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The Institutionalization of Irrigation and the Effects thereof: the Case of the Palestinian Water User Associations

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Abstract
This article proposes the deconstruction of the decentralization process by analyzing Palestinian regulations on Water User Associations (WUAs): contrarily, this analysis instead reveals dynamics of centralization and the concentration of power, which threatens the existing modes of local water resource management and ignores the legal pluralism at play.
The Palestinian water law of 2014 and the WUA regulations of 2018 are part of a policy to decentralize water resource management. This policy was promoted on an international scale with the concept of Integrated Water Resources Management (IWRM). It consists of encouraging users to participate in the decision-making process related to irrigation management. This is materialized in a desire to create WUAs, which are supposed to increase the participation of local actors. Local associations of irrigators or farmers existed long before the implementation of decentralization policies in the 1990's, but they had no formal presence with regard to public authorities. This formalization, however, was not necessary for them to continue their activity. The case of Palestine reflects a strong investment by state institutions in water management rather than an increase in the participation of local communities in decision-making processes. The reform of the water sector in the Palestinian territories does not occur in an institutional and legal vacuum: several rules relating to irrigation management have coexisted in the past and continue to do so today. The regulation on Palestinian WUAs institutionalizes a specific type of association and delegitimizes informal irrigator institutions that do not meet the imposed criteria. Analyzing the new regulation on the creation of WUAs and comparing the decision-making trajectories of different modes of water management reveals that the so-called decentralization process actually leans more towards a centralization of water resource management.

Keywords
WUA, Irrigation, Israeli-Palestinian conflict, Water governance, Decentralization, Legal pluralism, Commons

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Résumé
Cet article propose de déconstruire les processus de décentralisation à travers l'analyse de la nouvelle réglementation palestinienne sur les Associations d'usagers de l'eau (AUE). L'analyse de ces politiques de décentralisation révèle une dynamique de centralisation et de concentration des pouvoirs, menaçant les modes existants de gestion locale des ressources en eau et ignorant le pluralisme juridique à l'oeuvre. La loi de l'eau palestinienne de 2014 et le règlement sur les AUE de 2018 s'inscrivent dans une politique de décentralisation de la gestion des ressources en eau, promue à l'échelle internationale par le concept de Gestion Intégrée des Ressources en Eau (GIRE).
Il s'agit notamment d'encourager la participation des usagers au processus de décision pour la gestion de l'irrigation. Ceci se matérialise par la volonté de créer des AUE, censées accroitre la participation des acteurs locaux. Les associations locales d'irrigants ou d'agriculteurs existaient bien avant ces politiques de décentralisation mises en place dans les années 1990, mais leur existence n'était pas formalisée auprès de l'État et cette formalisation n'était pas nécessaire à la poursuite de leurs activités. Le cas palestinien traduit un fort investissement des institutions étatiques dans la gestion de l'eau plutôt qu'un accroissement de la participation des communautés locales aux processus décisionnaires. La réforme du secteur de l'eau dans les territoires palestiniens ne s'effectue pas dans un vide institutionnel et juridique. Plusieurs règles relatives à la

gestion de l'irrigation ont coexisté et coexistent encore aujourd'hui dans les territoires palestiniens. La régulation sur les AUE palestiniennes institutionnalise un type spécifique d'associations et délégitime les institutions informelles d'irrigants ne répondant pas aux critères imposés. L'analyse du nouveau règlement sur la création d'AUE et la comparaison des trajectoires décisionnelles de différents modes de gestion de l'eau démontrent que le processus dit de décentralisation tend plutôt vers une centralisation de la gestion des ressources en eau.

Mots-clés
AUE, Irrigation, Conflit israelo-palestinien, Gouvernance de l'eau, Décentralisation, Pluralisme juridique, Communs

Introduction

The Palestinian water law of 2014 and the regulation on Water User Associations (WUA's) of 2018 are part of a policy decentralizing water resource management that was promoted on an international scale with the concept of Integrated Water Resources Management (IWRM). The creation of Palestinian WUA's follows international interest in Irrigation Management Transfer (IMT) policies, which encourage the participation of local actors in decision-making processes regarding water management.

The motivations behind the IMT policies respond to the four main principles promoted by the Dublin Statement of 1992[1], a key moment in the international reform of water resource management. The FAO identifies five reasons to encourage management transfers: 1) reducing government budgetary costs for irrigation systems; 2) increasing agricultural productivity and economic profitability of irrigation systems; 3) motivating farmers to pay more for the operation and maintenance of their irrigation systems; 4) achieving more efficient and equitable water delivery by making farmers more accountable; and 5) promoting collective action for business ventures (Garces-Restrepo, Vermillion and Munoz, 2007, 11-12). The goal is to leave the developmentalist state by entrusting certain state prerogatives to new local institutions that are supposed to guarantee better management of the system.

In the case of Palestine, the creation of WUAs comes in response to the Palestinian Authority's (PA) desire, supported by donors, to decentralize water resource management and thus increase the participation of local actors in the decision-making process. Since the first water law of 2002, mention was made of their creation, but without any practical consequences. Following the second water sector reform process, which began in 2008 and led to the second water law in 2014, the regulation on WUAs was promulgated in 2018. Organizing into associations or cooperatives is nothing new for the Palestinian agricultural world. However, it is now a question of institutionalizing these modes of organization and including them in the national water resource management strategy. The reflection presented in this article regarding the creation of formal Palestinian WUAs is part of a critical literature about these organizations, both from the point of view of the motivations for this change of organization and from the point of view of their integration into local hydropolitical constellations.

This article proposes the deconstruction of the decentralization process by analyzing the new Palestinian regulations on WUAs. The analysis of these decentralization policies reveals dynamics of centralization and the concentration of power, which threatens the existing modes of local water resource management and ignores the legal pluralism at play.

1 Principle No. 1: Fresh water – a finite and vulnerable resource – is essential to sustain life, development, and the environment; Principle No. 2: Water development and management should be based on a participatory approach, involving users, planners, and policymakers at all levels; Principle No. 3: Women play a central part in the provision, management, and safeguarding of water; Principle No. 4: Water has an economic value in all its competing uses and should be recognized as an economic good.

I – Legal pluralism in the governance of irrigation water in the West Bank: from the era of the Ottoman Empire to the present day

The reform of the water sector in the Palestinian territories does not take place in an institutional and legal vacuum. Several rules relating to the management of Palestinian water resources have coexisted in the past and continue to do so today. This is true for irrigation cases where water resources have mostly been managed locally, according to customary rules, despite some attempts at centralized control of these resources. This is an example of legal pluralism that needs to be examined in order to understand the actual organization around agricultural water resources in the West Bank. We wish here to adopt a historical perspective in order to reflect how this legal pluralism is anchored in water resource management in Palestinian society, though it is invisible in Palestinian water law and in the reflection on the creation of the WUAs.

1.1. From the Ottoman Empire to the British Mandate: independent and micro-local management of agricultural water

Very few studies have explored irrigation patterns in Ottoman Empire Palestine. A. Singer (1994) turns briefly to water to study the complex relationships between Palestinian farmers and representatives of the Ottoman Empire in the Jerusalem area in the 16th century. Through the analysis of Ottoman archives (registers of inquiries, imperial decrees) and Islamic judicial archives, Singer questions the overly simplistic reading of a centralizing imperial power in the face of a homogeneous and rebellious peasantry. The Ottoman administration exercises relative power over the peasants of Jerusalem through taxes, but it is also aware of the importance of maintaining the stability of the peasantry, the social and economic basis of the empire. The peasants repeatedly resorted to the local judge to challenge imperial decrees and settle disputes with the Ottoman administration or among themselves. Nevertheless, A. Singer explains that these acts represent individual rebellions rather than a movement of collective revolt seeking to overthrow the power of Istanbul. She gives the example of holes drilled by peasants in water pipes in the Jerusalem area to divert water to their fields or to give water to their animals (Singer, 1994, 101-3). These acts of "piracy" appear in the archives of the Islamic Court. However, A. Singer states that the Ottoman administration paid little attention to the arrangements for the distribution of irrigation water in the Jerusalem area, its main concern being the supply of cities.

Regarding the Nablus region, B. Doumani (1995) is interested in the relations between urban elites and the Nabulsi peasantry, which he views through the lens of the production of raw materials driving the local economy: olive oil (and therefore soap) and cotton. The author does not explore water management but notes that peasants, in their capacity as

participants in court cases, make a late appearance in the registers of the Islamic Court in Nablus. They appear in these archives in the 1830's, mostly in cases relating to land disputes. In 1850, their involvement in legal affairs was more intense and mainly concerned disputes over loans taken out by peasants from urban commercial elites2. Thus, B. Doumani suggests a relative integration of rural communities into urban legal culture from the middle of the 19th century through market relations. However, the large number of rural conflicts that were settled without the intervention of the Islamic Court and on the basis of customary law allows a more nuanced picture of this legal integration and confirms the existence of legal pluralism, at least in the case of the resolution of disputes.

The modes of irrigation in the Nablus region during the Ottoman period have yet to be explored. Some works describe the types of crops present in this region. Through the analysis of the tax records of the Ottoman Empire at the end of the 16th century, W. Hütteroth and K. Abdulfattah (1977) were able to identify the seeds cultivated in the different regions of Ottoman Palestine. Thus, we know that farmers in the Nablus region mainly cultivated wheat, "summer crops" (sorghum, beans, vegetables, melons, etc.), and olive trees, as well as barley, to a lesser extent. At the beginning of the 19th century, the Al Far'a valley already contained "large plots of irrigated land" (Doumani, 1995, 30). During his expedition to Samaria in 1870, V. Guérin[3] crossed the Nablus region during the month of May. He describes the springs he encountered and the crops in the fields he passed by in detail. During his journey through the region, he observed grain fields in Tayasir[4], fruit trees and mills in Al Far'a along the streams from the Al Badhan spring, and vegetables near Asira. There were certainly rules of local law to manage the distribution of water during irrigation periods in Ottoman times, but these remain to be explored.

Local customary rights regarding the management of water resources for irrigation have survived different occupation regimes since the beginning of the 20th century. The British Mandate authorities attempted to reform water rights through the formulation of an agricultural policy that was intended to develop and intensify the use of agricultural land (El-Eini, 1996). The aim was to impose government control over the use of water, and not to establish a regime of public ownership over water, in order to cope with the growing population due to Jewish immigration (El-Eini, 1996, 236). These attempts to reform water rights failed because of an unstable political context, but also because of a lack of access to local information and knowledge about water. After the creation of the State of Israel in 1948, the West Bank became part of the Hashemite Kingdom of Jordan. The latter undertook major hydraulic works on the East bank of the Jordan without having any impact on local water management in the towns and villages of the West Bank (Trottier, 1999, 57).

2 These are loans taken out mainly by olive oil-producing farmers from the merchant elite in the form of "early sale" contracts ("salam contracts"). These contracts allowed farmers to pay taxes or meet certain necessities. In these contracts, the selling price of olive oil was set below the expected market price, with the impossibility of changing this price thereafter. In addition, some contracts included interest rates that minimized the risk taken by merchants (Doumani, 1995, 135-40).

3 Victor Guérin is a language teacher and a member of the Société de Géographie (Geographical Society) of Paris. He carried out several scientific missions in the East for the Ministry of Public Education at the end of the 19th century. His descriptions of Palestine draw on Catholic religious writings to which he refers extensively both to provide historical context and to compare them to his own observations.

4 Today, Tayasir belongs to the Tubas Governorate, but under the Ottoman Empire it was part of the Nablus region. It is a city located northeast of Nablus.

1.2. The Israeli occupation: between development constraints and the autonomy of local management systems

As of 1967, the West Bank was under Israeli occupation. The occupation extended its control over the Eastern and Northern Aquifers in the West Bank (Trottier, 1999, 60). It was subject to Israeli military orders, many of which constrained the development of water resources in the West Bank:

- Military Order No. 92 (of 15 August 1967) gives the Israeli Officer in Charge all power over existing water entities, their functioning, and their directors, and cancels the powers of any legal authority in place regarding water;

- Military Order No. 158 (of 19 November 1967) subjects any Palestinian hydraulic construction to the prior obtaining of a permit from the Israeli authorities, authorizes the refusal, amendment, or cancellation of a permit without justification, and authorizes the confiscation of any unlicensed infrastructure;

- Military Order No. 291 (of 19 December 1968) cancels the Jordanian law of 1952 regulating conflicts over land and water;

- Military Order No. 457 (of 1 March 1972) gives the "Competent Authority", appointed by the Israeli military, the power to decide the value of land and water allocations.

These military orders nullify any existing Jordanian legal provisions regarding water resources and give Israel control over the water resources of the Palestinian territories. They constrain the development of water resources, but do not intervene in the local customary organization of irrigation.

A few researchers have analyzed the local Palestinian "hydropolitical constellations" of irrigation in recent history[5] (Trottier, 1999, 2013, 2015; Trottier and Perrier, 2018; De Donato, 2018). Most agricultural wells in the West Bank operate under communal ownership and are incorporated as a "company"[6] made up of a group of farmers who pooled their resources to drill a well. As such, each member of this "company" obtains a share of water (Trottier, 1999, 105). When one of the farmers wants to irrigate, he must notify the operator of the well, who keeps a list of the time or quantity of water distributed to each farmer. There are also private wells whose water can be used only by the owner of the well; it could also be sold in whole or in part to other farmers. In some villages, wells supply reservoirs, sometimes managed by a farmers' cooperative, from which the water is then distributed (Trottier, 1999, 106). Irrigation from these sources is done in turn: the lands connected to the source by different channels receive water for a period of time determined by the surface to be irrigated, and the water returns at regular intervals according to the number of farmers (Trottier, 2015). Finally, some farmers with storage capacities receive water by tanker trucks, bought at a generally very high price.

5 It is difficult to date these customary water management practices. Those described by the cited authors are the result of recent research. However, it is possible that these practices date back several centuries and that their current forms are the result of a process of adaptation of older practices that have evolved over time and with constraints.

6 In Arabic, "sharikat al bir", literally "well company".

Water tenure patterns affect the management of this irrigation resource. J. Trottier (2015) distinguishes two types of water management: flow management and stock management. The former forces the farmer to manage a constant flow of water, while the latter involves managing a quantity of water expressed in volume (Trottier, 2015, 111). By irrigating via a source, the farmer becomes dependent on the flow of the source and does not control the schedule: during his turn to receive water, the farmer benefits from a period of time during which the water from the source flows into his field. This flow of water returns regularly, depending on the distribution of the water turns among farmers. The farmer does not control the irrigation schedule since it is subject to the social organization regulating water distribution. On the other hand, if a farmer obtains water from a well, he can decide, to a certain extent, his own irrigation schedule. Similarly, the farmer can switch from flow management to stock management by investing in water storage space (basins, cisterns). These types of management are not exclusive and can be combined.

II – WUA's envisioned as a tool for the decentralization of water resource management

The desire to decentralize agricultural water management is manifested primarily through the establishment of water user associations, which are supposed to promote the participation of local actors. Before analyzing the creation of WUAs in the Palestinian context, we briefly review the international discourse around their emergence and the justifications provided by development actors in particular about the establishment of this new form of governance.

2.1. Historicization of the emergence of WUAs

The Irrigation Management Transfer (IMT) policy movement began in the early 1990's and was part of the first neoliberal policies to reform water resource management. The FAO defines IMT as "the transfer of responsibility and authority for management of irrigation systems from government agencies to private-sector organizations that are meant to represent the interests of water users," and it specifies that these new organizations replacing the State most often take the form of WUAs (Garces-Restrepo, Vermillion and Munoz, 2007, 11).

The desire to encourage user participation in the decision-making process is driven by institutions such as the World Bank (World Bank, 1993) and the International Water Management Institute (IWMI) (Vermillion, 1991). Development policies take on a participatory approach to impose a local actor participation model on the decision-making processes established by a central authority. The World Bank promotes user participation in project formulation and in the management of water resources through the creation of WUAs (Mathieu, 1993; World Bank, 1993, 57). The IWMI attaches the notion of participation to that of "turnover management", a shift in irrigation management from government to non-governmental institutions (WUA or private sector) (Vermillion, 1991). This concept seeks to formalize participation by creating new institutions, not by exploring the possibilities offered by existing local institutions. It is similar to that promoted by the Dublin Statement and will be the basis of legislation on Palestinian WUAs.

Despite the apparent novelty of these IMT and WUA creation policies, local irrigation or farmer associations existed long before the 1990's (Ostrom, 1990; World Bank, 1993; Trottier, 1999; Bruns and Meinzen-Dick, 2000; Sokile and Koppen, 2004; Boelens, 2015). However, their existence was not made formal with regard to the state, and this formalization was not necessary for the continuation of their activities until the arrival of the new laws and regulations on water. In many Palestinian villages, farmers have formed agricultural cooperatives to pool certain equipment and are organizing collectively around wells or springs for water supply. The Jordanian law on cooperatives of 1956, recently replaced by a new law on cooperatives, partly regulated their organization that was mainly oriented

towards the agricultural sector (Polat, 2010, 12-13). For example, the association formed around the management of water from the source of Ein Sultan in Jericho is the first water association formally recognized by the Palestinian Water Authority (PWA) by a decree in 1998, following rivalries between the municipality of Jericho and the farmers dependent on the source (Trottier, 1999, 89-90).

2.2. The institutionalization of the Palestinian WUAs

The Palestinian Water User Association (WUA) regulations were enacted in 2018, four years after the new water law. The water law of 2002 already mentions WUA's in Chapter 7 on the creation of regional suppliers. However, no definition is given, nor any details on their constitution. The 2013 national water strategy also mentions the creation of WUAs as a necessary step in restructuring the water sector and describes them as "very important institutional partners in irrigation water management" (Palestinian Water Authority, 2013, 21, 90, 107). The water law of 2014 defines WUAs as "non-profit organizations that are established to manage the supply of irrigation water" (Palestinian Water Authority, 2014, 3). According to Article 48, WUAs must manage irrigation water locally and in a sustainable manner. Article 49 accords them legal personality.

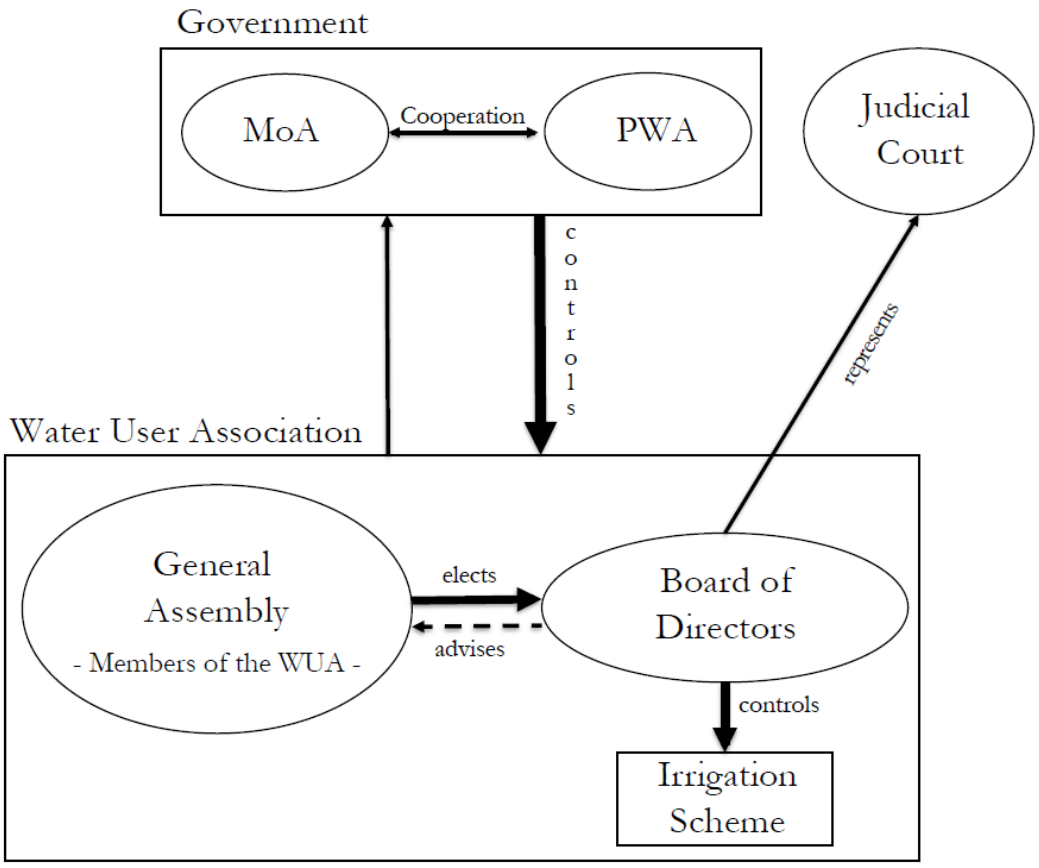
The first chapter of the Palestinian regulation of WUAs introduces the general provisions of the regulation. According to Article 3, the association's geographical area of work must be delimited and identified by the Ministry of Agriculture (MoA), which therefore plays a leading role in the control of WUAs. The second chapter determines the procedures for establishing a WUA and specifies its functions. A WUA can be established if at least ten farmers come together and collectively "own" at least five hectares. Paragraph 1 of Article 4 mentions the verb "own", whereas in paragraph 4 of this same article, members must submit a document including the "areas of the lands owned or used" by members to establish the association. This confusion over land tenure is also found in the provisional Arabic version of 2016[7]. The association has planning, representation, regulation, and service providing functions. The third chapter details the conditions for becoming a member of the association, as well as the rights and duties of members. The fourth chapter focuses on the institutional organization of the WUA and on the functions of each of its organs. The fifth chapter frames the management of the association's financial resources and its relations with non-members. The sixth chapter specifies the conditions and procedures to be followed in the event of the dissolution of the association: for example, in the event of exhaustion of water resources, the association can be dissolved. The seventh chapter indicates the procedures to be followed in the event of a union of several associations. Finally, the last chapter includes the transitional and final clauses.

Chapter 4 on the institutional organization of WUAs suggests a classic internal organization, as recommended by the World Bank (Salman, 1997) and the FAO (Hodgson, 2003, 46). It includes: 1) a general assembly, made up of all members; 2) a board of directors elected by the general assembly; 3) a president elected by the board of directors (see Figure 1). The general assembly approves the association's strategies and budget and approves or

7 The provisional Arabic version provided by FAO also contains this confusion as to the verbs used: the verb يمتلك appears in the first paragraph and means "to own", while paragraph 4 has "the lands owned" الاراضي المملوكة and those "used" المنتفع.

amends the rules of procedure. The board of directors exercises control over the irrigation perimeter since it determines the water prices as well as the water distribution schedule. It must take the necessary measures to ensure "optimal and efficient use of water". In addition, it represents the association before official institutions and judicial authorities (Palestinian Authority, 2018, Article 22). Finally, the PA, through the MoA and the PWA, controls the functioning and the agricultural strategies of the WUA, particularly with regard to the choice of seeds and the irrigation schedule.

Figure 1. Diagram of the institutional organization of WUAs and their integration into the state system according to the 2014 regulation



Source: Jeanne Perrier

The FAO played a key role in writing this regulation and in disseminating the official model of the WUA. It organized workshops as part of the "Strengthening capacities and supervision of the services provided to farmers in the West Bank" project, in order to support farmers wishing to form a WUA. Thirteen "committees" of water users were formed in April 2018 in different villages: none was officially recognized in 2019 by the MoA as a WUA.

2.3. WUAs subject to strong criticism: between parachuting, idealization, and micro-local power issues

Nevertheless, the creation of WUA's also raises several critiques. First, some authors describe a parachuting of these new exogenous institutions, which are imposed from above. P. Mathieu (1993, 249-53) notes the institutional weakness of the newly established WUA's in Madagascar, the creation of which was the necessary condition imposed by the World Bank for the realization of an agricultural rehabilitation project. F. Cleaver (1999) offers a critical reading of participatory approaches to water management by questioning the effectiveness of these modes of organization, their ability to give back power to local irrigators, and their institutionalization. D. Suhardiman (2013) demonstrates the complexity of imposing an IMT policy in the face of an Indonesian bureaucracy unconvinced of this organizational change. The Palestinian example confirms this problem of the imposition of an exogenous structure in the management of irrigation. In the region of West Nablus, for example, several endogenous organizations already existed, including a farmer's cooperative and an association for the protection of land against Israeli colonization. However, it is not always easy to build on these pre-existing organizations which themselves fit into power relations, sometimes excluding other local actors.

Second, WUAs can replicate existing power inequalities and strengthen already dominant individuals or social groups. In Jordan, the creation of WUAs has a mixed impact, as they tend to reflect the social landscape of the regions in which they are located, confirming the domination of certain tribes or farmers, or accentuating rivalries (Mustafa, Altz-Stamm and Scott, 2016). This is also the observation made by K. MacDonald (2019) in Tajikistan, which demonstrates that WUAs can generate exclusion and threaten the food security of certain groups. This ties in with the criticism formulated by F. Cleaver (1999) regarding the myth of the "community" that the creation of a WUA can maintain. A WUA does not necessarily represent a homogeneous community and should not prevent taking into account the power relations intrinsic to water micro-politics.

Finally, questioning the institutionalization of WUAs and their exogenous character should not lead to idealizing the customary organization of irrigation. It is multiple and not static, which makes it capable of adapting to different constraints. It is based on local knowledge, often juxtaposed with "expert knowledge", but is increasingly used by development actors to justify development from below. This local or indigenous knowledge then becomes instrumentalized and institutionalized by development projects in which the inclusion of this knowledge represents the guaranteed participation of local actors (Briggs, 2005; Briggs and Sharp, 2004). Criticizing the establishment of WUAs therefore does not mean setting up the mode of local organization as a model, but questioning the power relations at play, and analyzing the oppositions and adaptations in the process of changing irrigation management.

This literature confirms the need to provide a critical reading of WUAs in the Palestinian context, especially as development agencies have started, since 2019, to support their creation[8].

8 The German development bank (KfW) encouraged this as part of the West Nablus wastewater reuse project. For its part, AFD will begin the process to create a WUA in Gaza in 2020, for the reuse of wastewater as well.

III – Vertical integration of water resource governance, under the guise of decentralization

The Palestinian case reflects strong investment by state institutions in water management, rather than an increase in the participation of local communities in decision-making processes. The regulation on Palestinian WUAs institutionalizes a specific type of association and delegitimizes informal irrigating institutions that do not meet the imposed criteria.

In this last part, we will examine how the regulation of 2018 upset the institutional and decision-making trajectories of irrigation water and allowed a reappropriation of the management of irrigation water for the benefit of state institutions. Finally, we will end by demonstrating that these new legislative tools encourage centralization rather than decentralization processes in the management of water resources.

3.1. A reappropriation of water management for the benefit of state institutions

Existing Palestinian legislative instruments struggle to recognize local and customary irrigation arrangements. The water law of 2014 refers to a regulation to be submitted to the Cabinet of Ministers regarding "prior use rights from springs or licensed quantity of water extracted from wells" (Palestinian Water Authority 2014, Article 31b). The local hydropolitical constellations described above do not appear in the legislation. There is also no question of the many illegal wells, nor of the existing agricultural associations and cooperatives that manage the water. We have to wait for the promulgation of the regulation on WUA's in 2018 to learn more about the fate of pre-existing associations. Article 41 ("Correcting Status") states:

"Any association established prior to effectiveness of provisions of this Regulation is considered officially registered, given that it corrects its status in accordance with the provisions of this Regulation during a maximum period of (6) months starting the day it entered into force, otherwise it will be considered in violation with the Regulation provisions." (Palestinian Authority, 2018, Article 41).

Through these legislative tools, the Palestinian Authority renders illegitimate any form of management that does not meet legal criteria, thus protecting its centrality in the water sector: it only legitimizes modes of organization that are institutionalized and accountable to it. It ignores local customary rights, contrary to the trend observed in modern water laws.

The definition of the WUA functions in the 2018 regulation responds to the ambitions of modernization of agriculture and the efficient use of water set out in the Palestinian national water strategy of 2013. The functions of the WUA are thus, among others: 1) to train farmers in irrigation; 2) to adopt modern irrigation techniques to encourage water saving and achieve efficient water use; 3) to educate farmers on the choice of seeds and sowing and irrigation schedules "to achieve efficiency and optimal use of water" (Palestinian Authority, 2018,

Article 9, paragraphes 10-12). On several occasions, the national water strategy of 2013 mentions the importance of involving "formal" WUAs ("formal water users' associations") to ensure "optimal" management of the water resources used for irrigation (Palestinian Water Authority, 2013, 15, 17). The objective of the WUAs is therefore to serve the national water strategy.

The PA is implementing a policy decentralizing the management of water resources in a political and institutional context different from that usually encountered. There has never been a nationalization of water resource management in the Palestinian territories as has been the case in other countries, such as Israel (Alatout, 2007), Ecuador, and Chile (Boelens, Hoogesteger and Baud, 2015) before the 1980's. Certain regions, in particular Latin America, then experienced a period of neo-liberalization in the 1990's, witnessing the denationalization and often privatization of water resources, before adopting a hybrid model in the 2000's (Harris and Roa-García, 2013). The Palestinian territories have not witnessed as much change. As seen above, Palestinian water resources were subject to different sources of rights: Israeli, Jordanian, local, and national, since the first Palestinian water law in 2002. There has been no nationalization or privatization of water resources, but a large domination of customary systems (Trottier, 1999, 2007, 2015).

Given the high level of decentralization in the historical and current management of Palestinian water resources, the hyper-centralization of the PWA denounced by the World Bank (2009, 57) essentially refers to internal organizational problems of the PWA, and not to the water resource management methods at work in the field. The water laws of 2002 and 2014 did not take these realities into account and denied the already decentralized nature of irrigation and domestic water distribution, in the hands of local authorities and actors (municipalities, village councils, farmers). The reform of the water sector implemented within the PWA therefore resembles more of a centralization of management, under the guise of decentralization. The 2002 and then 2014 laws provide for the creation of various institutions, more or less independent of the PWA, but within the public sector and subject at least to the control of the PA. The goal is to centralize the control of water resources at the national level.

In that sense, this process resembles the policy pursued in Ecuador by former President R. Correa from 2006, when the WUA's consisted of a means for the State to regain control over water resources (Boelens, Hoogesteger and Baud, 2015, 285). To become officially recognized, the user groups had to respect the rules put in place by the government. These rules allowed the state to control the organization and activities of these groups, through the appointment of technicians in the WUA's. Palestinian regulation on WUA's tends towards this policy of centralization.

The World Bank defines decentralization as "the distribution of responsibilities for decision-making and operations to lower levels of government, community organizations, the private sector, and non-governmental organizations" (World Bank, 1993, 5). The decentralization envisioned by the World Bank essentially consists of the delegation of executive tasks, and not a decentralization of the control of resources (Trottier 1999). The WUA regulation states that some decisions are indeed taken within the WUAs, but always in cooperation with the MoA and the PWA. According to the WUA regulation, the MoA is in charge of receiving requests for the creation of associations (Palestinian Authority, 2018). It examines them first,

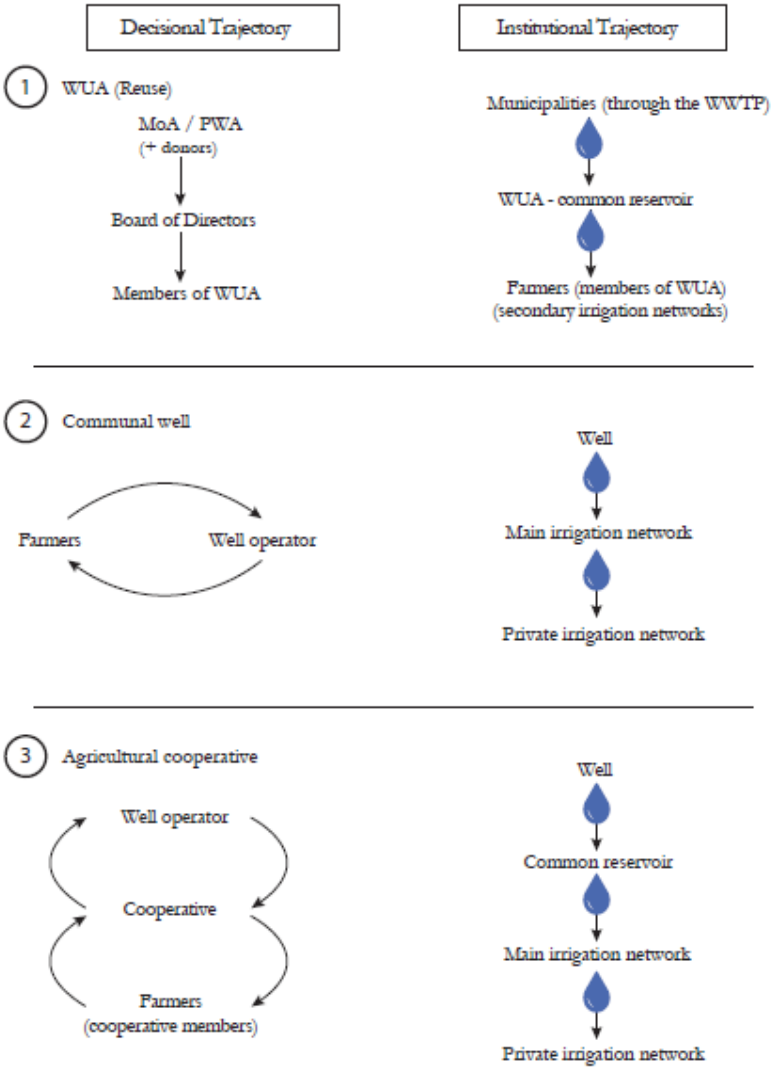
and if they are validated, it transmits the requests to the PWA to verify either the validity or the obtaining of licenses for the associations to use water resources. An association can only be created if the MoA and the PWA give their respective approval. Furthermore, the MoA must validate the choice of seeds and the irrigation perimeters allocated for each, all of which are proposed by the association in question. Finally, the MoA must be notified of all status changes. Despite the imperative to coordinate with the PWA with regard to water resources, the WUA legislation strengthens the power of the MoA in treated wastewater reuse projects. The PWA did not want the MoA's intervention in water management, however. Rivalries linked to the sharing of responsibilities with regard to WUA's, and a fortiori to agricultural water management, partly explain the slowness of the promulgation of the WUA regulation, four years after the 2014 water law.

The strategy at work is therefore the following: producing a discourse of decentralization, which resonates in international arenas via the participatory approach encouraged by donors, while in practice, it is a question of dispossessing farmers of their control of their lands and crops by way of the WUA's. In that sense, the law reproduces the acceptable and hegemonic discourse, while in practice, the application of laws and regulations leads to a reverse process of centralization of water resource management.

3.2. A change in the decision-making trajectories of water

The water laws of 2002 and 2014, as well as the WUA regulation, modify the decision-making trajectories of water. We define the decision-making trajectory of water as the non-material trajectory of water through the various institutions whose decisions directly affect the material trajectory of water. This differs from the institutional trajectory of water as defined by J. Trottier et al. (2019), representing the material flow of water through different human institutions responsible for its management. Different institutions make decisions that will impact the trajectory of the water. Considering the decision-making, non-material trajectory of water highlights the co-optation of water management by Palestinian state institutions. Figure 2 represents different decision-making trajectories of water according to the modes of water governance. It compares the actors involved in an organization based on (1) a WUA as defined by the regulation, (2) a community well, and (3) an agricultural cooperative. It also compares these decision-making trajectories to the respective institutional trajectories of these three cases.

Figure 2. Water decision-making trajectory defined by the Palestinian regulation on WUAs



Source: Jeanne Perrier

Different actors intervene in the decision-making process at different times. In the case of a farmer relying on a community well for irrigation, the decision to access water depends both on the farmers who submit their requests to the well operator, and on the operator who decides how to organize the irrigation schedule. For the agricultural cooperative, the process is very similar, but it also includes the cooperative which is supposed to negotiate access to water for all member farmers. In both cases, the decision-making trajectory is quite circular because the exchange occurs among these different actors in a rather restricted time frame. The operator of the well is always the final decision-maker. In the case of a WUA hypothetically set up for a wastewater reuse project, the decision-making trajectory spreads over very dispersed actors, both from a spatial and an institutional point of view. It includes both ministerial actors and farmers. However, this diversity does not reflect an increased participation of farmers in the decision-making process; it is rather a sign of vertical governance where the members of the WUA only receive the decisions taken upstream.

In the case of Palestinian WUAs, it is important to differentiate the material from the non-material trajectory of water to show how this resource is appropriated at different scales. According to Article 9, the MoA ensures the achievement of the objectives presented above, particularly by controlling the seeds planted, while the PWA supervises the irrigation system and schedule. This demonstrates a co-optation of agricultural water resource management by the PA, through these ministries. In addition, the board of directors is responsible for training farmers on crop rotation models for so-called efficient use of water (Palestinian Authority, 2018, Article 22). It is expected that the members of this board will themselves be trained by the MoA and the PWA for administrative functions, but also for water distribution strategies (Palestinian Authority, 2018, Article 26). This co-optation is not perceivable if we were only to consider the material trajectory of water. Decision-making bodies, such as the MoA, the PWA, and the Board of Directors interfere in decisions about water use: who uses this water? How? For what? When? These decisions interfere indirectly with the material trajectory of water. Water does not physically flow through the MoA, but decisions about it must pass through this ministry. Water physically flows through the hands of the farmers, who are responsible for opening the valves of their irrigation system. However, their decision-making power becomes nearly nullified with this new organization, reducing their role to that of a technician.

The decision-making trajectory defined by the WUA regulation establishes a distinction between the legal organization and the legitimate organization of water management. The legality of the mode of organization depends on respect for this decision-making trajectory, where the Palestinian central authority is over-represented, to the detriment of the local institutions and the farmers concerned. The WUA regulation as well as the 2014 water decree and the 2013 national water strategy define the WUA as the legal mode of organization for irrigation perimeters. The analysis of the decision-making and institutional trajectories defined through these documents therefore makes it possible to define the legal and legitimate mode of organization in the eyes of the central authority, the PA. However, local water management practices legitimize other forms of organization, which have been made illegal from the PA's point of view.

This analysis is based solely on the analysis of gray literature and regulatory texts because no WUA is operational yet. Only one was created in 2019 to manage the wastewater reuse scheme in West Nablus, but it is not yet operational. It is therefore not possible to explore the practices and appropriations of this concept by farmers. The feeble application of the 2014 decree suggests that there may also be some room for maneuver and flexibility in the application of the WUA regulation. It would be interesting to examine how the farmers in question appropriate these new structures, first by studying which actors appropriate them, and then by looking into the consequences they have on pre-existing power relations, both at the micro-local level and the macro level.

Conclusion

The decentralization discourse promoted by donors and taken up by the PWA to justify agricultural water reforms support a vertical integration of resource management, in other words an appropriation of decision-making mechanisms concerning water on a regional, even national scale. The regulation on the creation of WUAs is a striking example of this. In the international discourse mobilized in the water sector, these WUAs represent a decentralization tool. Decentralization is supposed to increase the participation of local actors in decision-making processes, particularly to counter previous water resource nationalization processes. However, the Palestinian case stands out: there has never been any nationalization of water resources, and decision-making power over water resources essentially rests in the hands of local actors, at the local level: particularly with farmers and operators of wells for agricultural uses.

The analysis of the new regulation on the creation of WUAs and the comparison of the decision-making trajectories of different modes of water management show that the so-called decentralization process is actually more of a centralization process of water resource management. The power of the PWA is not diluted in participatory management as encouraged by international actors. The WUA regulation give the PWA and the MoA decision-making power for the use of agricultural water, unlike the existing, much more diverse and effective organizations. While it is still too early to compare how this regulation will be received by affected farmer groups, its analysis illustrates the structure of state domination it supports. The regulation transforms farmers into land technicians, reducing their wiggle room in carrying out their strategies. It remains to be seen whether this will push farmers to generate different strategies in an attempt to adapt to or bypass this regulation, as they either appropriate or get rid of these constraints.

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