique/#:~:text=Pour%20rappel%2C%20l'Observatoire%20tunisien,%C3%A0%20l'eau%20pour%20tous

Projet de loi organique no. 66/2019 portant promulgation du code des eaux (2019). https://majles.marsad.tn/fr/legislation/2019/66

Rudebeck, T. (2022). Framing water as a financial risk: Reviewing the processes shaping a narrative. *WIREs Water*, *9*(4), e1596.

Schlosberg, D. (2004). Reconceiving environmental justice: Global movements and political theories. *Environmental Politics*, *13*(3), 517–540. https://doi.org/10.1080/0964401042000229025

Shutek, J. (2020). Toward a model of food sovereignty in Egypt and Tunisia. *Journal of Agriculture, Food Systems, and Community Development*, *9*(4), 343–346.

Stiegler, B. (2021). *De la démocratie en pandémie*. Gallimard.

Swyngedouw, E. (2013a). The non-political politics of climate change. *ACME: An International Journal for Critical Geographies*, *12*(1), 1–8.

World Bank. (1980). *World development report*. World Bank.

World Bank. (1982). *World development report*. World Bank.

World Bank. (1986). *World development report*. World Bank.

REFERENCES

Abbes, K., Mahjoubi, R., & Flichman, G. (2005). Impacts des formules tarifaires binômes sur le système irrigué de la basse vallée de la Medjerda (Tunisie). In M. S. Bachta (Ed.), *Actes du séminaire Euro Méditerranéen: les instruments économiques et la modernisation des périmètres irrigués*. Kairouan. http://hal.cirad.fr/cirad-00193479/

Abdelhedi, T. (1998). *Gestion des ressources en eau en Tunisie: Principes techniques, fondements juridiques et institutionnels*. Ministère de l'Agriculture. http://www.onagri.tn/uploads/docagri/10735.pdf

Abdelmoula, M. R. (2021, June 22). Tunisie. La rareté de l'eau, un débat pour noyer le poisson. OrientXXI. https://orientxxi.info/magazine/tunisie-la-rarete-de-l-eau-un-debat-pour-noyer-le-poisson,4860

Ajl, M. (2021). The hidden legacy of Samir Amin: Delinking's ecological foundation. *Review of African Political Economy*, *48*(167), 82–101. https://doi.org/10.1080/03056244.2020.1837095

Albouchi, L., Bachta, M. S., & Le Grusse, P. (2003). Pour une meilleure valorisation globale de l'eau d'irrigation Une alternative de réallocation de la ressource sur des bases économiques : Cas du bassin du Merguellil en Tunisie centrale. In Séminaire PCSI: Gestion intégrée de l'eau au sein d'un bassin versant, Montpellier, France. https://www.iwmi.cgiar.org/assessment/files/word/ProjectDocuments/Merguellil/Pour%20une%20meilleure%20valorisation%20globale%20de%20leau%20ALBOUCHI.pdf

Allan, T. (1999). Water in international systems: A risk society analysis of regional problemsheds & global hydrologies. Occasional Paper, 22.

Allan, T. (2003). IWRM/IWRAM: A new sanctioned discourse. *Occasional paper*, *50*.

ARP. (2021). *taqrīr laǧnaï al-filāḥa wa-l-ʾamn al-ġiḏāʾī wa-l-tiǧāra wa-l-adamāt ḏāt al-ṣila ḥawla mašrūʿ al-qānūn al-āsāsī ʿadad 66 / 2019 al-mutaʿalliq bi-iṣdār maǧallaï al-miyāh [report of the committee on agriculture, food security, trade and related services on the draft organic law No. 66/2019 related to the enactment of the water code]*. Maǧlis nuwwāb al-šaʿb. https://majles.marsad.tn/ar/media/show/3311

Atiri, R. A. (2006). Evolution institutionnelle et réglementaire de la gestion de l'eau en Tunisie. Vers une participation accrue des usagers de l'eau. In L'avenir de l'agriculture irriguée en Méditerranée: nouveaux arrangements institutionnels pour une gestion de la demande en eau, Cahors, France. http://hal.cirad.fr/cirad-00191075/document

Atkins, E. (2019). Disputing the 'national interest': The depoliticization and repoliticization of the Belo Monte dam, Brazil. *Water*, *11*(1), 103. https://doi.org/10.3390/w11010103

Attia, H. (1983). Étatisation de l'eau dans les oasis du Jerid tunisien. Lecture d'une dépossession. *Annuaire de l'Afrique du Nord*, *22*, 361–375.

Ayeb, H. (2019). *De la construction de la dépendance alimentaire en Tunisie*. OSAE. https://osae-marsad.org/2019/12/13/de-la-construction-de-la-dependance-alimentaire-en-tunisie/

Azizi, A., Morardet, S., Montginoul, M., & Fusillier, J.-L. (2016). Performances de la gestion collective de l'irrigation et dynamique d'expansion des forages privés dans la plaine de Kairouan. In 10e Journées de recherches en sciences sociales (JRSS), Paris, France. https://agritrop.cirad.fr/599653/1/jrss2016_azizi_1.pdf

Bachta, M. S., & Zaïbet, L. (2006). Les innovations institutionnelles comme adaptations à l'évolution du contexte des périmètres irrigués: Cas de la Tunisie. In L'avenir de l'agriculture irriguée en Méditerranée: nouveaux arrangements institutionnels pour une gestion de la demande en eau, Cahors, France. http://hal.cirad.fr/cirad-00189884

Baduel, P.-R. (1987). Politique tunisienne de développement hydro-agricole (1881-1983). *MOM Éditions*, *14*(1), 147–174.

Bates, S., Jenkins, L., & Amery, F. (2014). (De) politicisation and the Father's clause parliamentary debates. *Policy & Politics*, *42*(2), 243–258.

Ben Alaya, A., Souissi, A., Stambouli, T., Albouchi, L., Chebil, A., & Frija, A. (2015). Eau Virtuelle et Sécurité Alimentaire en Tunisie : Du Constat à l'Appui au Développement (EVSAT-CAD). Projet financé par le Centre de Recherches pour le Développement International (CRDI) et mené par l'École Supérieure d'Agriculture de Mograne. http://rgdoi.net/10.13140/RG.2.2.34065.86888

Ben Amor, R., Ben Khaled, T., Ben Othmane, R., Gaaloul, M., Jonville, M., Mejbri, M., & Ouerd, M. A. (2019). *La justice environnementale, un combat continu*. Forum Tunisien Des Droits Economiques et Sociaux (FTDES). https://ftdes.net/la-justice-environnementale-un-combat-continu/

Ben Gadha, M. (2017). La justice sociale: L'objectif inatteignable de la révolution Tunisienne? Rosa Luxembourg Stiftung (North Africa Office). https://rosaluxna.org/wp-content/uploads/2022/05/RLS-TUN-justice-sociale-06-02-2017.pdf

Ben Hammouda, A., & Sebei, S. (2022). L'impact de la variabilité pluviométrique sur l'apport des barrages et l'approvisionnement des villes en eau potable en Tunisie. In 35ème colloque annuel de l'Association Internationale de Climatologie (AIC 2022), Toulouse, France. http://www.meteo.fr/cic/meetings/2022/aic/resumes/montagne_eau_ben_hammouda.pdf

Ben Mustapha, A., & Faysse, N. (2017). Pratiques de coordination dans les Groupements de Développement Agricole en Tunisie : Des coalitions actives mais fragiles. *Alternatives Rurales*, *5*, 116–131. http://alternatives-rurales.org/numero-5/

Ben Mustapha, A., Faysse, N., Marlet, S., & Jamin, J.-Y. (2015). Une action collective analysée par ses acteurs: Une association d'irrigants en Tunisie. *Natures Sciences Sociétés*, *23*(4), 356–366. https://doi.org/10.1051/nss/2015055

Ben Nasr, J., & Bachta, M. S. (2016). Gouvernance et performance de l'exploitation de l'eau dans les périmètres irrigués de Nadhour: Quel effet des rapports de force? *Revue Des régions Arides*, *44*(1), 115–127. https://www.researchgate.net/publication/325229906_Gouvernance_et_performance_de_l'exploitation_de_l'eau_dans_les_perimetres_irrigues_de_Nadhour_Quel_effet_des_rapports_de_force

Besbes, M., Chahed, J., Bargaoui, Z., Matoussi, M. S., & Mhiri, A. (2002). L'avenir de l'eau: Un nouveau challenge pour la Tunisie. https://www.researchgate.net/publication/356893220_L'Avenir_de_l'eau_un_nouveau_challenge_pour_la_Tunisie_Introduction_Generale_Les_Problemes_de_l'Eau_en_Tunisie

Besbes, M., Chahed, J., & Hamdane, A. (2019a). Fifty years of water policies, 1960–2010. In M. Besbes, J. Chahed, & A. Hamdane (Eds.), *National Water Security* (pp. 57–92). Springer International Publishing. https://doi.org/10.1007/978-3-319-75499-4_3

Besbes, M., Chahed, J., Hamdane, A., & de Marsily, G. (2014). *Sécurité hydrique de la Tunisie: Gérer l'eau en conditions de pénuries*. L'Harmattan.

Besbes, M., Chahed, J., Shayeb, H., & Hamdane, A. (2013). L'eau en Tunisie. Technologies de l'eau. https://doi.org/10.51257/a-v1-w3005

Beveridge, R., & Naumann, M. (2014). Global norms, local contestation: Privatisation and de/politicisation in Berlin. *Policy & Politics*, *42*(2), 275–291.

Biswas, A. K. (2004). Integrated water resources management: A reassessment. *Water International*, *29*(2), 248–256. https://doi.org/10.1080/02508060408691775

Boelens, R. (2015). *Water justice in Latin America: The politics of difference, equality, and indifference*. CEDLA, University of Amsterdam.

Boelens, R., Dávila, G., & Menchú, R. (1998). *Searching for equity: Conceptions of justice and equity in peasant irrigation*. Uitgeverij Van Gorcum.

Boelens, R., Hoogesteger, J., Swyngedouw, E., Vos, J., & Wester, P. (2016). Hydrosocial territories: A political ecology perspective. *Water International*, *41*(1), 1–14. https://doi.org/10.1080/02508060.2016.1134898

Boelens, R., Perreault, T., & Vos, J. (2018). Introduction: The multiple challenges and layers of water justice struggles. In R. Boelens, T. Perreault, & J. Vos (Eds.), *Water justice* (pp. 1–32). Cambridge University Press. https://doi.org/10.1017/9781316831847.001

Boelens, R., & Vos, J. (2012). The danger of naturalizing water policy concepts: Water productivity and efficiency discourses from field irrigation to virtual water trade. *Agricultural Water Management*, *108*, 16–26.

Bouazzi, K. (2024). *Transition de la gestion de l'offre à la gestion de la demande en eau et justice hydrique en Tunisie: Reconnaissance, participation et (re)distribution*. Presses Universitaires de Louvain.

Canesse, A.-A. (2010). Rural "participation" and its framework in Tunisia. *Journal of Economic and Social Research*, *12*(1), 63–88.

Canesse, A.-A. (2011). Les groupements de développement agricole (GDA): Entrepreneurs locaux ou relais administratifs ? In P.-N. Denieuil & M. Madoui (Eds.), *Entrepreneurs maghrébins, terrains en développement* (pp. 351–364). Karthala.

Cherif, A. (1994). Politique de l'eau et aménagement des campagnes. *Cahiers de la Méditerranée*, *49*(1), 83–104. https://doi.org/10.3406/camed.1994.1127

Chikhaoui, Y. (2019, July 17). Munassaq al-marṣad al-tūnsī li-l-miyāh: al-dawla tattağih li-awṣaṣaï qiṭāʿ al-miyāh (ḥiwār) [coordinator of the Tunisian water observatory: The state is moving towards the privatization of the water sector (dialogue)]. https://ultratunisia.ultrasawt.com/تالباقم/عمتجم/ي-للملمياه-الدولة-تتجه-لخوصصة-قطاع-المياه/يسرى-الشيخاوي-سنوتلا-دصرملا-قسنم-راوح

Cienki, A., & Yanow, D. (2013). Why metaphor and other tropes? Linguistic approaches to analysing policies and the political. *Journal of International Relations and Development*, *16*, 167–176.

Coffey, B. (2016). Unpacking the politics of natural capital and economic metaphors in environmental policy discourse. *Environmental Politics*, *25*(2), 203–222.

Conca, K. (2006). *Governing water: Contentious transnational politics and global institution building*. MIT Press.

Décarsin, A. (2012). La souveraineté alimentaire ou le droit des peuples à décider de leurs politiques agricoles. *IdeAs* [online], *3*. http://journals.openedition.org/ideas/538

Derbali, M. (2021). Le Code des eaux tunisien. Le spectre de la privatisation. Orientxxi. https://orientxxi.info/magazine/le-code-des-eaux-tunisien-le-spectre-de-la-privatisation,4898

DG-EGTH. (1995). *Économie d'eau 2000*. Ministère de l'Agriculture, Direction générale des équipements et grands travaux hydrauliques.
DGRE. (1990). *Stratégie pour le développement des ressources en eau de la Tunisie au cours de la décennie 1991–2000*. Ministère de l'Agriculture, Direction Générale des Ressources en Eau.
DGRE. (1998). *Etude du Secteur de l'Eau*. Ministère de l'Agriculture, Direction Générale des Ressources en Eau.
Dimassi, H. (1984). La crise économique en Tunisie: Une crise de régulation. *Maghreb-Machrek*, *1*, 57–69.
El Amami, S. (1983). Changing concepts of water management in Tunisia. In J. Richardson (Ed.), *Impact of science on society* (pp. 57–64). Presses Universitaires de France.
El Amami, S., Gachet, J.-P., & Gallali, T. (1979). Choix techniques et agriculture maghrébine: Le cas de La Tunisie. *Peuples Méditerranéens*, *8*, 119–152.
Elloumi, M. (2011). Pour une gestion durable des ressources naturelles, les limites du cadre institutionnel tunisien. In *Pouvoirs, sociétés et nature au sud de la Méditerranée* (pp. 53–80). Karthala.
Elloumi, M. (2016). *La gouvernance des eaux souterraines en Tunisie*. IWMI project report No. 7, groundwater governance in the Arab world, USAID & IWMI.
Ferguson, J., & Gupta, A. (2002). Spatializing states: Toward an ethnography of neoliberal governmentality. *American Ethnologist*, *29*(4), 981–1002.
Foucault, M. (1975). *Surveiller et punir: Naissance de la prison*. Gallimard.
Foucault, M. (1976). *Histoire de la sexualité. 1: La volonté de savoir*. Gallimard.
Foucault, M. (1982). Afterword: The subject and power. In H. L. Dreyfus & P. Rabinow (Eds.), *Michel Foucault: Beyond structuralism and hermeneutics*. Harvester.
Foucault, M. (2008). *The birth of biopolitics*. Palgrave Macmillan.
FTDES. (2012). Daḥāyā muḥākamāt al-ʿaṭaš [victims of thirst trials]. al-muntadā al-tūnsī li-l-ḥuqūq al-ʾiqtiṣādiyya wa-l-ʾiğtimāʿiyya.
FTDES. (2021). *Mašrūʿ maǧllat al-miyāh: Muqtaraḥ qism al-ʿadāla al-bīʾiyya li-l muntada al-tūnisī li-l ḥuqūq al-ʾiqtiṣādiyya wa-l ʾiğtimāʿiyya [draft water code: Proposal of the environmental justice Service of the Tunisian Forum for economic and social rights]. Tunisian Forum for Economic and Social Rights*.
Gachet, J.-P. (1987). L'agriculture, discours et stratégies. In M. Camau (Ed.), *Tunisie, une modernité au-dessus de tout soupçon* (pp. 181–228). CNRS.
Gamble, A. (2000). *Politics and fate*. Polity Press.
Gana, A. (2013). Aux origines rurales et agricoles de la Révolution tunisienne. *Maghreb-Machrek*, *1*, 57–80.
Gana, A. (2018). Protestations et action collective en milieu agricole et rural: Enjeux et paradoxes du processus de changement politique en Tunisie. In I. A. Allal & V. Geisser (Eds.), *Tunisie: Une démocratisation au-dessus de tout soupçon?* (pp. 57–71). CNRS.
Gana, A., & El-Amrani, M. (2006). Crise hydraulique au Maghreb: Raréfaction de la ressource ou problèmes de gestion? *Géocarrefour*, *81*(1), 37–50. https://doi.org/10.4000/geocarrefour.1765
Gana, A., & Fouillen, B. (2014). *Concurrences et conflits pour l'usage de l'eau en Tunisie: Étude de cas dans la région du Cap Bon*. Le Carnet de l'IRMC. http://irmc.hypotheses.org/1412
Ghazouani, S., & Rhili, H. (2019). *Nomad 08, Observatoire Tunisien de l'Eau* (Al-manẓūma al-tašrīʿiyya wa-l-qānūniyya li-l-miyāh fī tūnis: Qirāʾa taḥlīliyya wa naqdiyya [the legislative and legal system of water in Tunisia: An analytical and critical reading]). Stiftung (North Africa Office), Rosa Luxembourg.
GnetNews. (2019, November 11). La société civile plaide pour l'adoption du code citoyen de l'eau composé de dix principes. https://news.gnet.tn/la-societe-civile-plaide-pour-ladoption-du-code-citoyen-de-leau-compose-de-dix-principes/#:~:text=Ce%20code%20citoyen%20de%20l,des%20eaux%20en%20milieu%20rural
Greco, F. (2012). Introducing an historical perspective to virtual water flows: How hydrometabolism explains the "bad" virtual water flows from nonrenewable/overexploited groundwater. EGU Leonardo 2012.
Hajer, M. A. (1993). Discourse coalitions and the institutionalisation of practice: The case of acid rain in Britain. In F. Fischer & J. Forester (Eds.), *The argumentative turn in policy analysis and planning*. Duke University Press.
Hamdane, A. (1993). *La gestion de l'eau en Tunisie*. Rapport de Synthèse, Ministère de l'Agriculture.
Hamdane, A. (2019). Chapter 2: Tunisia. In F. Molle, C. Sanchis-Ibor, & L. Avellà-Reus (Eds.), *Irrigation in the Mediterranean* (pp. 15–49). Springer.
Hassaïnya, J. (1991). *Irrigation et développement agricole: L'expérience tunisienne*. CIHEAM.
Hay, C. (2007). *Why we hate politics*. Polity.
Helali, M. (2020). Les limites d'une politique de sécurité alimentaire: Le cas de la filière céréalière. Nomad 08/Observatoire tunisien de l'eau/Observatoire tunisien de l'économie.
Hrabanski, M. (2011). Souveraineté alimentaire. Mobilisations collectives agricoles et instrumentalisations multiples d'un concept transnational. *Revue Tiers Monde*, *207*(3), 151–168. https://doi.org/10.3917/rtm.207.0151
HYDRATEC–CEDRAT. (1977). *Plan directeur des eaux du Centre*.
ICWE. (1992). The Dublin Statement on water and sustainable development. In *International Conference on Water and the Environment*, Dublin, Ireland.
ITALCONSULT. (1975). *Plan directeur des eaux du Nord*.
ITALCONSULT. (1976). *Plan directeur des eaux de l'Extrême-Nord*.

ITES. (2014). *Etude stratégique: Système hydraulique de la Tunisie à l'horizon 2030*. Institut Tunisien des Etudes Stratégiques. http://www.onagri.nat.tn/uploads/Etudes/SYSTEME-HYDROLIQUE-DE-LA-TUNISIE-A-LHORIZON-2030.pdf

Iyer, R. R. (2007). *Towards water wisdom: Limits, justice, harmony*. Sage Publications.

Jenkins, L. (2011). The difference genealogy makes: Strategies for politicisation or how to extend capacities for autonomy. *Political Studies*, *59*(1), 156–174.

Jouili, M. (2008). *Ajustement structurel, mondialisation et agriculture familiale en Tunisie*. Université Montpelier1. https://hal.science/tel-01172161

Jouili, M., Kahouli, I., & Elloumi, M. (2013). Appropriation des ressources hydrauliques et processus d'exclusion dans la région de sidi Bouzid (Tunisie centrale). *Études Rurales*, *192*, 117–134. https://doi.org/10.4000/etudesrurales.9929

Joy, K., Kulkarni, S., Roth, D., & Zwarteveen, M. (2014). Re-politicising water governance: Exploring water re-allocations in terms of justice. *Local Environment*, *19*(9), 954–973. https://doi.org/10.1080/13549839.2013.870542

Kenis, A., & Mathijs, E. (2014). Climate change and post-politics: Repoliticizing the present by imagining the future? *Geoforum*, *52*, 148–156.

Khiari, S. (2003). 3. Désengagement de l'État et désocialisation. In *Tunisie: Le délitement de la cité* (pp. 75–100). Karthala.

Kilani, M. (1986). L'influence de l'État dans la transformation du système hydraulique du groupe d'oasis de Gafsa (Tunisie). *Genève-Afrique*, *24*(2), 7 https://www.proquest.com/scholarly-journals/linfluence-de-létat-dans-la-transformation-du/docview/1297919616/se-2

Laajimi, A. (2007). Les périmètres irrigués en Tunisie: Un enjeu pour le développement de la production agricole. *Les Notes d'alerte-CHIEAM*, *30*, 1–3.

Lahiri-Dutt, K., & Wasson, R. (2009). Water first: Issues and challenges for nations and communities of South Asia. *Resources, Energy, and Development*, *6*(1), 45–47.

Li, T. M. (2007). *The will to improve: Governmentality, development, and the practice of politics*. Duke University Press.

Li, T. M. (2011). Rendering society technical: Government through community and the ethnographic turn at the World Bank in Indonesia. In D. Mosse (Ed.), *Adventures in Aidland: The anthropology of professionals in international development* (pp. 57–80). Berghahn.

Linton, J. (2010). *What is water?: The history of a modern abstraction*. UBC Press.

Loftus, A. (2009). Rethinking political ecologies of water. *Third World Quarterly*, *30*(5), 953–968. https://doi.org/10.1080/01436590902959198

Louati, I., & Balcou, C. (2019). *Politique de l'eau: Le nouveau code des eaux saura-t-il répondre à la crise de l'eau en Tunisie? Policy Brief No. 6*. Observatoire tunisien de l'Economie.

Louati, M. E.-H., Khanfir, R., Alouini, A., El-Euchi, M. L., Marzouk, A., & Frigui, L. (1998). *Eau XXI: Stratégie du secteur de l'eau en Tunisie à long terme 2030*. Ministère de l'Agriculture.

Mamou, A., & Kassah, A. (2000). Économie et valorisation de l'eau en Tunisie. *Sécheresse*, *11*(4), 249–256.

MARHP. (2017). *Rapport national du secteur de l'eau 2017*. Ministère de l'Agriculture, Des Ressources Hydrauliques et de la Pêche.

MARHP. (2019). *Rapport national du secteur de l'eau 2019*. Ministère de l'Agriculture, Des Ressources Hydrauliques et de la Pêche.

MARHP. (2020). *Rapport national du secteur de l'eau 2020*. Ministère de l'Agriculture, Des Ressources Hydrauliques et de la Pêche.

Mekki, H. (2009). La politique de l'eau en Tunisie. In Conférence Régionale sur la Gouvernance de l'eau: Échange d'expériences entre l'OCDE et les pays arabes, Tunis, Tunisie. https://www.oecd.org/mena/governance/43316451.pdf

Mellah, T. (2018). Effectiveness of the water resources allocation institution in Tunisia. *Water Policy*, *20*(2), 429–445. https://doi.org/10.2166/wp.2018.067

Menga, F. (2015). Building a nation through a dam: The case of Rogun in Tajikistan. *Nationalities Papers*, *43*(3), 479–494.

Min. Agriculture. (1972). *Les investissements dans l'agriculture au cours de la décénnie 1962–1972*. Rapport du Bureau du Plan.

Molden, D. (2007). *Water for food, water for life: A comprehensive assessment of water management in agriculture*. IWMI/Earthscan.

Molle, F. (2008). Nirvana concepts, narratives and policy models: Insights from the water sector. *Water Alternatives*, *1*(1), 131–156.

Molle, F. (2011). Politique agraire et surexploitation de l'eau au Maghreb et au Machrek. In I. T. Dahou, M. Elloumi, F. Molle, M. Gassab, & B. Romagny (Eds.), *Pouvoirs, sociétés et nature au sud de la Méditerranée* (pp. 109–130). Karthala-INRAT-IRD.

Molle, F., Mollinga, P. P., & Wester, P. (2009). Hydraulic bureaucracies and the hydraulic mission: Flows of water, flows of power. *Water Alternatives*, *2*(3), 328–349.

Mollinga, P. P. (1998). *On the waterfront: Water distribution, technology and agrarian change in a south Indian canal irrigation system*. Wageningen University and Research.

Mollinga, P. P., Dixit, A., & Athukorala, K. (2006). *Integrated water resources management: Global theory, emerging practice and local needs*. SAGE Publications.

Mosse, D. (2003). *The rule of water: Statecraft, ecology and collective action in South India*. Oxford University Press.

Mosse, D. (2004). Is good policy unimplementable? Reflections on the ethnography of aid policy and practice. *Development and Change*, *35*(4), 639–671. https://doi.org/10.1111/j.0012-155X.2004.00374.x

Mouffe, C. (1993). *The return of the political*. Verso.

Mouffe, M. (2005). *On the political*. Routledge.

Mouri, H. (2012). La « privatisation » de l'eau d'irrigation, un enjeu social et politique. In C. Aspe (Ed.), *De l'eau agricole à l'eau environnementale: Résistance et adaptation aux nouveaux enjeux de partage de l'eau en Méditerranée* (pp. 51–62). Quae.

Mouri, H., & Marlet, S. (2006). De l'association d'intérêt collectif au groupement de développement agricole: Le changement institutionnel et son impact sur le fonctionnement des périmètres publics irrigués tunisiens. In S. Bouarfa, M. Kuper, & A. Debbarh (Eds.), *L'avenir de l'agriculture irriguée en Méditerranée: nouveaux arrangements institutionnels pour une gestion de la demande en eau*. Cahors, France. https://agritrop.cirad.fr/558991/1/document_558991.pdf

Mukhtarov, F. G. (2008). Intellectual history and current status of integrated water resources management: A global perspective. In *Adaptive and integrated water management* (pp. 167–185). Springer.

OECD. (2014). *Water governance in Tunisia: Overcoming the challenges to private sector participation*. OECD. https://doi.org/10.1787/9789264174337-en

OTE. (2019a). *Charte de la Tunisie pour le droit à l'eau*. Observatoire Tunisien de l'Eau.

OTE. (2021). *ʾistihlāk al-miyāh al-maʿdaniyya fī tūūnis: al-wāqaʿ wa-l-taḥadiyāt [consumption of mineral water in Tunisia: Reality and challenges]*. Observatoire Tunisien de l'Eau.

Pacific Institute. (2024). *Water conflict chronology*. Pacific Institute. https://worldwater.org/conflict/list/

Pepermans, Y., & Maeseele, P. (2014). Democratic debate and mediated discourses on climate change: From consensus to de/politicization. *Environmental Communication*, *8*(2), 216–232.

Pérennès, J.-J. (1988). La Politique de l'eau en Tunisie. *Maghreb - Machrek*, *120*(2), 23–41. https://doi.org/10.3917/machr1.120.0023

Pérennès, J.-J. (1992). Un aspect de la question hydraulique au Maghreb: La politique des barrages. *Égypte/Monde Arabe*, *10*, 37–50. https://doi.org/10.4000/ema.1407

Pérennès, J.-J. (1993). *L'eau et les hommes au Maghreb: Contribuation à une politique de l'eau en Méditerranée*. Karthala.

Reisner, M. (1993). *Cadillac Desert: The American west and its disappearing water*. Penguin.

Rhili, H. (2018). *al-māʾ wa-l-ʿadāla al-iǧtimāʿiyya bi-l-ḥawḍ al-manǧimī [water and social justice in the mining basin]*. Towards socially just development in the MENA region, Friedrich-Ebert-Stiftung/Observatoire Tunisien de l'Eau.

Romagny, B., & Riaux, J. (2007). La gestion communautaire de l'eau agricole à l'épreuve des politiques participatives: Regards croisés Tunisie/Maroc. *Hydrological Sciences Journal*, *52*(6), 1179–1196. https://doi.org/10.1623/hysj.52.6.1179

Rose, N. (1999). *Powers of freedom: Reframing political thought*. Cambridge University Press.

Roth, D., Zwarteveen, M., Joy, K., & Kulkarni, S. (2018). Water governance as a question of justice: Politics, rights, and representation. In R. Boelens, T. Perreault, & J. Vos (Eds.), *Water justice* (pp. 43–58). Cambridge University Press.

Santa Cruz Declaration, M. (2014). Santa Cruz Declaration on the global water crisis. *Water International*, *39*(2), 246–261. https://doi.org/10.1080/02508060.2014.886936

Sehring, J. (2009). *The politics of water institutional reform in neopatrimonial states*. Springer.

Sethom, H. (1992). *Pouvoir urbain et paysannerie en Tunisie*. Cérès Production.

SOGREAH–SOTUTEC. (1975). *Plan directeur des eaux du Sud*.

STUDI & GKW. (2022). *Elaboration de la vision et de la stratégie du secteur de l'eau à l'horizon 2050 pour la Tunisie « Eau 2050 »: Executive summary. Etape 4: Elaboration de la vision et de la stratégie du secteur de l'eau à l'horizon 2050*. Ministère de l'Agriculture, des Ressources hydrauliques et de la Pêche (Maitre d'ouvrage), GIZ & KFW (Bailleurs). http://www.onagri.nat.tn/uploads/secteur-eau/1.pdf

Swyngedouw, E. (1999a). Hybrid waters: On water, nature, and society. In *Social power and the urbanization of water* (pp. 7–26). Oxford University Press.

Swyngedouw, E. (1999b). Modernity and hybridity: Nature, regeneracionismo, and the production of the Spanish waterscape, 1890–1930. *Annals of the Association of American Geographers*, *89*(3), 443–465. https://doi.org/10.1111/0004-5608.00157

Swyngedouw, E. (2013b). Into the sea: Desalination as hydro-social fix in Spain. *Annals of the Association of American Geographers*, *103*(2), 261–270.

TAP. (2021, July 15). *Report de l'examen du Projet de loi relatif au code des eaux*. Mosaïque Fm. https://www.mosaiquefm.net/fr/actualite-national-tunisie/930599/report-de-l-examen-du-projet-de-loi-relatif-au-code-des-eaux

Thabet, C., Mahé, L.-P., & Surry, Y. (2005). La tarification de l'eau d'irrigation en Tunisie: Une analyse en équilibre général. *Économie Rurale*, *285*, 51–69. https://doi.org/10.4000/economierurale.3126

Touzi, S., Barraqué, B., & Treyer, S. (2010). Le service de l'eau potable en Tunisie. Le modèle de régulation tarifaire face aux défis futurs. *Revue Tiers Monde*, *203*(3), 61–80. https://doi.org/10.3917/rtm.203.0061

Treyer, S. (2001). La planification stratégique à long terme de l'eau en Tunisie. *Revue Tiers Monde*, *2001*(166), 455–474.

Treyer, S. (2002). *Analyse des stratégies et prospectives de l'eau en Tunisie*. Plan Bleu, Ministère de l'Ecologie et du Développement Durable & Agence de l'Eau Rhône Méditerranéen Corse.

Trottier, J. (2012). L'avènement de la gestion intégrée des ressources en eau. In I. F. Lasserre & A. Brun (Eds.), *Gestion de l'eau: Approche territoriale et institutionnelle* (pp. 179–195). Presses Universitaires du Québec.

Venot, J. P., & Clement, F. (2013). Justice in development? An analysis of water interventions in the rural south. *Natural Resources Forum*, *37*(1), 19–30. https://doi.org/10.1111/1477-8947.12002

Vernin, Z. (2020). L'exportation des dattes et le coût hydrique des devises: Des politiques agricoles qui vouent la région de Kébili à la pénurie. Nomad 08/Observatoire Tunisien de l'eau/Observatoire Tunisien de l'Economie.

Via Campesina. (2003). Food sovereignty. Via Campesina web page. https://viacampesina.org/en/food-sovereignty/#:~:text=To%20achieve%20food%20sovereignty%2C%20dumping,up%20diversity%20on%20our%20planet

Vos, J., & Boelens, R. (2018). Neoliberal water governmentalities, virtual water trade, and contestations. In R. Boelens, T. Perreault, & J. Vos (Eds.), *Water justice* (pp. 283–301). Cambridge University Press.

Vos, J., Perreault, T. A., & Boelens, R. (2018). Introduction: Exclusion and struggles for co-decision. In R. Boelens, T. Perreault, & J. Vos (Eds.), *Water justice (pp. 283–301, 188–192)*. Cambridge University Press.

Wester, P., & Warner, J. (2002). River basin management reconsidered. In A. Turton & R. Henwood (Eds.), *Hydropolitics in the developing world: A southern African perspective* (pp. 61–71). African Water Issues Research Unit.

White, J. D. (1992). Taking language seriously: Toward a narrative theory of knowledge for administrative research. *The American Review of Public Administration*, *22*(2), 75–88.

WMC, & TAP. (2020, June 2). *Les députés adoptent un accord de crédit entre la Tunisie et la KfW*. Webmanagercenter. https://www.webmanagercenter.com/2020/06/02/451389/arp-adoption-dun-accord-de-credit-entre-la-tunisie-et-la-kfw/?fbclid=IwAR2tHOTRVCIEIjUSE4FYcWgBYu9Ons_ukQwZavPcE6j3NHcj4XcAh6Uqch4

Wolf, E. E., & van Dooren, W. (2018). Conflict reconsidered: The boomerang effect of depoliticization in the policy process. *Public Administration*, *96*(2), 286–301.

Wood, M., & Flinders, M. (2014). Rethinking depoliticisation: Beyond the governmental. *Policy & Politics*, *42*(2), 151–170.

Woodhouse, P., & Muller, M. (2017). Water governance—An historical perspective on current debates. *World Development*, *92*, 225–241. https://doi.org/10.1016/j.worlddev.2016.11.014

Zemni, S. (2021). Tunisia's marginalized redefine the political. Middle East Research and Information Project (MERIP), 2021 (298). http://hdl.handle.net/1854/LU-8739666

Zwarteveen, M., & Boelens, R. (2014). Defining, researching and struggling for water justice: Some conceptual building blocks for research and action. *Water International*, *39*(2), 143–158.

Zwarteveen, M., Kemerink-Seyoum, J. S., Kooy, M., Evers, J., Guerrero, T. A., Batubara, B., Biza, A., Boakye-Ansah, A., Faber, S., & Cabrera Flamini, A. (2017). Engaging with the politics of water governance. *WIREs Water*, *4*(6), e1245.

How to cite this article: Bouazzi, K. (2024). Immunity through technification? A critical review of water governance discourses in Tunisia. *WIREs Water*, e1757. https://doi.org/10.1002/wat2.1757