



Regulating the Private Water Market in Taiz Governorate : An Entry Point for Administrative Reform

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Preface:

Taiz Governorate is suffering from a severe water crisis caused by an interplay of political, structural, geographical, environmental, and security factors. The ongoing war since 2015 has exacerbated the situation, leading to the destruction of water network infrastructure and the near-total collapse of the public water utility.

In the absence of public services, the private water market became the primary source for meeting residents' needs. Yet, it evolved in a disorganized and unregulated setting, driving water prices to levels far beyond the reach of most households, particularly those in low-income and overcrowded neighborhoods.

Recently, the water crisis in Taiz has become a pressing issue, with acute shortages in access to drinking water and long queues of residents waiting to obtain limited quantities.

This paper aims to shed light on the administrative dimension of the water crisis in Taiz, with a focus on regulating the private water market as a practical and realistic approach to alleviating the economic burden on residents and achieving a minimum level of water equity.

It also analyzes the root causes of this water crisis from an administrative perspective, highlighting the challenges facing both official and non-official entities in managing this vital resource, and examining the impact of poor governance on the sustainability of water services.

Furthermore, the paper proposes feasible administrative and regulatory mechanisms, considering the realities of local institutions and the potential for partnerships with relevant actors. The proposed recommendations aim to establish an integrated framework that ensures the provision of safe and clean water at affordable prices, strengthens the community's resilience and adaptability to current conditions, and works toward achieving sustainable water security for all segments of society in Taiz.



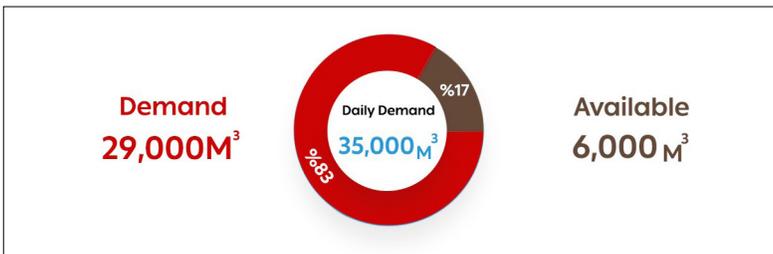
Background and Context

Taiz Governorate is one of the most populous in Yemen. The population of the Taiz city, controlling by IRG of Yemen, is estimated at over one million people, due to successive waves of displacement from conflict areas, particularly from districts controlled by the Houthis group. This sudden demographic surge has intensified pressure on the already fragile infrastructure, especially in the water sector.¹

Historically, Taiz city has faced a complex water crisis rooted in natural and geological factors. Most of its land consists of hard volcanic rock formations, mainly basalt and pyrolite, which are non-porous and thus have a low capacity to store groundwater. The city also lacks water-bearing limestone formations, leading to low well productivity and frequent depletion, especially during drought periods.

Climatically, Taiz is classified as a medium-rainfall area, with an average annual precipitation of about 648 mm. However, the absence of infrastructure for rainwater harvesting and storage has greatly limited the use of this resource. Estimates suggest that the theoretically available water volume is about 545 million cubic meters annually, yet the actual usable quantity does not exceed 40 million cubic meters.²

The city's daily water demand is estimated at around 35,000 cubic meters, while current supply stands at roughly 6,000 cubic meters, reflecting a significant gap between supply and demand.³



1- Dr. Jamal Al-Ramasi – Engineer Wathiq Al-Aghbari: Seminar on the Water Crisis in Taiz – Al-Madina Cultural Forum, July 25, 2025

2- Dr. Jamal Al-Ramasi – Engineer Wathiq Al-Aghbari: Same reference as above

3- Water and Sanitation Corporation, Taiz – Interview with Engineer Abdu Ali, Deputy Director General of the Corporation – July 22, 2025

Before the war in 2015, the Taiz Public Water Corporation covered about 58% of the city's residents, with the remainder relying on alternative sources. At its peak, the Corporation production reached around 5.7 million cubic meters per year. However, weak operational capacity and full dependence on the national electricity grid, were already prone to outages, reduced efficiency. Only 64% of the operational wells were actually in service at that time.⁴

Since the war broke out in March 2015, the Taiz water utility has been completely shut down. Its infrastructure, including wells, transmission lines, and pumps, suffered severe damage. Most of the main reservoirs ceased operation, the utility lost its production capacity, and the institutional system collapsed entirely. After several years of suspension, the utility resumed partial and limited services by operating some wells located within the city.

The water file in Taiz has also been used as a weapon of war. According to a [Human Rights Watch report](#), the Houthi group weaponized water by cutting supply lines and preventing pipeline maintenance, effectively halting water access from major reservoirs under its control, such as the Eastern Northeastern Water Fields.

In response, residents within the city turned to alternative sources, chief among them private water tankers owned by individuals in the unregulated private sector. These tankers transport water from shallow wells in the Al-Dhubab Water Field and some wells inside the city. Rainwater harvesting from rooftops has also been used despite its limited quantities and lack of safety standards.

In terms of institutional frameworks, the Taiz governorate's wells are classified into three categories: wells owned by the Taiz Public Water Corporation, wells under the Ministry of Endowments, and privately owned wells belonging to individuals which supervised by the Rural Water Authority and the General Authority for Water Resources⁵. Despite this institutional fragmentation, there is no unified mechanism to manage these resources or effectively monitor their operation.

4- Dr. Jamal Al-Ramasi – Engineer Wathiq Al-Aghbari: Same reference as above.

5- Water and Sanitation Corporation – Interview with the Deputy Director General.

Water Field	Well Names	Number of Wells	Production Capacity (m ³ /day)		Status
			Before the War	Current	
Northern Field	Hawjla - Wadi Jadeed - Al-Amara	17	7,500	0	Stopped
North-eastern Field	Al-Hayma - Habeer - Shaab Al-Rehan	22	5,750	0	Stopped
Western Field	Wadi Al-Dhubab - Hazran	9	4,280	0	Stopped
City Field	Emergency wells within Taiz city neighborhoods	28	2,200	2,200	Operational
Total		76	19,730	2,200	-

Table 1 – Number of Wells and Production Capacity in Taiz Before and During the War (up to 2023) ⁶

During the war, Miyah Al-Sabeel (charitable water), public water tanks filled by humanitarian organizations, the private sector, and individuals, and distributed free of charge to residents, became the main water source for most of the population. These temporary solutions were supported by several (I)NGOs, Arab funds and agencies, as well as private-sector actors and Yemeni expatriate traders.

By mid-2025, the water crisis in Taiz worsened significantly due to delayed rainfall, which lowered water levels in the Al-Dhubab wells, the main source of surface water pumping. To address this, several well owners began deepening their wells. However, these deepening operations were carried out almost simultaneously and on a large scale, leading to the shutdown of a substantial portion of water pumping to the city, as many wells were taken offline for maintenance and deepening. This resulted in reduced supply, increased demand, and a sharp rise in water tanker prices.

These measures failed to bring water prices down, and they have remained high as of the date of writing this paper

6- Matrix ([Problems and Solutions for the Water Sector in the City of Taiz](#)), prepared by the Planning Office in Taiz and other organizations, and published on the website of the Planning and International Cooperation Office – Taiz.



Humanitarian Interventions

To mitigate the severity of the crisis, a number of (I)NGOs, along with contributions from the Yemeni private sector and expatriates, implemented humanitarian interventions that partially alleviated the water shortage. These interventions primarily focused on urgent relief needs and the provision of some essential requirements, such as rehabilitating and drilling new wells, installing solar power systems for certain wells and water pumps, rehabilitating sections of the old network inside the city, and supplying the water corporation with pipes to expand water distribution networks.

Estimating the actual scale of humanitarian interventions in the water sector during the war is challenging due to the absence of a unified regulatory mechanism. Efforts have been fragmented among multiple actors, including the Taiz Office of Planning and International Cooperation, local organizations, the Local Water and Sanitation Corporation, and direct initiatives by private sector actors who implemented and supervised certain projects themselves.

According to water sector experts, most of these interventions have been directed toward temporary relief efforts rather than strategic projects that could strengthen the city's long-term water security.



Organization / Entity			
1	Solidarités International	15	Bena Foundation
2	Norwegian Refugee Council	16	Al-Tawasul Foundation
3	CARE International	17	Al-Awn Foundation for Development and Response
4	INTERSOS	18	Generations Without Qat
5	Mercy Corps	19	My Message Foundation (Risalat)
6	Oxfam	20	Emirates Red Crescent
7	Islamic Relief	21	International Committee of the Red Cross
8	Samaritan's Purse	22	Al-Hikma Al-Yamaniya Association
9	Qatar Red Crescent	23	Ma'akum Foundation
10	Save the Children	24	UNICEF
11	Istijaba Foundation for Humanitarian and Relief Work	25	UNOPS
12	Kuwait Society for Relief	26	Social Fund for Development
13	Yemen Aid	27	Public Works Project
14	Swedish International Center for Rehabilitation	28	Urban Water and Sanitation Project

Table 2 shows organizations and entities intervening in Yemen's water sector, 2017–2022 ⁷

In July 2025, there was a notable development in Taiz's water crisis: an agreement was signed between the Local Water Corporation in Taiz city and its counterpart in Al-Hawban—an area under Houthi control, with the aim of resuming water services and restoring pumping from the main resources located in Houthi-controlled areas after years of complete shutdown.

This agreement, brokered by UN agencies, represents a case of technical interests aligning between parties to the conflict. However, its implementation on the ground continues to face significant challenges.⁸



8- United Nations in Yemen – For the first time in nearly a decade, the two water authorities in Taiz agree to cooperate across frontlines, July 3, 2025. <https://news.un.org/ar/story/2025/07/1142971>



Problem Diagnosis

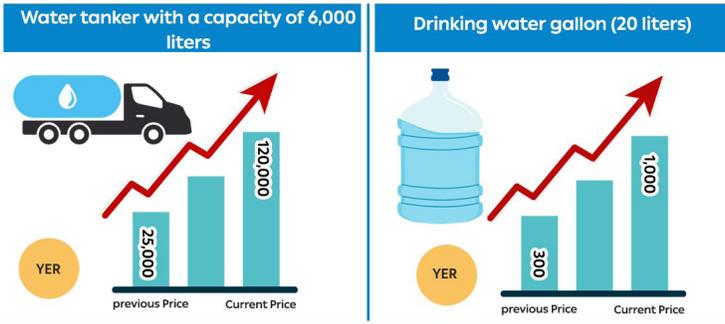
The core administrative and regulatory issue behind Taiz city's water crisis lies in the absence of administrative and oversight regulations governing the private water market, which has become the primary source of water supply for residents following the breakdown of the public water network.

Although the Local Water and Sanitation Corporation is legally mandated, under Water Law No. (33) of 2002, to manage and regulate the public water sector, the tasks of supervising private water supply, monitoring prices, ensuring water quality, and overseeing desalination plants and private water tankers are shared among multiple entities. This overlap has resulted in fragmented responsibilities and the absence of clear central authority.

Despite the clarity of roles within the legal framework, weak institutional capacity, the lack of effective coordination mechanisms, and deficiencies in legislation regulating private-sector water operations have collectively rendered these legal powers ineffective in practice. This has created a regulatory vacuum exploited by private water suppliers to operate the market in a disorderly manner, without price controls or technical standards, leading to sharp increases in water prices, declining safety and quality standards, and difficulty for residents in accessing safe and affordable water.

The crisis is currently manifested in the lack of a regulatory mechanism to keep water prices within reasonable limits. Prices are set arbitrarily, varying from one neighborhood to another and from day to day.

Since May 2025, Taiz city has been experiencing an acute water shortage and a steep rise in the cost of both household and drinking water. The price of a 6,000-liter water tanker has ranged between 80,000 and 120,000 Yemeni rials, compared to a pre-crisis average of no more than 25,000 rials. Likewise, the price of a 20-liter jerrycan of drinking water has risen from 300 rials to 1,000 rials amid limited supply and long queues of residents, particularly in densely populated neighborhoods.



In addition, there is weak oversight over the quality of water distributed via private tankers. There is no official mechanism for regular water testing, nor are there binding guarantees for water companies and suppliers regarding sterilization, proper storage, or safe transportation. Although relevant authorities have previously issued directives on monitoring, their application on the ground appears limited or entirely absent.

The lack of a licensing system for tanker drivers and well owners also opens the door to evading accountability and prevents the creation of an accurate database that could aid in monitoring and enforcement. Added to this is the phenomenon of unofficial levies imposed by influential actors, which increases service costs for citizens.

The water market in Taiz also lacks effective channels for citizens to submit complaints or report violations. The city has no reporting system, digital platforms, or even community committees that would allow residents to raise concerns about quality or pricing. This absence further deepens the trust gap between citizens and official institutions and undermines the latter's ability to intervene and regulate the market.



Stakeholders

Taiz's water crisis involves a range of actors who collectively form the primary parties responsible for managing this vital resource. Any future reform path will depend on the degree of coordination between these actors and their ability to adopt a unified vision and implement integrated interventions. Strengthening their role, within a clear partnership framework with the local authority and the Water Corporation, is a prerequisite for the success of any administrative reform in the sector.

Addressing the water crisis in Taiz requires building a participatory governance model that brings together official institutions, the private sector, civil society, and international support, ensuring transparency, strengthening oversight, and preventing the politicization of this sensitive resource in contexts of conflict and division, while prioritizing citizens' interests above all other considerations. The main stakeholders can be categorized as follows:

1. Ministry of Water and Environment

The Ministry of Water and Environment is the highest authority responsible for formulating national water policies, developing strategic plans for water resource management in Yemen, and providing technical oversight for Local Water and Sanitation Corporations. It is tasked with ensuring compliance with national standards, coordinating efforts with local authorities and donors, providing institutional and technical support, mobilizing resources to respond to crises, and working to improve sector legislation.

However, the reality of Taiz's water crisis reveals an almost complete absence of the Ministry's role, whether in direct intervention or in leading strategic initiatives to address the collapse. There have been no clear steps taken to coordinate efforts among various parties or to direct international support toward sustainable solutions. Its presence, where it exists, has been limited to small-scale interventions with minimal impact. One example is its oversight of the Talooq Project, aimed at improving the city's water supply, which stalled for years and has yet to become operational, reflecting

weak follow-up and a lack of accountability.

This underperformance points to a deeper issue: the weakness of water governance at the national level. Management of the crisis has been left almost entirely to the local Water Corporation, local authorities, and international organizations, resulting in fragmented efforts focused on short-term relief rather than long-term strategic solutions.

2. National Water Resources Authority (NWRA)

The NWRA is the national body legally authorized, under Water Law No. (33) of 2002, to manage and regulate water resources nationwide, including setting policies for the protection and development of surface and groundwater, issuing licenses for well drilling, regulating resource use, and monitoring water quality.

While these powers give the NWRA a central role in ensuring the sustainability of water resources, its presence in Taiz during the crisis years has been almost nonexistent. Its activity has been limited to issuing well-drilling permits, without conducting field inspections, monitoring the effects of excessive groundwater extraction, or overseeing water quality. This operational absence, amid the deterioration of the governorate's water situation, has left the field open to unregulated exploitation of water resources.

3. Local Water and Sanitation Corporation (LWSC)

The LWSC is the technical authority responsible for managing the water sector in Taiz city. However, its role has sharply declined since 2015 due to the deterioration of infrastructure, loss of funding, and loss of control over key water sources. Reports after 2016 indicate that LWSC has lost most of its operational capacity, including human resources and essential equipment. Despite some emergency technical and financial support, the Corporation still needs comprehensive institutional strengthening to restore its coordination and regulatory role over the water network.

4. Local Authority in Taiz

The local authority in Taiz has a direct supervisory role over the LWSC's performance and in regulating the water sector, through

issuing decisions, forming oversight committees, and approving pricing mechanisms. However, this role remains limited in light of administrative challenges. Despite some localized attempts to regulate the market, such as forming monitoring committees or setting temporary price caps, the local authority still lacks more effective tools for oversight and coordination with other stakeholders.

5. Private Sector Water Suppliers

The private sector is currently the most influential actor, as most residents rely on water delivered by tankers operated by companies and individuals. This pivotal role makes private-sector engagement in regulatory efforts essential, especially given the absence of administrative regulations. Some private-sector actors have expressed willingness to contribute in this area, opening the door to responsible partnerships based on compliance with technical and health standards.

6. Local Organizations

Local civil society organizations (CSOs) play a dual role, combining awareness-raising and oversight with direct contributions to water service provision. In addition to initiatives such as drilling wells or installing solar-powered pumping systems, these organizations can strengthen community monitoring through neighborhood committees and track suppliers' adherence to quality standards. Their capacity for community mediation makes them a key player in any local water governance model.

7. INGOs and Donors

INGOs and International donors play a vital role in sustaining the water sector, whether through financial and technical support to the LWSC, funding infrastructure projects, or developing monitoring and governance tools. Some donor countries have supported water agreements between Taiz and Al-Hawban, while various organizations have funded projects to improve access to water.



Current Policies

Field observations indicate the absence of a clear and organized local policy for managing the private water market in Taiz Governorate. This has resulted in a reality characterized by chaos and disorder, where water prices are set arbitrarily by well owners and water tanker operators, in the context of evident regulatory shortcomings and the absence of effective mechanisms to control profit margins. This situation has worsened the water crisis, with the cost of obtaining water exceeding the purchasing power of low-income households, especially in peripheral and densely populated neighborhoods.

Legally, the Local Corporation for Water Supply and Sanitation derives its authority from Water Law No. (33) of 2002, which grants it full technical and administrative jurisdiction over the city's public water network and ensures service quality. The Local Authority Law No. (4) of 2000 also defines the role of local authorities in supervising the Corporation and ensuring the implementation of water policies at the local level. However, despite the clarity of these powers in theory, they have not been effectively implemented due to weak institutional capacity, limited resources, and overlapping mandates with other entities, particularly under the emergency conditions faced by the city of Taiz.

At the national level, the Ministry of Water and Environment is responsible for formulating national water policies, guiding local institutions, and coordinating donors. Yet, its engagement with the Taiz water crisis has been almost entirely absent from the field, limited to a few stalled projects, depriving the city of the institutional support needed for long-term, sustainable solutions.

The National Water Resources Authority (NWRA), the body legally mandated under Water Law No. (33) of 2002 to manage and regulate water resources, including setting policies for the protection and development of surface and groundwater, regulating their use through well drilling, deepening, and maintenance licenses, and monitoring resources to prevent pollution and depletion has, during the crisis, limited its role in Taiz to granting well-drilling licenses. It has not engaged in field monitoring, regulating excessive resource exploitation, or organizing the market. This has deepened the chaos, particularly in the absence of coordination with the Local Water Corporation and the local authority.

Regarding oversight of the private water market, responsibilities

are divided among several entities: the NWRA and the Office of Industry and Trade supervise private wells; the Office of Transport and the Office of Industry and Trade oversee water tankers; and desalinated mineral water plants (“Al-Kawthar”) fall under the joint supervision of the NWRA, the Office of Industry and Trade, and the Office of Public Works. This multiplicity of authorities, without a unified coordination mechanism, has led to fragmented responsibilities and difficulty in enforcing comprehensive oversight.

Category	Supervising Authority
Private wells in the city and suburbs	NWRA and Office of Industry and Trade
Water tankers	Office of Transport and Office of Industry and Trade
Desalinated mineral water plants (Al-Kawthar)	NWRA – Office of Industry and Trade – Office of Public Works

In addition, there is no mandatory licensing system for tanker drivers, nor an official database to track their operations or regulate their work, making it difficult to monitor water quality and storage/transport conditions. In many cases, water is sold without testing or treatment, exposing the population, particularly vulnerable groups, to direct health risks.

The city of Taiz also lacks effective mechanisms for receiving citizen complaints or addressing violations. There are no direct communication channels between citizens and oversight bodies, whether through official offices, online platforms, or otherwise, weakening public trust in government institutions and leaving residents without legal protection.

Overall, policies governing the water market in Taiz can be described as a case of “institutional disorder,” marked by the absence of clear regulations and a lack of enforcement, monitoring, and evaluation mechanisms. This has created an unregulated parallel market, beyond accountability, which burdens residents and undermines equitable access to this essential life resource.



Proposed Policies and Solutions

Addressing the water crisis in Taiz requires a comprehensive approach to rebuild the institutional framework for managing the sector and unify its regulatory references, ensuring clear mandates and complementary roles among relevant entities. Under Water Law No. (33) of 2002, both the NWRA and the Local Water Supply and Sanitation Corporation are the main authorities mandated to manage and regulate the water sector. The NWRA holds a national strategic role focused on protecting and developing water resources and regulating their use, including issuing well-drilling licenses, and monitoring over-extraction and pollution, while the Corporation is responsible for operating and maintaining supply networks, distributing water to consumers, and managing related infrastructure.

However, the absence of the NWRA's field role in Taiz, combined with the decline in the Local Water Corporation's operational and technical capacity since 2015, has created a regulatory and supervisory vacuum, filled by an unregulated private market driven solely by supply and demand, without pricing controls or quality standards.

From a supervisory standpoint, Local Authority Law No. (4) of 2000 grants the local authority the power to monitor the Corporation's performance and ensure the implementation of water policies at the local level. The Ministry of Water and Environment is tasked with formulating national policies, guiding local water institutions, and coordinating with donors. Yet, in practice, this institutional framework has remained inactive due to weak coordination, overlapping mandates, and inadequate legislation governing private sector operations.

The required reform involves re-empowering the Local Water Corporation to serve as the main operational driver of the city's water sector, while activating the Ministry of Water and Environment's strategic role in policymaking and oversight. Coordination with the NWRA and the Rural Water Authority should be expanded to ensure

role integration, while creating opportunities for private sector investment under strict legal frameworks and quality standards.

This would establish a participatory governance model involving the government, local authorities, civil society, the private sector, and donors, ensuring equitable water distribution, limiting exploitation, and laying the foundations for sustainable water security.

Based on this diagnosis, this Paper presents two complementary matrices:

1. Administrative and regulatory solutions to reform water sector governance and regulate its market.
2. Technical solutions to improve infrastructure and strengthen the sustainability of water resources in Taiz city.

Matrix of Proposed Solutions for Water Governance in Taiz

Time-frame	Proposed Solution	Implementation Measures
Short-term (urgent)	<p>Regulate the private water market: Establish a temporary, flexible regulatory mechanism to organize the private water market, which is currently the main source for residents.</p>	<ol style="list-style-type: none"> 1. Establish a joint local monitoring unit comprising representatives from the local authority, the Water Corporation, civil society organizations, and community figures, with direct executive authority. 2. Develop and issue a monthly reference price list based on production and transportation costs plus an acceptable profit margin, update it regularly, and publish it via media and community platforms. 3. Launch a temporary licensing and registration system for tanker drivers, well owners, and desalination plants to create a database that facilitates oversight and accountability. 4. Develop multi-channel complaints mechanisms (hotline, mobile app, community leaders) to improve citizen interaction and respond quickly to violations. 5. Launch public awareness campaigns on water conservation, in partnership with civil society organizations and media outlets, to promote responsible water use and reduce waste in neighborhoods and public facilities. 6. Activate the mechanism for collecting water bills from subscribers by updating beneficiary records, in order to strengthen the capacity of the Local Water Corporation to recover part of its financial resources, thereby enabling it to improve its operational and regulatory services

<p>Medium-term</p>	<p>Reinforce the Water Corporation and build partnerships: Restore the central role of the Local Water and Sanitation Corporation, uniting all stakeholders' efforts to provide sustainable services.</p>	<ol style="list-style-type: none"> 1- Rehabilitate the infrastructure of the Local Water and Sanitation Corporation (wells, pumps, transmission lines) and provide the necessary staff and operational equipment. 2- Coordinate with the National Water Resources Authority and the Rural Water Authority to manage shared resources and prevent overlapping mandates, particularly in areas serving both urban and rural communities. 3- Involve regulated private sector actors in water production and distribution through licenses conditioned on high health and quality standards. 4- Activate community awareness and monitoring committees through volunteer neighborhood committees acting as a bridge between citizens and regulatory bodies. 5- Coordinate with the Public Works Office to link building permits to the requirement of installing ground tanks connected to rooftops to enhance rainwater harvesting and sustainability.
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<p style="text-align: center;">Long-term (strategic)</p>	<p>Sustainable governance and water security: Develop a comprehensive water security plan and establish a robust, sustainable governance framework to enhance the governorate's ability to manage future crises.</p>	<ol style="list-style-type: none"> 1- Develop an integrated urban water plan for Taiz City, led by the Ministry of Water and Environment, the Water Corporation, and the local authority, with donor support. 2- Invest in strategic solutions such as seawater desalination plants in Mocha, and facilities for treating saline or greywater, to diversify resources and reduce pressure on groundwater. 3- Build a participatory governance system with technical and financial independence, including the state, private sector, civil society, and donors.
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Matrix of Proposed Technical Solutions to Address the Water Crisis in Taiz

Timeframe	Proposed Measures	Objective / Expected Impact
Short-term (urgent)	1. Reduce daily per capita water consumption from 34 liters to 20 liters.	Reduce demand to 21,000 m ³ /day and narrow the water gap.
	2. Operate three wells in the Al-Dhabab area with a daily production capacity of around 1,000 m ³ .	Improve immediate water supply.
	3. Deepen the Al-Noor City well from 15 to 20 meters, increasing production from 1 to 9 liters per second, and propose deepening 10 similar wells.	Better utilization of existing wells at low cost.
	4. Implement a "concentration" policy by pumping water to a central reservoir (e.g., Al-Manakh reservoir) and then distributing it alternately to city neighborhoods for several days.	Improve network pressure and water access to upper floors.

Medium-term	1. Drill new wells in neighborhoods and areas currently not served by the water network.	Expand geographic coverage
	2. Rehabilitate old, deteriorated pipelines to reduce leakage and water loss.	Improve infrastructure efficiency
	3. Continue efforts to implement the agreement with Al-Hawban authorities to pump water from major fields in Al-Hawban.	Improve water supply.
	4. Operate small desalination plants in areas with available saline water.	Provide safe, sustainable alternatives
	5. Activate long-idle wells such as Al-Ajinat and Al-Dhahi after addressing technical and political challenges.	Utilize existing resources.
	6. Support initiatives by local businessmen willing to fund or execute well drilling and equipping projects.	Engage the local private sector in solutions.
Long-term (strategic)	1- Establish a modern, integrated water network covering the entire city, designed to minimize losses.	Provide stable, modern infrastructure.
	2- Invest in solar energy systems to operate wells independently of the public electricity grid	Ensure energy sustainability and reduce operating costs.
	3- Build central desalination plants (in Mocha) to treat water and connect them to Taiz's water network.	Expand water sources and achieve water security.



Conclusion

This paper examined the complex dimensions of the severe water crisis in Taiz City, which has been greatly exacerbated by years of conflict and its impact on infrastructure and public institutions. These conditions have led to the emergence of an unregulated private water market characterized by high prices and lack of quality control, placing a heavy burden on citizens and threatening the city's future water and public health security.

The core problem lies not only in the scarcity of water resources but also in the absence of an effective administrative and regulatory framework, the weak institutional capacity of relevant authorities, particularly the Local Water and Sanitation Corporation and the National Water Resources Authority, overlapping mandates among multiple agencies, lack of effective coordination mechanisms, inadequate regulations for the private water market, and the fragmented nature of humanitarian interventions that often lack sustainability and strategic planning.

The paper underscores the urgent need to re-empower the Local Water and Sanitation Corporation as the technical and administrative authority mandated to manage the public water network within the city, alongside activating the regulatory role of the National Water Resources Authority, particularly in organizing the exploitation of groundwater and surface water resources, licensing control, and oversight of desalination plants and wells.

This requires rehabilitating the Corporation's infrastructure, providing it with necessary staff and equipment, and enabling the Authority to fulfill its on-ground regulatory role to control the market and limit excessive resource depletion.

The paper also emphasizes the importance of establishing a participatory governance model involving the government, the regulated private sector, civil society organizations, and international donors

to ensure transparency, accountability, and alignment of efforts toward a common goal.

The proposed solutions, whether short-, medium-, or long-term, are based on the principles of inclusivity and sustainability. By activating community-based monitoring mechanisms, regulating the private water market, and setting fair prices, the immediate burden on citizens can be alleviated. In the long run, investing in sustainable infrastructure projects such as drilling new wells, rehabilitating old pipelines, implementing rainwater harvesting techniques, and establishing desalination plants will form the foundation for long-term water security.

Effective coordination between all stakeholders, including the National Water Resources Authority, the Public Works Office, the Office of Industry and Trade, and the local authority, will ensure optimal use of available resources and prevent mandate conflicts.

In conclusion, the water crisis in Taiz is not merely a technical or logistical challenge but a humanitarian and developmental issue requiring strong political will, strategic planning, and concerted efforts at all levels. Adopting and seriously implementing the proposed solutions outlined in this paper will pave the way toward a more stable and equitable water future for Taiz residents, guaranteeing their basic right to clean, safe, and affordable water, thereby contributing to the city's resilience and stability under current conditions.



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