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THIRST FOR WATER JUSTICE IN TUNISIA

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About the study

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Cover photo: A woman carrying water in a rural setting in Tunisia

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السويد Sverige

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Abstract

This research explores the multifaceted landscape of water justice in Tunisia, a country experiencing chronic water scarcity, institutional fragmentation, and growing socio-political tensions over resource distribution. Through a justice-centered framework that includes distributive, procedural, recognition, and capabilities dimensions, the study examines how inequalities in water access and governance disproportionately affect rural populations, small farmers, and marginalized groups. By combining a desk review of legal, institutional, and policy studies, with empirical methods, this report uncovers the systemic power imbalances and political choices that shape Tunisia's water priorities. It also highlights the limited influence of civil society organizations (CSOs) in formal policy making, despite critical advocacy efforts. Ultimately, this research argues that achieving water justice in Tunisia requires a shift away from technocratic and donor-driven solutions toward inclusive, context-sensitive governance that puts at its center equity, public participation, and community needs.

Introduction

Tunisia stands at a crossroads in its management of a vital yet increasingly scarce resource: water. Situated in an arid to semi-arid climate zone, the country faces acute water stress exacerbated by climate change, infrastructural decay, and uneven access to water across its diverse regions. While official narratives often present water challenges as technical or environmental in nature, this research argues that these challenges are deeply political, embedded in historical exclusionary patterns and shaped by decisions that privilege economic growth and industrial needs over equitable access.

This study adopts a water justice framework to critically assess how Tunisia's water governance system distributes resources, involves stakeholders, and recognizes the needs of marginalized populations. Drawing on interviews with civil society actors, small farmers, and public officials, as well as a desk review of the regulatory and institutional landscape, the research unpacks the lived experiences of injustice that go beyond scarcity. From urban-rural disparities to the commodification of water through export agriculture and bottled water industries, this study reveals a recurring pattern: those who are least responsible for water stress often bear its heaviest burdens.

In doing so, this research seeks not only to document water injustice but to identify pathways for more equitable governance. It contends that water justice in Tunisia can only be realized through a democratic reorientation of water policy: one that centers local voices, disrupts entrenched hierarchies, and challenges the symbolic inclusion of civil society in favor of real power-sharing. At stake is not just the allocation of a dwindling resource, but that the realization of dignity, rights of current and future generations, and collective well-being come at a time of deepening environmental and social precarity.

To this end, the research will ask how water policies are currently made in Tunisia, why past strategies have failed, and who benefits or is excluded from current practices. It will examine the extent and format of civil society participation, how CSOs envision meaningful engagement and the resources they would need, as well as what a "just transition" in water governance could look like. Finally, it will assess the role of international actors, particularly the EU, in shaping Tunisia's water sector and explore what concrete, politically feasible steps could be taken to ensure genuine local community and CSO inclusion in building fairer water governance.

Desk review

1. Governance of Water in Tunisia

1.1. Tunisia's Water: Key Facts and Figures

Tunisia, characterized by an arid and semi-arid climate, faces significant water stress exacerbated by geographical and seasonal disparities during rainfall. Annual precipitation varies widely across the country, with less than 100mm per year in the South and up to 1,500 mm in the Northwest.[1] These regional disparities intensify Tunisia's vulnerability to chronic water shortages, further complicated by the impacts of climate change.

The total renewable water resources available in Tunisia are estimated at approximately 4.865 billion cubic meters annually; divided into surface and groundwater resources: 2.7 billion cubic meters of surface water and 2.165 billion cubic meters of groundwater, respectively.[2] Average water consumption per capita in Tunisia is estimated at 420m^3 per year, significantly lower than regional and international averages. In comparison, the average per capita consumption in the MENA region is around 550m^3, while the World Health Organization (WHO) recommends between 700 and 900m^3 per capita to meet basic needs. With an annual water availability per capita below 500m^3, Tunisia falls well below the internationally recognized water scarcity threshold of 1,000m^3 per capita, ranking it among countries facing severe water stress.[3]

1 Office of Planning and Hydraulic Balancing, *National Report of the Water Sector*, Tunisian Ministry of Agriculture, Water Resources and Fisheries, 2021, https://tinyurl.com/2vbrmrfs [Office of Planning and Hydraulic Balancing, *National Report*]

2 Office of Planning and Hydraulic Balancing, *National Report*.

3 Ministère de l'Agriculture, de la Pêche Maritime et des Ressources Hydrauliques, Bureau de la Planification et des Equilibres Hydrauliques

Tunisia has, since its independence in 1956, developed an extensive water infrastructure to harness available resources, yet this system is increasingly insufficient for the country's growing demands, particularly as its infrastructure ages at an inadequate pace, including 37 major dams with a combined maximum capacity of 2,313 million m^3, as well as 258 hill dams and 922 hill lakes with a total capacity of 360 million m^3. Surface water resources have a mobilization rate of 92%, indicating that Tunisia is nearing full exploitation of its available surface water. However, dam fill rates are alarmingly low. As of November 2024, Tunisia's dam fill level was only at 20.5% total capacity, marking a steady decline from 64.7% in 2019.[4] This trend underscores the critical shortage of water resources, driven by reduced rainfall linked to climate change and a progressive loss of storage capacity due to sediment accumulation in dam reservoirs.

1.2. Legal and Regulatory Framework

The historical evolution of Tunisia's water legislative framework reflects a significant accumulation of laws over time, beginning with the French colonial period. Since Tunisia's independence in 1956, its legal arsenal has expanded, especially in 1975, when the "Code des Eaux" (Water Code) was enacted as the principal regulatory framework. However, despite the many decrees, orders, and amendments established over the following decades, no substantial updates have been made to the code since its introduction in 1975. The following is a timeline showing the changes in water regulation over the years.

Colonial Period: The French colonial administration introduced early water regulation to formalize the exploitation and management of Tunisia's water resources. Key regulations during this time included orders from 1885 to 1945 that addressed public water ownership, well management, water conservation, and infrastructure oversight, creating a foundation for later regulatory frameworks.

Post-Independence Pre-1975: Following independence in 1956, Tunisia continued to develop its water legislation. Laws from 1958 to 1972 focused on areas like watershed management, soil and water conservation, and water rights, culminating in the final measures leading up to the 1975 Water Code.[5]

The Water Code of 1975: Enacted by Law No. 16 of 1975, the Water Code consolidated all previous regulations related to water as a public resource and introduced comprehensive policies on water allocation, management, and protection.[6] This code remains the core legal framework for water resources in Tunisia, despite the absence of major reforms since its establishment – the Water Code bill has yet to be adopted: The Draft Law 66/2019 on the promulgation of the new Water Code has been postponed.[7]

Constitutional Developments: The Tunisian constitution of 1959 made no explicit references to water rights. This changed with the 2014 constitution, which enshrined the right to water in Article 44, affirming state responsibility for its protection and sustainable use. The 2022 constitution further emphasized equitable access to potable water and water resource preservation for future generations in Article 48.[8]

and KFWgiz, *Élaboration de la Vision et de la Stratégie du Secteur de l'Eau à l'Horizon 2050 pour la Tunisie: EAU 2050*, June 2023, https://tinyurl.com/avyye9t8

4 Observatoire National de l'Agriculture (ONAGRI), "Situation des Barrages", https://tinyurl.com/23nrkcsu

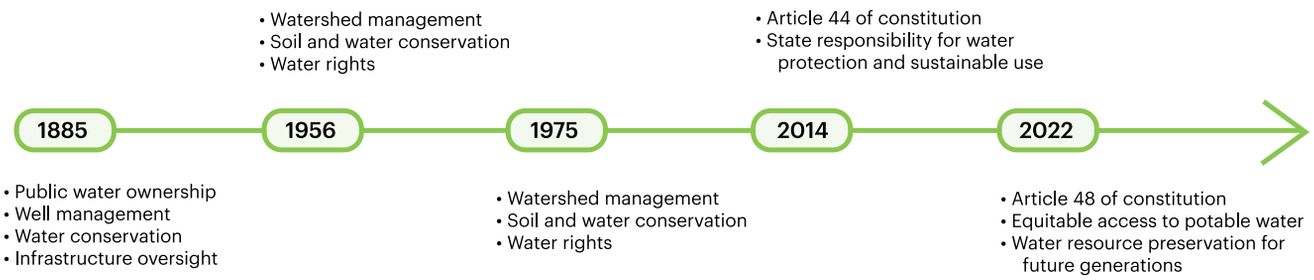
5 سيدة الغزواني وحسين رحيلي، المنظومة التشريعيّة والقانونيّة للمياه في تونس: قراءة تحليليّة ونقديّة،
Nomad 08, Observatoire Tunisien de l'Eau and Rosa Luxemburg Stiftung North Africa Office, 1 January 2019, https://tinyurl.com/5n94nhhe
[الغزواني ورحيلي، المنظومة التشريعيّة والقانونيّة للمياه]

6 روضة قفراج، قراءة في مشروع مجلة المياه، مؤسسة هنريش بول تونس، حزيران/يونيو2020، https://tinyurl.com/39y7zea5

7 African Manager, "The Water Code, Still as Divisive as Ever!", 15 July 2021, https://tinyurl.com/5688fwyy

8 الغزواني ورحيلي، المنظومة التشريعيّة والقانونيّة للمياه.

Figure 1: Timeline Showing the Changes in Water Regulation over the Years



Note : Elaborated by the author based on Nomad 08 (2019); Gafraj (2020); Assemblée des Représentants du Peuple (2021).

While Tunisia's legal framework for water management is extensive, its relevance has diminished due to a lack of substantive updates since the 1975 Water Code. This outdated framework struggles to address modern challenges, such as resource scarcity, population growth, and the impacts of climate change, which have placed Tunisia among the most water-scarce countries globally. The constitutional recognition of the right to water, although symbolic, has not been complemented by practical legislative reforms that enforce this right within a modernized regulatory structure.[9] This stagnation has led to inefficiencies and contributed to inequities in water access, particularly between urban and rural areas and between small farmers and larger investors.

One of the most pressing challenges in water governance in Tunisia lies in the government's persistent framing of water issues as purely technical problems. As highlighted in Bouazzi's work,[10] official discourses have often rendered water policies "technical", presenting governmental measures as both "necessary" and "urgent". This framing grants projects a certain "immunity" to criticism, elevating them beyond the realm of political debate and restricts the scope of action for opposing voices.[11] However, Bouazzi underscores that this depoliticization is not irreversible. For example, in the debate surrounding Draft Law 66/2019 on the promulgation of the new Water Code, opposition actors challenged the prevailing discourse with alternative technical arguments by proposing a broader vision for society, thereby repoliticizing the issue.[12] This dynamic illustrates that technical discourses, while dominant, can be contested to reframe water governance as a deeply political matter.

1.3. Structural and Institutional Framework

Tunisia boasts a complex institutional water management system, rooted in a long-standing tradition of water infrastructure dedicated primarily to irrigation. This heritage includes extensive waterworks and wells that underscore the country's ancient focus on agricultural water needs.

This focus on water infrastructure for agriculture is rooted in Tunisia's economic policies since its independence, particularly regarding cash crops. Since the 1970s, the state implemented a clear hydro-agricultural policy to overcome climatic constraints and achieved national goals in agricultural production, potable water access, and rural development. These efforts included financial measures (investments), legal reforms (agrarian reforms, legislative framework), and institutional support (assistance to irrigators). This policy led to the significant investments in hydraulic mobilization infrastructure mentioned earlier, such as large and small dams, hillside reservoirs, and water distribution networks, as well as a better understanding and utilization of groundwater resources (Table 1).[13]

9 الغزواني ورحيلي، المنظومة التشريعيّة والقانونيّة للمياه.

10 Kais Bouazzi, "Immunity through Technification? A Critical Review of Water Governance Discourses in Tunisia". *WIREs Water* 11, no. 6 (2024) e1757, https://doi.org/10.1002/wat2.1757

11 Ed Atkins, "Disputing the 'National Interest': The Depoliticization and Repoliticization of the Belo Monte Dam, Brazil", *Water* 11, no. 1 (2019) 103 https://doi.org/10.3390/w11010103

12 The term re-politicize is used to emphasize that depoliticization is not a one-way or irreversible process. As Bouazzi highlights, water governance is a dynamic and contested arena where political meaning and power can be withdrawn, then reasserted and reclaimed over time.

13 Inés Gharbi and Mohamed Elloumi, "L'Agriculture Irriguée en Tunisie: Politiques Hydrauliques et Politiques de Régulation Foncière" [Tunisia Irrigated Agriculture: Irrigation Policies and Land Regulation Policies], Cahiers Agricultures 32 (2023) 17, https://tinyurl.com/56ckvkdn [Gharbi and Elloumi, "L'Agriculture Irriguée en Tunisie"] *Cahiers Agricultures* 32 (2023) 17, https://tinyurl.com/56ckvkdn [Gharbi and Elloumi, "L'Agriculture Irriguée en Tunisie"]

Table 1: Evolution of Water Management Policies in Tunisia

Date	Measures	Objectives
1970	Investments: Start of construction of hydraulic mobilization infrastructure	• Agricultural development. • Development of rural areas.
1973	Creation of OMPI (Offices for Agricultural Development)	• Water resources management. • Support for irrigators.
1975	Water Code (Law n°75-16 of 31 March 1975)	• Setting priorities and mechanisms for water allocation.
1975–1977	Three Regional Water Master Plans (North, Center, South)	• Identification of available water resources. • Planning water mobilization and allocation.
1986	Adoption of the Structural Adjustment Program (SAP)	• Liberal economic policy.
1989	Dissolution of OMPI	• Reduction of state intervention. • Encouragement of private actors.
1993	Investment Incentive Code (Law n°93-120 of 27 December 1993)	• Encouraging investment in the agricultural sector, especially irrigation.
1995	National Water Economy Program in Irrigation	• Reducing water losses, improving network efficiency, and subsidizing drip irrigation.
1999	Creation of the ICs (Water Users Groups) (Law n°99-43 of 10 May 1999)	• Decentralization of state services. • Management of water resources and irrigated public perimeters.
2004	Creation of GDAs (Agricultural Development Groups) (Law n°2004-24 of 15 March 2004)	• Protection and utilization of natural resources.
2011	Revolution: Change of political and economic context; regulatory reforms for water resource management and protection Regulatory reforms for better water governance and protection.	
2020–2023	Draft of the new Water Code	• Strengthening of the associative model. • Promoting equity between regions. • Evolution of GDAs.

Source: Gharbi and Elloumi, "L'Agriculture Irriguée en Tunisie". Translated from French by the author.

The National Water Distribution Utility (SONEDE) is the primary public institution responsible for managing and distributing drinking water. Under the authority of the Ministry of Agriculture, Water Resources and Fisheries, SONEDE serves the entire urban population and approximately 51% of rural residents. This provision is supported by extensive hydraulic infrastructure, including surface water facilities and a network of wells that sustain access to potable water.

However, the remaining 49% of rural residents, many of whom live in poverty or vulnerability, receive drinking water through Agrarian Development Groups (GDAs). These community-based organizations, numbering around 2,500, are also overseen by the Ministry of Agriculture, Water Resources and Fisheries, in partnership with Regional Commissions for Agrarian Development (CRDAs). Together, these GDAs manage both irrigation and drinking water services, supporting around 1.275 million people across Tunisia's rural areas.[14]

Bureaucratic inertia[15] and an overlapping, fragmented institutional structure hinder Tunisia's water resource management. While SONEDE manages the distribution of potable water, it relies on the Ministry of Agriculture for water production. Although SONEDE operates under the supervision of the Ministry, it retains its own legal and institutional autonomy, which often leads to coordination gaps. Combined with a complex bureaucratic structure, this division contributes to delays and inefficiencies. Furthermore, the National Sanitation Utility (ONAS), responsible for wastewater collection and treatment, was assigned an additional mandate in 1993 to protect aquatic environments, a function that intersects with the National Agency for Environmental Protection (ANPE), which also monitors pollution and treatment facilities. These overlapping responsibilities and the lack of cohesive coordination significantly slows decision-making and obstructs the implementation of efficient, strategic responses to critical challenges like climate change and water scarcity.

Despite the pressing need for institutional reform, the government appears to prioritize a technocratic approach without adopting a scientifically integrated water management strategy. For instance, scientific recommendations to implement Integrated Water Resource Management (IWRM) – an approach that emphasizes coherence and sustainability in water management – are either neglected or only partially applied, thus limiting their effectiveness.

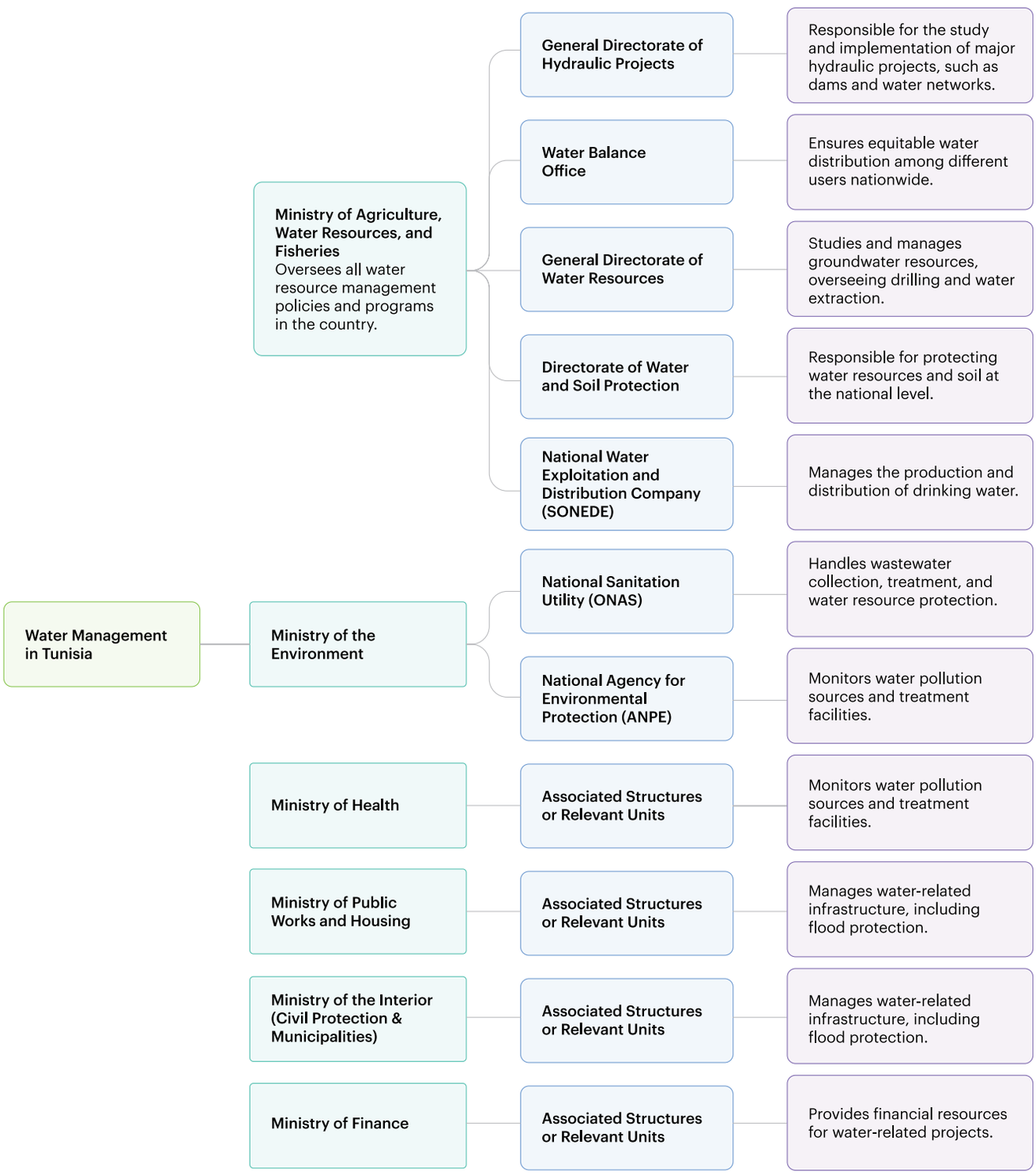
A closer look at the institutional landscape reveals a complex network of agencies and ministries, each with distinct roles and having interdependent responsibilities,[16] as Figure 2 shows.

14 The Office of the High Commissioner for Human Rights (OHCHR), *A/HRC/51/29/Add.1: Visit to Tunisia – Summary of Findings and Recommendations by the Special Rapporteur on the Human Rights to Safe Drinking Water and Sanitation, Pedro Arrojo Agudo*, 11 July 2023, https://tinyurl.com/3ahbjufj [OHCHR, A/HRC/51/29/Add.1: Visit to Tunisia]

15 Bureaucratic inertia stems from the stagnation of both the legal and institutional frameworks.

16 الغزواني ورحيلي، المنظومة التشريعيّة والقانونيّة للمياه.

Figure 2: Overview of Ministries, Institutions, and Functions in Water Management in Tunisia



Source: (In Arabic) Sayeda Al-Ghazwani and Hussein Rahili, The Legislative and Legal Framework for Water in Tunisia: An Analytical and Critical Review (https://www.watchwater.tn/fr/blog/2020/1/1/45-/)

2. Concept of Justice in the Water Sector

2.1. Why Justice Matters in Water Governance

Neal et al. explore the complex challenges that water policymakers and managers face when allocating water resources, especially as they navigate conflicts and dilemmas tied to issues of fairness and justice in water distribution. [17] Key insights indicate that, while many water agencies aim to implement equitable and just policies, there is often a lack of concrete knowledge on how to define and operationalize justice principles in practice. As a result, conflicts can arise due to ambiguous interpretations of equity and fairness, particularly in cases of environmental water allocations or reallocations among user groups.

Neal et al. emphasize that social justice in water resource management is multi-dimensional and context-specific, making it difficult to establish a single method for creating the most "just" policies.[18] Nevertheless, general principles can help raise awareness of justice concerns during policy formulation to mitigate unintended social and environmental consequences.

The authors propose a framework for "water justice" that includes four fundamental aspects of water's unique nature in relation to justice. These form the basis toward more equitable water governance practices, aimed at aiding researchers and practitioners in developing a coherent approach to water justice.[19]

There are four unique characteristics of water that have significant implications for both social and environmental justice:

- Spatial and Temporal Uneven Distribution of Water: Water's geographic and seasonal availability is inherently uneven across the country, leading to disparities in access. The natural advantage of having sufficient, high-quality, and timely access to water benefits some people but not all. This disparity isn't based on any human claims like deservedness; however, it does result in some individuals having better opportunities than others to survive and thrive.
- Essentiality of Water for Life: Water is indispensable for all forms of life, requiring minimum quantities for the survival of ecosystems and humans. This characteristic demands equitable access to meet basic needs for health and environmental sustainability.
- Water's Contributions to Human Well-Being: Beyond basic survival, water provides numerous goods and services that enhance the quality of life, such as agriculture, sanitation, and recreation. This ensures justice manages these benefits equitably across communities and takes into account the varied social and economic needs.
- Political Dimensions and Power Asymmetries in Water Governance: Power imbalances often shape water governance, where certain groups have more influence over water policy decisions than others. This political dimension calls for justice-focused frameworks to address inequities in water access and decision-making.

2.2. Is Water Justice Truly Universal or Context-Specific?

Sultana[20] underscores the inherent connection between water justice and broader socio-political issues like democracy, citizenship, and development, highlighting water's role in both local and global crises of access and equity.[21] Water justice, Sultana argues, "must go beyond technical or universal solutions to address the unique, context-specific social, ecological, and political challenges faced in different regions". Justice in water governance is described as "relational, situated, and context-sensitive rather than universalistic",[22] meaning that what constitutes "just" water management can vary significantly depending on local needs, values, and governance structures. This perspective challenges

17 Marian J. Neal, Anna Lukasiewicz and Geoffery J. Syme, "Why Justice Matters in Water Governance: Some Ideas for a 'Water Justice Framework'", *Water Policy* 16, no. S2 (2014) pp. 1–18, https://doi.org/10.2166/wp.2014.109 [Neal et al., "Why Justice Matters"]

18 Neal et al., "Why Justice Matters".

19 Neal et al., "Why Justice Matters".

20 Farhana Sultana, "Home", https://farhanasultana.com

21 Farhana Sultana, "Water Justice: Why It Matters and How to Achieve It", *Water International* 43, no. 4 (2018) pp. 483–493, https://doi.org/10.1080/02508060.2018.1458272

22 Dik Roth et al., "Water Rights, Conflicts, and Justice in South Asia", *Local Environment* 19, no. 9 (2014) pp. 947–953, https://doi.org/10.1080/13549839.2012.752232

the notion of a one-size-fits-all approach to water rights, advocating instead for fairness, equity, and participation tailored to specific circumstances.

Sultana discusses how global movements for water justice have called for changes to existing water governance practices.[23] These movements have successfully influenced international policies, such as the United Nations' recognition of the Human Right to Water in 2010, which was supported by 122 countries. However, 41 countries abstained, including the U.S., Canada, and several European nations, demonstrating the contested nature of this right at the global level. Such resistance underscores that, despite the UN resolution, the principles of equity and affordability are not always straightforward in all contexts.[24]

Examples of water justice movements, like the Cochabamba water protests in Bolivia[25] and the re-municipalization of urban water utilities in places like Jakarta, illustrate the diverse approaches communities and activists have taken to reclaim water access from privatized entities. These efforts highlight the need for local control and the importance of recognizing community-based and indigenous water management solutions.[26] By fostering community participation and accountability, these movements have strengthened water democracy on smaller, more meaningful scales across Latin America, Asia, and Africa.

In Tunisia, the post-2011 era has seen an increasing number of environmental protests (127 in 2023) centered on water justice, access to land, and the right to a healthy environment.[27] A compelling example is the El-Houwaydia sit-in,[28] initiated in late 2019 by residents of the Houwaydia village near Tabarka. The movement emerged as a response to the harmful impacts of a stone quarry located on the mountain overlooking the village. Residents protested the pollution of their sole water source, Ain Dhokkara, which they rely on for drinking and agriculture, as well as the broader environmental degradation caused by the quarry's operations. With no access to the public water system, the villagers demanded the quarry's permanent closure, citing threats to their health, homes, and the structural integrity of the mountain itself.[29]

Unlike other communities suffering from water scarcity in Tunisia who are demanding a connection to the SONEDE network, the residents of El-Houwaydia were not asking for new infrastructure but for the protection of their natural water source, highlighting how local understandings of water justice are shaped by specific needs and relationships to water.

The sit-in continued for around two years, drawing national attention. The quarry's operations were suspended totally in 2021.

2.3. Key Dimensions of Justice

Water governance involves the complex task of managing resources in a way that meets both environmental and human needs while addressing historical and ongoing inequities. Justice frameworks help guide these efforts, promoting fair and sustainable access to water for all. Four main dimensions of justice – distributive, procedural, recognition and respect, and capabilities justice – provide a comprehensive approach to understanding and addressing the ethical and social dimensions of water resource management. Each of these dimensions emphasizes a different aspect of fairness: the distribution of water resources and participatory rights, the recognition of marginalized voices, and the enhancement of capabilities that allow communities and ecosystems to thrive.[30] Together, these justice principles offer a robust foundation for promoting equitable and resilient water governance.[31]

23 Farhana Sultana, "Water Justice: Why It Matters and How to Achieve It", *Water International* 43, no. 4 (2018) pp. 483–493, https://doi.org/10.1080/02508060.2018.1458272

24 General Assembly, "64/292. The Human Right to Water and Sanitation", United Nations (A/RES/64/292), 2 August 2010, https://tinyurl.com/ada8m7vx

25 PBS Frontline World, "Timeline: Cochabamba Water Revolt", https://tinyurl.com/m2xu7b33

26 Layla Mehta et al., "Global Environmental Justice and the Right to Water: The Case of Peri-Urban Cochabamba and Delhi", *Geoforum* 54 (2014) pp. 156–166, https://doi.org/10.1016/j.geoforum.2013.05.014

27 فريق التحرير، «مرصد المياه: 1,893 تبليغًا عن انتهاكات الحق في الماء في تونس سنة 2025»، التراتونس، 25 يناير 2024، https://tinyurl.com/4cxrcp3k

28 التحرير، «فيديو | في يومه الـ 5 : اعتصام الهوايدية يحقّق مكاسب ويستمرّ...»، إنحياز، 27 ديسمبر 2019 https://tinyurl.com/57uvj5b9 [التحرير، «فيديو | في يومه الـ 5»]

29 التحرير، «فيديو | في يومه الـ 5».

30 The People's Water Forum, Water Justice Manifesto, 28 February 2023, https://tinyurl.com/ytnxde4r

31 Elisabeth A. Shrimpton, Dexter Hunt and Chris D. F. Rogers, "Justice in (English) Water Infrastructure: A Systematic Review", *Sustainability* 13, no. 6 (2021), 3363, https://doi.org/10.3390/su13063363

2.3.1. Distributive Justice

Based on Rawls' idea of "justice as fairness", this concept addresses how benefits and burdens are allocated.[32] Distributive justice accepts inequality but requires that any inequality benefits the most disadvantaged. An example is the "polluter pays" principle, where polluters bear responsibility for their impact.

- South Africa's National Water Act: Enacted in 1998, this law addresses historical water inequities by ensuring the distribution of water benefits disadvantaged and rural communities. By designating water as a state-managed resource, the act prioritizes access for those previously marginalized, balancing economic and social needs.[33]
- Polluter Pays Principle in the Netherlands: The Netherlands implements the "polluter pays" principle, imposing charges on industries responsible for water pollution. This policy holds polluters financially accountable, reducing contamination risks and lessening the downstream impact on communities dependent on these water sources for drinking and agriculture.[34]

2.3.2. Procedural Justice

Procedural justice emphasizes fairness in decision-making, questioning who has access to information, who participates, and how conflicts are resolved. Agreements like the Aarhus Convention[35] and the EU Water Framework Directive[36] mandate public participation, access to information, and justice, especially for environmental issues. A just governance structure ensures diverse voices are heard, balancing a multiplicity of rules and actors involved in water infrastructure.

- Public Participation under the EU Water Framework Directive in Spain: In line with the EU Water Framework Directive, Spain involves local residents and industries in water management planning through public consultations, particularly in drought-prone Andalusia. This inclusive approach allows communities directly impacted by water scarcity to influence decision-making.[37]
- Aarhus Convention in Norway: As a signatory of the Aarhus Convention, Norway upholds public access to environmental information and decision-making. For example, during the planning stages of hydroelectric projects, the public, including environmental groups, can access impact assessments and raise objections, ensuring transparency and protecting local water ecosystems.[38]

2.3.3. Recognition and Respect

This dimension of justice ensures that all stakeholders have a voice and are respected in decision-making processes, as highlighted by Arnstein's ladder of citizen participation.[39] True recognition prevents «maldistribution» of resources by acknowledging the rights and needs of all groups.

- Whanganui River Legal Personhood in New Zealand: Recognizing the Whanganui River as a legal entity respects the Māori community's cultural and spiritual relationship with the river. This acknowledgment includes Māori perspectives in decisions affecting the river, ensuring indigenous values are protected and integrated into water governance.[40]
- Inclusive Planning in India's River Interlinking Projects: In India, river interlinking projects

32 German Reference Centre for Ethics in the Life Sciences (DRZE), "John Rawls: Justice as Fairness", https://tinyurl.com/53zceuvs

33 Sue-Marie Viljoen, "The South African Redistribution Imperative: Incongruities in Theory and Practice", *Journal of African Law* 65, no.3 (2021) pp. 403–429, https://doi.org/10.1017/S0021855321000188

34 Pieter Hamelink, "Environmental Policy and Fiscal Instruments in the Netherlands", *Studies in Environmental Science* 72 (1998), pp. 969–980, https://doi.org/10.1016/S0166-1116(98)80058-7

35 UN Economic Convention for Europe (UNECE), "Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters" (Aarhus Convention), 25 June 1998, https://tinyurl.com/y4x78hmh

36 European Commission, "Water Framework Directive", https://tinyurl.com/2sfaxn35

37 European Commission, *Public Participation in Relation to the Water Framework Directive: Guidance Document No 8*, Publications Office, 2003, https://tinyurl.com/2y2xtkmj

38 Parmita Saha and Johannes Idsø, "New Hydropower Development in Norway: Municipalities' Attitude, Involvement and Perceived Barriers", Renewable and Sustainable Energy Reviews 61 (2016) pp. 235–244, https://doi.org/10.1016/j.rser.2016.03.050

39 Gwendolyn Blue, Marit Rosol and Victoria Fast, "Justice as Parity of Participation: Enhancing Arnstein's Ladder through Fraser's Justice Framework", *Journal of the American Planning Association* 85, no. 3 (2019) pp. 363–376, https://doi.org/10.1080/01944363.2019.1619476

40 National Library of New Zealand, "Change-Maker — The Whanganui River", https://tinyurl.com/mr3p4yc6

were initially met with resistance from tribal communities who rely on these rivers for livelihoods. Advocacy led to project adjustments that reduced the impact on these communities, reflecting a more inclusive and respectful planning process.[41]

2.3.4. Capabilities Justice

Drawn from Sen and Nussbaum, capabilities justice emphasizes positive, quality-of-life goals.[42] Beyond merely distributing resources, it seeks to provide people with the means to thrive, ensuring well-being and setting minimum standards necessary for living things, including ecosystems, to flourish.

- Clean Water Act in the United States: The Clean Water Act includes provisions to protect wetlands, which play a key role in water filtration and flood control.[43] By safeguarding these ecosystems, the Act contributes to both ecological health and community resilience, ensuring access to clean water and protection from natural disasters.

3. CSO Role in Water Governance

3.1. CSOs through the Government's Perspective

The 2021 National Report provides insights into CSOs' contributions to water sector governance in Tunisia, revealing both their active involvement and the challenges they face in influencing actual policy.[44] CSOs in Tunisia, particularly those advocating for water rights, have made concerted efforts to participate in the legislative reform process for the new Water Code, engaging in parliamentary study days, regional consultations, and public awareness campaigns. However, the limited implementation of their recommendations suggests that these participatory efforts are often more symbolic than impactful.

CSOs – such as the Tunisian Water Observatory (OTE),[45] Solidar Tunisia,[46] and Nakhla[47] – have been at the forefront of advocacy, organizing petitions, and public events to press for amendments that secure citizens' rights to water. In 2021, 91 CSOs signed a petition requesting revisions to the draft Water Code, arguing for stronger protections and environmental safeguards.[48] They also collaborated on workshops, such as one organized with the Tunisian Observatory of the Economy, aimed at refining proposed adjustments to the code. These CSOs conducted a press conference at the Tunisian National Journalists' Union (SNJT),[49] participated in media appearances, and submitted an action plan to the President, Prime Minister, and Minister of Agriculture, advocating for a robust water rights framework.

Moreover, the report documents examples of cross-organization collaboration under initiatives like "Dynamique Eau" and "Collectif Eau", which aim to enhance CSO influence and facilitate coordinated advocacy. For instance, under the project "Citizen and Fair Governance of Natural Resources", CSOs like Solidar Tunisia and Friguia worked alongside local government services in Douz and Jendouba to develop specific projects that address local water, oasis, and renewable energy concerns. These project proposals were intended to be integrated into the broader 2021-2025 economic and social development plans for the governorates of Kebili and Jendouba that address the specific environmental needs for these regions.[50]

Despite these active contributions, the Report implies that the Ministry of Agriculture and Water Resources often treats CSO consultations as a procedural formality.[51] This pattern is evident in the lack of substantive follow-up on CSO

41 Mehta, D., & Mehta, N. K. (2013). Interlinking of rivers in India: Issues and challenges. Geo-Eco-Marina, 19, 137–144. https://journal.geoecomar.ro/geo-eco-marina/article/download/12_2013/56

42 Martha C. Nussbaum, "Capabilities as Fundamental Entitlements: Sen and Social Justice", *Feminist Economics* 9, no. 2–3 (2003) pp. 33–59, https://philpapers.org/archive/nuscaf.pdf

43 Bureau of Ocean Energy Management (BOEM), "Clean Water Act (CWA)", U.S. Department of Interior, https://tinyurl.com/5f63rbav

44 Office of Planning and Hydraulic Balancing, *National Report*.

45 Observatoire Tunisien de l'Eau, "Home", https://www.watchwater.tn/fr

46 Solidar Tunisie, "Home", https://www.solidar-tunisie.org/fr

47 Association Nakhla, Facebook, https://www.facebook.com/nakhla.tn/?locale=fr_FR

48 Mohmed Marrouchi, "Charte de la Tunisie pour le Droit à l'Eau", Observatoire Tunisien de l'Eau. 7 November 2019, https://tinyurl.com/yf53r2by

49 Syndicat National des Journalistes Tunisiens (SNJT). "Home", https://snjt.org/

50 Office of Planning and Hydraulic Balancing, *National Report*.

51 Office of Planning and Hydraulic Balancing, *National Report*.

recommendations and the minimal policy changes that reflect the input gathered during these consultations. This can be understood through the lens of Arnstein's ladder of participation, where CSO involvement is relegated to the lower tokenistic rungs, offering only an illusion of participation without genuine influence or decision-making power.

The reluctance to incorporate CSO insights may stem from entrenched bureaucratic priorities or a perception of CSOs as secondary stakeholders rather than essential partners in policy development. Consequently, these consultations, while symbolically fulfilling participatory governance requirements, fail to offer the intended transparency, accountability, or substantive influence that CSOs aim to achieve.

This situation underscores a broader issue within Tunisia's participatory governance framework, where CSO involvement is nominally encouraged but pragmatically marginalized. The selective integration of CSO recommendations limits the potential for collaborative policymaking, especially in areas requiring extensive local knowledge and citizen engagement, such as water resource management. For a more effective participatory model, it would be necessary for government institutions to view CSOs as partners in policy formulation and to genuinely consider their input in final legislative decisions.[52] This would not only strengthen water governance in Tunisia but would also improve public trust and accountability in the management of critical resources like water, thereby addressing an indispensable component of procedural justice.

3.2. Protests as an Indicator of Injustice and Exclusion

> Peaceful protest is a dynamic and public means of exercising our human rights. Throughout history, protests have enabled individuals and groups to express their dissent, opinions, and ideas, to expose injustices and abuses, and to hold authorities accountable.[53]

We can explore how the prevalence of protests signifies both the existence of injustice and a lack of genuine participatory opportunities for CSOs and local communities in Tunisia's water governance. The right to peaceful protest is a fundamental way for citizens to express dissent and advocate for their rights. Historically, protests have served as critical forums for people to voice dissatisfaction, particularly when institutional channels fail to address pressing needs or when public participation mechanisms are merely symbolic.[54] When communities are afforded real opportunities to influence policy, protest levels tend to decrease, as people feel heard and see their needs reflected in decision-making. However, in Tunisia's water governance, limited government responsiveness to CSO input and the perceived tokenism in consultations actually drives frustration and escalates public demonstrations.

This dynamic reflects a failure to achieve recognition justice, which requires that all stakeholders be genuinely heard and respected in decision-making processes – a principle central to Arnstein's ladder of citizen participation. The persistence of protests across Tunisia illustrates the consequences of symbolic rather than substantive inclusion: a deep disconnect between policymakers and communities, unmet needs, and a growing sense of exclusion from water governance. If civil society and local actors were meaningfully engaged, such mobilizations might shift from being a tool of last resort to a collaborative force in shaping equitable policies.

In Tunisia, protests related to water scarcity and resource mismanagement are not merely reactions to environmental issues but are also responses to

52 Building River Dialogue and Governance (BRIDGE), *Strengthening CSO Engagement in Water Governance: Government Perceptions and Strategies in the Ganges-Brahmaputra-Meghna Basin*, International Union for Conservation of Nature (IUCN), 2018, https://tinyurl.com/b37tsv8e

53 Amnesty International, *Protect the Protest! Why We Must Save Our Right to Protest*, 19 July 2022, https://www.amnesty.org/en/documents/act30/5856/2022/en/

54 Thomas Carothers and Richard Youngs, *The Complexities of Global Protests*, Carnegie Endowment for International Peace, 8 October 2015, https://tinyurl.com/3kcfjcr3

systemic exclusion and the lack of accountability from governing bodies. CSOs, representing affected communities, often find that their participation in policymaking is symbolic rather than substantial, which leads to further public mobilization.[55] This dynamic highlights how protests can emerge as a powerful sign of marginalized voices striving for justice and genuine participation when formal mechanisms fail to provide these opportunities.

3.3. Who Benefits from Water Policies?

The current water policies and practices in Tunisia reveal stark disparities in both access and benefit distribution, creating clear winners and losers. One of the most pronounced divides is between rural and urban areas. Rural communities face significant water access challenges, as confirmed by Pedro Arrojo Agudo, the UN Special Rapporteur on human rights to safe drinking water and sanitation.[56] Urban areas generally have better infrastructure and more reliable water access, whereas rural communities, particularly small farmers, struggle with inconsistent supply and are often deprioritized. This urban-rural gap exacerbates inequality, leaving many rural residents without a dependable source of water for their daily and agricultural needs.

Small farmers are also at a disadvantage compared to large investors, who receive preferential access to water resources for high-revenue crops or for export purposes. These disparities extend to the competition between agricultural and industrial sectors, particularly in regions like Gafsa, where the phosphate mining industry consumes vast amounts of water, often at the expense of local agricultural needs.[57] Additionally, the bottled water sector[58] and other commercial industries secure water allocations that might otherwise serve local populations.

Furthermore, the legal framework and recent initiatives in water governance show favoritism toward formalized entities, such as private companies, limited liability companies (SARL), and cooperatives. Community-based enterprises, those recently endorsed by the President's initiative,[59] enjoy preferential treatment and access to resources, setting them apart from traditional smallholder setups and informal agricultural operations. This favoritism in legal and resource allocation frameworks deepens the divide, leaving informal or traditionally structured enterprises at a significant disadvantage, with limited means to compete or secure their share of water resources.

These policies perpetuate a cycle in which wealthier investors, urban residents, and legally favored entities benefit most. Small farmers, rural communities, and informal enterprises, on the other hand, are marginalized, lacking reliable access to water and facing increased barriers to sustainability and development. This reflects a clear failure of distributive justice, as water resources are not allocated according to need or equity, and of recognition justice, as the specific realities and rights of marginalized groups are overlooked in policy decisions.

Methodology

1. Gaps in the Literature

This research adopts a multi-dimensional justice framework (distributive, procedural, recognition, and capabilities justice) to analyze water governance inequities in Tunisia, bridging gaps in existing literature through localized and stakeholder-centric approaches. While prior studies often generalize national or global trends, this study focuses on regional disparities, particularly the urban-rural divide, where rural areas face systemic neglect, compared to urban centers, relying on under-resourced GDAs. It also critiques the limited policy impact of CSOs, whose advocacy is frequently sidelined due to technocratic governance and political marginalization. By integrating these gaps, the methodology combines qualitative tools to capture lived experiences, power dynamics, and policy barriers.

While existing studies on water governance often focus narrowly on distributive justice, a comprehensive analysis must consider other dimensions, such as recognition, procedural, and

55 Benedict Vigers and Ethan Sager, "Tunisia Water Crisis Fuels Frustration", Gallup, 5 April 2023, https://tinyurl.com/2jn33uzd

56 OHCHR, *A/HRC/51/29/Add.1: Visit to Tunisia*.

57 Diane Robert, "Reportage à Redeyef : Derrière les Coupures d'Eau, les Horizons Bouchés du Phosphate", *Nawaat*, 31 Mars 2017, https://tinyurl.com/34nyhvu8

58 فريق التحرير، «محاكمة 4 فلاحين احتجوا ضد رخصة تنقيب مياه في سليانة»، Rassd Tunisia، 12 نوفمبر 2024، https://tinyurl.com/y99t8x67

59 جيهان نصري وماهر الذهبي، «الشركات الأهلية: كيف أصبح الحلم الرئاسي مهمة الدولة»، 10 أكتوبر 2024، https://tinyurl.com/5dn3mv9t

capabilities justice. Recognition justice involves acknowledging the unique needs and contributions of marginalized groups, while procedural justice emphasizes equitable participation in decision-making. Capabilities justice evaluates whether communities have the resources and opportunities to use water equitably. These dimensions will guide the analysis of Tunisia's water governance framework, with comparisons to international examples to identify transferable lessons and benchmarks. This multi-dimensional approach addresses the dominance of technocratic and resource-centric governance, emphasizing equity and systemic barriers.

2. Research Tools

2.1. Semi-Structured Interviews

Semi-structured interviews were chosen for their balance between structure and flexibility, allowing for an in-depth exploration of participants' perspectives while accommodating diverse viewpoints. This method is particularly suited for capturing nuanced insights into perceptions of justice, stakeholder dynamics, and participation in water governance.

Target groups for interviews included CSOs, policymakers, community leaders, and vulnerable groups. These stakeholders provided diverse perspectives, from advocacy challenges to lived inequitable experiences. The interviews explored perceptions of justice, barriers to participation, water disparity impacts, and the effectiveness of CSOs in influencing policy and public discourse. Thematic coding and stakeholder analysis was employed to analyze the data, revealing justice-related insights in water governance. Thematic coding identifies recurring patterns in stakeholder narratives, while stakeholder analysis maps power dynamics and imbalances that influence decision-making processes. This methodological approach ensures that findings are actionable and grounded in the justice principles.

2.2. Consultation Meeting

Consultation meetings were undertaken to validate and refine interview findings through group discussion with diverse stakeholders, including CSOs, community representatives, and policymakers. These meetings served as platforms for cross-checking data accuracy, fostering dialogue on justice-related challenges, and building consensus around actionable recommendations. Organized across different regions, the meetings employed participatory methods to encourage open dialogue and inclusivity. The focus was on crafting recommendations that address power imbalances and promote equitable decision-making. The outcomes of these consultations will enhance the generalizability of findings by ensuring they resonate with broader governance issues in Tunisia.

2.3. Case Study

Case studies provided detailed insights into specific governance and justice issues. The selection criteria included active CSO involvement, representativeness of broader justice issues, and availability of data. Proposed case studies included rural regions such as Kairouan, urban centers like Tunis, and industrial zones, such as the Gafsa mining basin. These areas illustrate diverse challenges, from water shortages in agriculture to urban disparities in pricing and service quality and industrial conflicts over resource allocation. Distributive, procedural, and capabilities justice will frame the analysis.

To ensure the generalizability of case study findings, a comparative analysis will identify common themes and lessons across different contexts. This synthesis will inform national-level recommendations and contribute to a cohesive framework for improving water governance. Moreover, the research explores how findings can address power imbalances among stakeholders and promote equitable decision-making processes.

2.4. Thematic Coding Methodology

The thematic coding methodology was used to systematically analyze qualitative data by identifying recurring patterns, key themes, and conceptual relationships within the collected information. In this research, thematic coding was applied to categorize stakeholders' perceptions, definitions, and experiences related to water justice. The analysis is structured around the four key dimensions of justice: distributive, procedural, recognition, and capabilities justice. By assigning relevant lexical fields to each dimension, we can track how different stakeholders frame justice issues, which aspects they emphasize, and where their perspectives diverge or overlap. The coding matrix operationalizes abstract justice principles into tangible policy critiques, such as the misalignment

between donor priorities and community needs.

The coding process involved several steps:

- Data Collection.
- Keyword Identification: Identifying terms, phrases, and concepts frequently used by participants that correspond to specific justice dimensions.
- Categorization: Assigning these terms to thematic clusters within the four justice dimensions.
- Analysis and Interpretation: Examining the frequency, context, and relationships between coded terms to uncover insights about stakeholders' perspectives on water justice.

Table 2 illustrates a lexical field organization associated with each justice dimension.

Table 2: Thematic Coding Matrix

Justice Dimension	Lexical Field
Distributive Justice (The "Where" and "How Much")	Allocation, distribution, equity, resources, access, scarcity, availability, fair share, water rights, infrastructure, supply and demand, drought, overuse, privilege, marginalization, redistribution, efficiency, extraction.
Procedural Justice (The "Who and How of Governance")	Participation, transparency, decision-making, accountability, consultation, policy, regulation, governance, representation, power dynamics, inclusion, negotiation, rule of law, bureaucracy, public hearings, stakeholders, advocacy, institutional barriers.
Recognition Justice (The "Minimum Essential")	Identity, acknowledgment, marginalized groups, indigenous rights, social exclusion, cultural significance, traditional knowledge, discrimination, community needs, local knowledge, gender disparities, rural vs. urban, underrepresentation, social justice, minorities.
Capabilities Justice (The "How" - Human Well-being)	Livelihoods, well-being, sustainability, opportunity, empowerment, development, social mobility, economic stability, food security, health, education, basic needs, quality of life, adaptation, resilience, self-sufficiency, vulnerability.

This structured approach will allow for a nuanced analysis of how different stakeholders perceive and experience justice in the context of water governance. By systematically coding qualitative data into these thematic categories, the research will uncover key trends, regional disparities, and power dynamics, ultimately guiding actionable recommendations for equitable water governance.

Results and Discussions

1. Water Justice: Multiple Definitions across Stakeholder Groups

The concept of water justice appears to vary significantly among stakeholders, reflecting their roles, needs, and levels of understanding. Notably, these differences highlight the complexity of defining justice in a context marked by disparities in access and governance.

For NGOs, water justice is largely framed through the lens of equal access to drinking water for all citizens. However, their perspective goes beyond mere distribution; they emphasize the recognition and respect dimension of justice — advocating for the acknowledgment of marginalized communities and the historical inequalities affecting their access to water resources.

Conversely, farmers, particularly those who already have access to drinking water, prioritize the capability dimension of justice. They assert their right to use water for agricultural purposes, similar to agribusinesses that benefit from extensive irrigation systems. This reflects a perception of justice rooted in equitable access to productive resources, highlighting the disparity between small-scale farmers and large commercial enterprises.

From a theoretical standpoint, water justice is generally described through the four interrelated dimensions, however, the lived stakeholder experiences reveal a fragmented understanding of these dimensions, often emphasizing one over others, based on their immediate concerns.

Furthermore, the definition of water justice also varies depending on the geographical and bioclimatic context. In Jendouba, a humid region in Tunisia with significant dam infrastructure, interviewees expressed feelings of injustice because, despite the visible abundance of water, there is a perceived lack of procedural justice. They feel excluded from decision-making processes and believe that water from their region is prioritized for other areas, rendering them "second-degree citizens".

> *We are surrounded by water, between the Barbra, Bouhertma, and Beni Mtir dams, yet we watch it flow through pipelines to places like Nabeul and Tunis. Are we not real citizens? If not, then tell us, so we can go live in a country that respects us.*[60]

In Kairouan, characterized by a semi-arid lower bioclimatic stage, injustice is perceived as multiple overlapping issues. While water resources are allocated to agribusinesses, small-scale farmers struggle to secure sufficient water for their crops, often being denied permits to dig wells under the pretext that their land falls within a "red zone". This restriction is perceived as a selective application of regulations that further marginalizes those with fewer resources.

> *As a young female farmer in Kairouan, I demand the approval from the CRDA to dig a well. All around my land, investors have wells, water, and large vegetable productions, yet they deny me the same, claiming my area is a red zone. They distribute water based on other criteria than fairness or rights.*[61]

Adding to the sense of injustice is the presence of over six mineral water companies operating in the region, a stark contradiction for residents who experience chronic water cuts and hence severe thirst in their own homes. The state's decision to allocate high-quality water resources for commercial bottling, while local communities remain deprived of basic water access, intensifies public frustration and highlights the perceived prioritization of profit over people.

Meanwhile, in Gafsa, an arid region, the allocation of vast water quantities to the Gafsa Phosphate Company (CPG) represents a stark injustice, despite urban residents experiencing frequent water cuts. This scenario embodies a profound contradiction, the exploitation of a vital resource for industrial gain at the expense of meeting essential domestic needs.

Ultimately, these differences illustrate how decision-maker priorities establish, or overlook, the conceptualization that shapes water justice, versus what stakeholders themselves perceive as just

60 Anonymous activist interviewed in Jendouba, ElGonna. January 2025

61 Anonymous consultation meeting with farmer, Kairouan. February 2025

and necessary. This divergence in understanding sets the stage for further exploration of how water priorities are determined and who has the power to influence them.

The diversity in stakeholders' interpretations of water justice highlights the inherent complexity of the concept. It suggests that achieving a shared, universally accepted definition may be impractical given the distinct socio-economic realities, roles, and experiences of each group. Rather than aiming for a singular understanding, a more productive approach might involve embracing this plurality and considering justice as a dynamic, context-sensitive process. This complexity also underscores the need for decision-makers to engage deeply with local communities, understanding their lived realities rather than applying top-down, one-size-fits-all policies. The disparities between theoretical justice frameworks and on-the-ground perceptions point to a critical gap, one that, if unaddressed, risks perpetuating inequalities rather than resolving them. Ultimately, water justice should not be confined to academic or policy-driven definitions; it must resonate with the communities directly affected by water distribution and access policies.

2. Priorities in Water Use to Achieve Water Justice

Water justice is not just about equitable access but also about prioritizing water use to meet essential needs while respecting social equity. This section examines two aspects: (a) the prioritization of water use and (b) the practical application of the four justice dimensions in Tunisia.

2.1. Prioritization of Water Use

Drinking water emerges as the highest priority, grounded in the fundamental right to life and dignity. Access to adequate, good quality, affordable, and continuously available water must be universally guaranteed. Following this, water for food production, especially for small-scale farmers who primarily supply local markets, becomes essential. These farmers play a crucial role in ensuring local food sovereignty but remain vulnerable to water scarcity.

> *The government has no legal, ethical, or logical right to give water to bottled water industries while depriving us. In the same region, they allow rich agribusinesses to dig three or four wells, and then tell us we're in a red zone and can't access water…. This is exactly why crop prices are rising: because we, the ones who supply local markets, no longer have the water to produce [them].*[62]

Larger agricultural enterprises and agribusinesses, despite their economic importance, should not access water at the expense of small-scale farmers and communities. Similarly, industrial use, particularly for water-intensive and polluting industries like the CPG, should be deprioritized to safeguard essential needs.

Implementing these priorities through effective public policies can begin to lay the foundation for water justice in Tunisia.

2.2. The Dimensions of Water Justice: Compact or Layered?

The coding methodology applied to the interview data revealed that the lexical fields used by interviewees could be classified into three clusters: (a) distributional concerns, where words related to "access", "fairness", and "scarcity" were predominant; (b) procedural and recognitional justice, characterized by references to "participation", "exclusion", and "marginalization"; and (c) capability-based justice, where interviewees highlighted "empowerment", "autonomy", and "capacity-building". This clustering suggests that while water justice is multi-dimensional, it is experienced and articulated through layered priorities that reflect urgent material concerns before procedural and structural aspects.

While the four dimensions of water justice are theoretically inseparable, they appear layered in practice in Tunisia:

- Distributional Justice: The most critical dimension. When fair allocation is absent, participation loses significance. The lack of equitable distribution often leads to exclusion from decision-making and recognition.
- Procedural and Recognitional Justice: Although participation and recognition are vital, stakeholders often perceive them as secondary. Many feel that genuine involvement in decision-making is irrelevant if distributive justice is absent.

62 Anonymous activist during consultation meeting in Kairouan. March 2025

- Capability-Based Justice: Enhancing the capacity of communities to fully utilize water resources is a long-term goal, limited by socio-economic and political barriers.

  I don't want to participate. I just want fair access to water like everyone else. The government knows very well we don't have water. It's their job to bring it. If they ask me to say more, what can I say beyond "we don't have water?"[63]

The examination of priorities in water use reveals that water justice is not solely about equity but also about challenging entrenched power dynamics in resource distribution. The disparities in water allocation between agribusinesses and small-scale farmers, as well as between industrial users and local communities, underscore a broader pattern of socio-economic injustice. The dominance of distributive justice as a primary concern reflects the pressing need for immediate, tangible improvements in access. However, overlooking procedural, recognitional, and capability-based justice risks reinforcing these imbalances in the long term. As we transition to the next section, it becomes evident that the persistence of water injustices often intersects with broader forms of discrimination, highlighting the complexity of achieving holistic water justice in Tunisia.

3. Water Injustices and Double Discrimination

Water injustices in Tunisia are not solely a matter of misallocation or policy failures; they are deeply intertwined with broader socio-economic inequalities that disproportionately affect marginalized groups. These groups often face a double or even triple burden of marginalization: they are already excluded from essential socio-economic rights and services, and their vulnerability to water injustice adds an additional layer of precarity. Based on the interviews conducted, it appears that water injustice often emerges as a second- or third-level vulnerability, imposed on individuals who are already struggling with other forms of exclusion.

You'll never see wealthy people or those with political power struggling with water cuts like we do. It's always us – the poor, the rural citizens. Even here, if you have money, you can drill your own private well and live comfortably. But if you don't, you're told to wait, to depend on the state, and to suffer in silence.[64]

This cumulative effect creates a cycle where marginalized groups are trapped in persistent disadvantage, unable to escape the compounded impacts of social, economic, and environmental injustices.

Intersecting vulnerabilities:

- Rural Communities: Rural areas in Tunisia, especially in arid and semi-arid regions, experience chronic underdevelopment and a lack of basic public services. The absence of reliable water infrastructure is not only a sign of state neglect but a mechanism that perpetuates socio-economic marginalization. Many rural residents must rely on unsafe or irregular water sources, further compounding health risks.
- Socio-Economically Disadvantaged Populations: Low-income households struggle to afford water, especially when prices increase due to privatization or infrastructural challenges. Their inability to pay often leads to water cuts, depriving them of a fundamental right and reinforcing cycles of poverty.
- Women and Gendered Inequities: In many rural communities, women are primarily responsible for securing water for household use, which often requires traveling long distances. This responsibility not only limits their socio-economic participation but also exposes them to health risks and safety threats. Despite their critical role in water management, women are typically excluded from decision-making processes.
- Migrants and Refugees: Migrants, particularly those without legal status, often lack formal access to public services, including water. Their marginalized status makes them vulnerable to exploitation and further exclusion. In informal settlements, where basic services are scarce, they are forced to rely on inadequate water sources, jeopardizing their health and dignity.

  Maybe people don't often talk about refugees and migrants, but they suffer too, sometimes even more. In places like Sfax, ElAmraa, there's simply

63 Anonymous farmer and rural resident, Kairouan. February 2025

64 Anonymous farmer and rural resident, Kairouan. February 2025

no water for them. And I think this is even more severe because a large part of Tunisian citizens themselves don't fully recognize this as a right.[65]

These intersecting layers of injustice demonstrate that addressing water justice in Tunisia requires a holistic approach that goes beyond equitable water allocation. The results show that decision-makers, whether intentionally or not, often impose the burden of injustice on the most vulnerable groups precisely because of their pre-existing marginalization. Water policies must confront the broader structural inequalities that render these communities invisible in decision-making processes. Ensuring inclusive participation and recognizing the unique needs of marginalized groups are essential for any comprehensive solution.

4. The Role of International Donors and Multilateral External Loans

International donors and multilateral financial institutions, such as the International Bank for Reconstruction and Development (IBRD), African Development Bank (ADB), International Monetary Fund (IMF), the EU, and European Investment Bank (EIB), play a significant role in shaping Tunisia's water policies and infrastructure. However, their interventions often prioritize projects with economic potential, focusing on sectors that can attract private investments, open doors for multinational corporations, or necessitate technology transfers. Rather than directly guaranteeing access to water for citizens, whether as individuals or as collective groups, these donors tend to fund large-scale projects perceived as economically viable.[66]

A clear example of this approach is the substantial investments in seawater desalination plants. Despite the significant loans allocated to these projects, two critical realities reveal the inadequacy of this solution for Tunisia. Firstly, the country's water distribution network suffers from losses reaching up to 30% due to aging infrastructure and illegal tapping, a quantity far greater than what the desalination plants can produce. Addressing these infrastructural deficits would have a more immediate impact on water availability. Secondly, Tunisia faces an energy deficit, and desalination is an energy-intensive process, raising questions about the sustainability and efficiency of these investments. Furthermore, Tunisia is under increasing pressure, particularly from the EU and German development agency GIZ, to sign green hydrogen production agreements, a process that requires substantial amounts of water – especially non-conventional sources, such as desalinated water – and renewable energy. While often presented as separate projects, the push for green hydrogen is directly driving investment in desalination infrastructure, frequently without sufficient consideration to local water needs or concerns for justice.

These resources, which could be used to meet the essential needs of Tunisian citizens, are instead being directed toward industrial and export-oriented projects. The emphasis on non-conventional water sources,[67] such as desalinated seawater and treated wastewater, further underscores that these donors are not genuinely prioritizing water justice or the fundamental right of access to water. Rather, their focus remains on opening new markets, expanding investment opportunities, and leveraging Tunisia's natural resources for global energy transitions, regardless of the country's pressing water and energy shortages.

The international donor strategies appear to overlook the immediate needs of accessible, safe, and affordable drinking water for the population. By prioritizing sectors that align with economic liberalization or potential privatization, these institutions may inadvertently deepen water injustice rather than mitigate it. The focus on economic gain, instead of prioritizing human needs, risks further marginalizing vulnerable communities who are already excluded from fair access to resources.

65 Anonymous NGO representative, Kairouan. April 2025

66 Houcine Rhili, "The World Bank's Water and Sanitation Policies in Tunisia: Privatisation at the Expense of Fundamental Rights", Transnational Institute (TNI), 28 September 2023, https://tinyurl.com/3ufd43nz

67 World Bank, "Tunisia: Recycled Wastewater Cleans Up the Sea, Provides Water for Farming", 30 August 2022, https://tinyurl.com/4rjh6axt

5. Symbolic Inclusion or Shared Governance? The Role of Communities and NGOs in Water Policy

The research findings suggest a widespread perception among local communities and CSOs that their involvement in water governance is often symbolic rather than substantive. While consultation mechanisms do exist, they are typically framed as one-directional or procedural requirements rather than genuine opportunities for co-decision-making. The reluctance to incorporate CSO insights may stem from entrenched bureaucratic priorities or a perception of CSOs as secondary stakeholders rather than essential partners in policy development. Consequently, these consultations, while symbolically fulfilling participatory governance requirements, fail to offer the intended transparency, accountability, or substantive influence that CSOs aim to achieve.

Decision-makers often refrain from meaningful collaboration with CSOs because they perceive them as lacking the technical expertise to understand the complex challenges involved in water governance. In this framing, CSOs are seen less as collaborators and more as obstacles: actors who merely slow down or block projects without offering technically viable alternatives. This technocratic bias casts CSOs as "non-knowers", undermining their legitimacy in discussions typically dominated by engineers, economists, or logistical expertise.

Political discourse amplifies this distrust further following widespread waves of takhween (betrayal) launched by the Presidency of the Republic. This narrative casts CSOs as aligned with foreign interests. It suggests that they merely implement international donor agendas, even though those same donors are official partners of the state. This dual standard exposes a deep-seated tension in how external influence is interpreted, depending on who is seen to benefit from it.

This secondary status is reinforced by institutional hierarchies and sectoral biases. CSOs are often viewed as more concerned with environmental protection, pollution control, or rights-based discourses, which may be perceived as disconnected from economic imperatives, such as agricultural productivity or industrial development. Moreover, the research shows decision-makers tend to acknowledge CSOs only when they act as service providers or charitable actors, filling gaps left by the state and fully aligning with governmental directives. This conditional partnership reflects a broader unwillingness to engage with CSOs that adopt critical or advocacy-based roles, especially when these roles challenge state priorities. In this light, local farmers may see CSOs as "urban" actors or outsiders whose priorities do not always align with their livelihood concerns. Decision-makers may regard them as adversaries rather than allies.

These dynamics not only marginalize CSOs but also hinder the formation of inclusive, sustainable water policies. They create a fragmented governance space where technocratic rationalities dominate, and where CSO lived experiences and insights are undervalued or dismissed. This is especially problematic given that water governance is not merely a technical issue but a deeply political and social one: a field where diverse actors, regardless of technical background, can and should contribute meaningful perspectives. By ignoring this, the governance model reinforces participation as merely procedural rather than transformative: a checkbox exercise rather than a channel for genuine influence.

Recommendations

1. Civil Society Organizations

- CSOs must use Article 48 of the 2022 Constitution to challenge discriminatory policies, partnering with legal NGOs where relevant. Approaches must recognize that water justice is not universal but interpreted differently by NGOs, farmers, and local communities depending on their needs and positions.
- Scale up the El-Houwaydia protest model, linking water cuts to human rights, with media campaigns. Publish shadow reports to counter the narratives.
- Work with GDAs to map informal water sources and traditional practices, legitimizing them in policy debates.

2. Tunisian Government and Ministries

- Fast-track the revised Water Code (Draft Law 66/2019) with CSO input. Explicitly prioritize drinking water and small-scale farming over export industries (e.g., bottled water companies, etc.).
- Publicize real-time dam data and water permits online, exposing disparities. Enforce the "polluter pays" principle and tax industries like CPG to fund rural infrastructure.
- Empower regional water councils with budgets and enforcement power, including quotas for marginalized groups (e.g., women-led GDAs, etc.).
- Mandate direct CSO and community input in water policy decisions, with enforceable mechanisms to ensure their demands are implemented. This turns protests into enforceable participation rights and entails moving beyond performative consultations to real collaborative governance, where community feedback translates into tangible policy outcomes.

3. International Donors (World Bank, EU, AfDB, etc.)

- Redirect loans from costly desalination plants (energy-intensive and inequitable) to repairing urban/rural networks that lose 30% of the water. Pilot participatory budgeting for infrastructure projects.
- Tunisia must reject all green hydrogen projects until it achieves water security and an energy surplus. Current proposals prioritize foreign industrial interests over basic human needs that divert scarce water from thirsty communities while failing to address systemic leaks and rural deprivation.
- Fund CSO-led donor monitoring projects to ensure alignment with local needs, not corporate interests.

4. Affected Communities

- Formalize water-user associations to negotiate with authorities. Document and publicize violations.
- Advocate for state subsidies to revive traditional water-harvesting systems as climate-adaptive measures.

About the Arab Reform Initiative

The Arab Reform Initiative is an independent Arab think tank working with expert partners in the Middle East and North Africa and beyond to articulate a home-grown agenda for democratic change and social justice. It conducts research and policy analysis and provides a platform for inspirational voices based on the principles of diversity, impartiality, and gender equality.

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