Every Drop Counts 03-06-2025

1 - Climate Change: Lebanon water drought crisis summer 2025

	1st Reading			2nd Reading		3rd Reading		4th Reading		5th Reading		
Borehole Site	1-May-23	1-May-24	1-May-25	5-May-24	5-May-25	12-May-24	12-May-25	19-May-24	19-May-25	26-May-24	26-May-25	
1. Sadaka - Zahle												
well dynamic level	67.5	73.7	57.7	73.75	57.97	73.75	57.64	73.75	56.88	73.75	56.53	-15
well static level	68.4	74.8	60.1	74.53	60.24	75.04	60.06	75.02	59.36	74.96	58.81	
2. Shmistar												
well dynamic level	62.5	105.29	89.9	95.65	91.2	93.03	93.02	100.68	97.52	96.24	89.61	-5
well static level	141.22	141.04	137.63	140.88	137.09	140.96	136.65	140.78	134.35	139.4	135.51	
3. Temnine												
well dynamic level	130.04	146.96	74.96	144.31	76.44	142.7	70.88	140.89	77.62	139.11	73.05	-70
well static level	137.45	151.92	82.57	151.27	82.25	150.15	81.02	148.3	81.02	146.53	80.43	
4. daher lahmar												
well dynamic level	185.7	172.4	124.18	148.07	171.46	167.41	155.4	169.37	173.48	160.92	123.94	-30
well static level	218	228.04	199	223.09	195.05	221.13	188.52	220.09	195.26	213.85	188.89	
5. Ein Zebdi												
well dynamic level	118.37	124.94	148.3	124.55	192.08	123.48	179.52	124.1	172.13	124.18	171.88	-45
well static level	120.84	128.8	156.3	127.65	194.65	127.14	177.72	127.9	169.3	127.14	167.89	

2 - Can we still afford this?

Ali el Nahri - 2024

Zahle - 2024

Lebbeya - 2025

Batoulay - 2025

Leaks (visible or hidden) have a negative impact on network performance, acting as open demands and resulting:

- Decreased Pressure and Inadequate Service
- Wastage of precious Resources (Water & Energy & Treatment)
- Intrusion of pollutants inside of the supply network
- Various safety and Health hazards to the residents (structure damages, Vector reproduction, etc..)

2 - Can we still afford this?

We will not include the names of the localities or households where we found illegal use of the water networks because it's Everywhere !

the main reason for this Abuse of the Schemes is the lack of internal and external **Accountability**

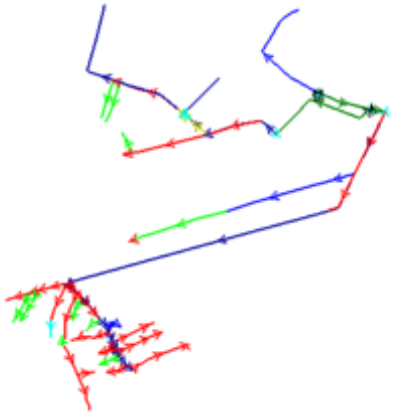
Violations:

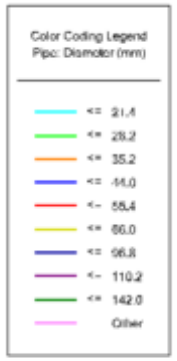
- Residents using the potable network to irrigate agriculture land!
- Residents using the potable network to fill swimming pools!
- Residents using the potable network in ice making factory, car wash, laundry mat, food industries!
- Residents using the potable network to fill a private borehole!! – could be considered artificial recharge of aquifers!!

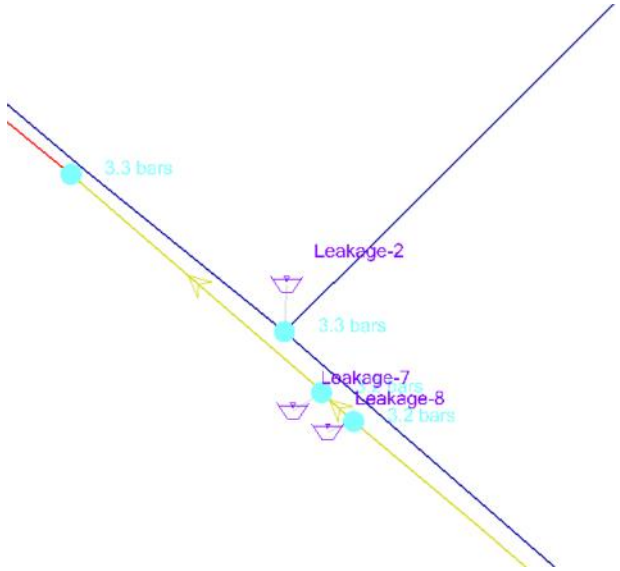
3 - How WeWorld is considering water and climate change in project design and implementation:

A- Water Governance on the public Schemes, Service Improvements and Cost Recovery (SICR):

Calibration of Hydraulic Models, Leak detection campaigns, Monitoring of water consumption, contracting works to off-set the each wasted drop back to the public network







Leakage #	Water quantity (m3/h)
Leakage-1	12.4
Leakage-2	7.2
Leakage-4	6.8
Leakage-5	6.7
Leakage-6	0.4
Leakage-7	1.1
Leakage-8	1.3
Estimated Total physical loss (m3/h)	**35.9**

Play HawkaMaa-EU SICR component

Ali el Nahri - 2024

Funded by the European Union
بتمويل من الاتحاد الأوروبي

HawkaMaa - EU
حوكماء - الإتحاد الأوروبي

A- Water Governance on the public Schemes, Service Improvements and Cost Recovery

Example of the proposed works now completed on Ali el Nahri water during June 2024 :

Stages of Implementation	Proposed measures and solutions
Preparation and cleaning	Clean all the surface boxes (this is requested and can be done by BWE staff or daily workers before the intervention of any contractor)
First intervention for the network improvement	Repair visible leakages (Refer to Annex 3 for locations and description of needed works)
	Repair defected valves and rehabilitate the old manholes (Refer to Annex 3 for locations and description of needed works)
	Disconnect Municipality garden neighborhood when supplying El Saha and Kroum Neighborhoods and supply it together with El Bayader neighborhood being the smaller neighborhood with the lower demand
	Disconnect Kroum area when supplying Bayader Neighborhood
	Install district meters including manholes construction at various locations on the network in order to allow future control and monitoring of water consumption and losses.
Second step - short term solution	Conduct leak detection campaigns in order to detect additional invisible leakages
	Re-calibrate the network after first intervention in order to evaluate the obtained results and design further interventions
	Evaluate the first intervention outcome and re-evaluate the supply of Municipality garden neighborhood together with El Bayader
Long term strategy to be adopted by the BWE	Construct a new network for the whole locality with an adequate design taking into consideration the actual and future needs
	Disconnect illegal connection / subscribe all connected population
	Supply the Municipality neighborhood by The Municipality garden well following the equipping of The garden Well
	Improve the water quantity at source level in order to meet all population needs
	Install water meters at house connections in order to control and monitor the water consumption, leakages and illegal connections

B- Community Engagement and social involvement

Various types of Water Campaigns:

- Illegal disconnection / removing violations jointly conducted with the WE
- Community Perception Research (CPR)
- Water conservation awareness campaigns
- WaterWise sessions (targeted audience, specific modules)
- Project Progress community meetings
- Subscription and Collection Campaigns – Cost recovery
- Complaints Mechanism & Conflict Resolutions
- Update of Costumer Data Base
- Communication & Visibility – Inaugurations, Events, etc.

C- New Proposals to target directly Households

Trying to grow the public benefit sense in Lebanon Communities

A pilot is set at municipal, school and household level: water-saving techniques such as a kit composed of water-efficient faucet aerators, moisture meters, drip irrigation system, pipe tape, and plumbing fittings to separate grey from black water for reuse. A storage tank collects condensate drains from air conditioning and rainwater collectors. Mulching techniques are introduced to maintain humidity and save water for irrigation. All saved water serves to water a municipal or school garden with native drought-resilient plants as a demonstration for the citizens.

Citizens need to visualize the water saving quantity and link it to public benefit in their street, neighborhood, locality, district and eventually in all entire Lebanon!

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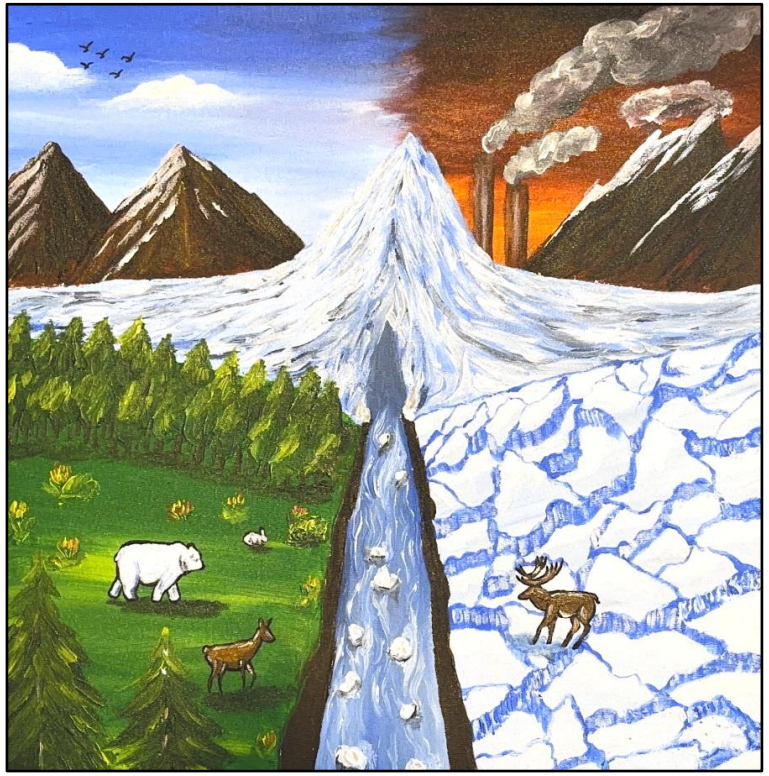
A Climate Resilient Water Supply System

- A climate resilient water supply is a system designed to withstand and adapt to the impacts of climate change, such as extreme weather events, altered precipitation patterns, and rising temperatures. This involves a combination of strategies, technologies, and practices to enhance the ability of water infrastructure and management to cope with these challenge

- Risk Assessment and Management
- Infrastructure Resilience
- Diversification of Water Sources
- Improved Water Management Practices
- Community Engagement & Capacity Building
- Policy and Institutional Support

https://iwa-network.org/projects/climate-resilient-water-safety-planning-to-improve-water-supply-and-public-health/



AFD water action in North Bekaa – Fekha drawing competition WWD 2025: Save Our Glaciers – Maymouna School

Thank you for your **Attention**