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# Socio-economic Barriers to Subscription, Payment, and Servicing in the Water Sector in Lebanon

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REF.#: 33-4/JULY 2024

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01

## Introduction



- Since 2022, Lebanon is experiencing a rapidly changing water situation amidst a multifaceted crisis, marked by severe economic decline that is **weakening institutional capacity** and **household purchasing power**.
- Various projects are looking at addressing water supply needs at both household and institutional levels. one of which is **the Hawkamaa-EU project- a 4-year Consortium- funded by the European Union**, aiming to support water governance and improve the provision of public water and wastewater services for people in Lebanon.
- It is within the framework of this project that **the Socioeconomic barriers to water subscription, payment, and servicing in Lebanon study** was conducted, to support water reforms and policies with regards to tariffing and servicing.

The study aims to address the following questions:



A horizontal timeline with three circular markers. The first marker is blue and has a blue callout box above it. The second marker is blue and has a blue callout box below it. The third marker is teal and has a teal callout box above it. The timeline itself is a grey line with short segments at each marker.

Socioeconomic barriers preventing rights holders from subscribing to public water supply

Willingness and capacity of rights holders to pay for services under the new tariffs of the 5-year recovery plan

Perceptions of rights holders on the capacity of institutions, including Water Establishments, to deliver water



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## Methodology

- A survey of **600 households was conducted**, distributed over Akkar, North, Beirut, Mount Lebanon, Baalbeck/Hermel, Beqaa, and South. In addition, **seven focus groups** were conducted in each of the governorates.
- Data collection for the household survey took place between March 20, 2024 and April 22, 2024 amounting to 600 questionnaires distributed. The distribution of surveys over the governorates and areas is detailed in the table below:

Governorate	Area	Number of Surveys
Akkar	Mhammaret	40
	Halba	40
Baalbeck/Hermel	El Chaab	40
	El Soloh	40
	South Doris	40
Beirut	Mazraa	40
	Achrafieh	40
North	Trablous et Tabbaneh	40
	Qalamoun	20
	Heri	20
South	Saida El-Qadimeh	40
	Ansarieh	40
Bekaa	Qob Elias	40
	Ali Al Nahri	40
	Barr Elias	40
Mount Lebanon	Choueifat-Al Omara	12
	Choueifat - Qobeh	13
	Choueifat - Amrousieh	15
<b>Total</b>		<b>600</b>

- Focus Groups Discussions took place from April 3, 2024, until May 23, 2024. The list of FGDs and their locations is detailed in the table below:

Governorate	Location
Baalbeck/Hermel	Douris
Akkar	Halba
North	Tripoli/Mina
Bekaa	Ali Nahri
South	Saida
Mount Lebanon	li offices (Beirut)
Beirut	li offices (Beirut)





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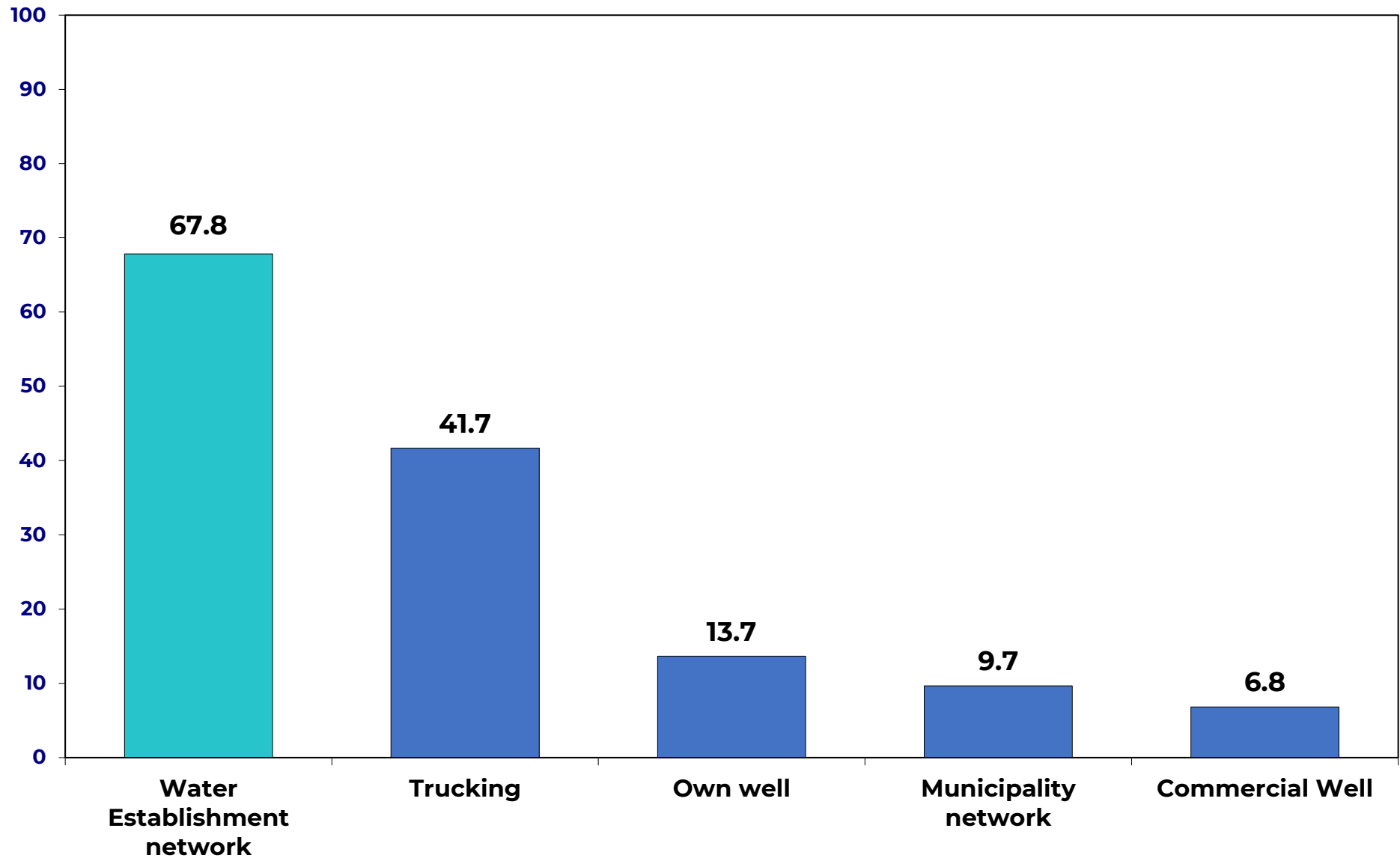
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03

## Survey Findings

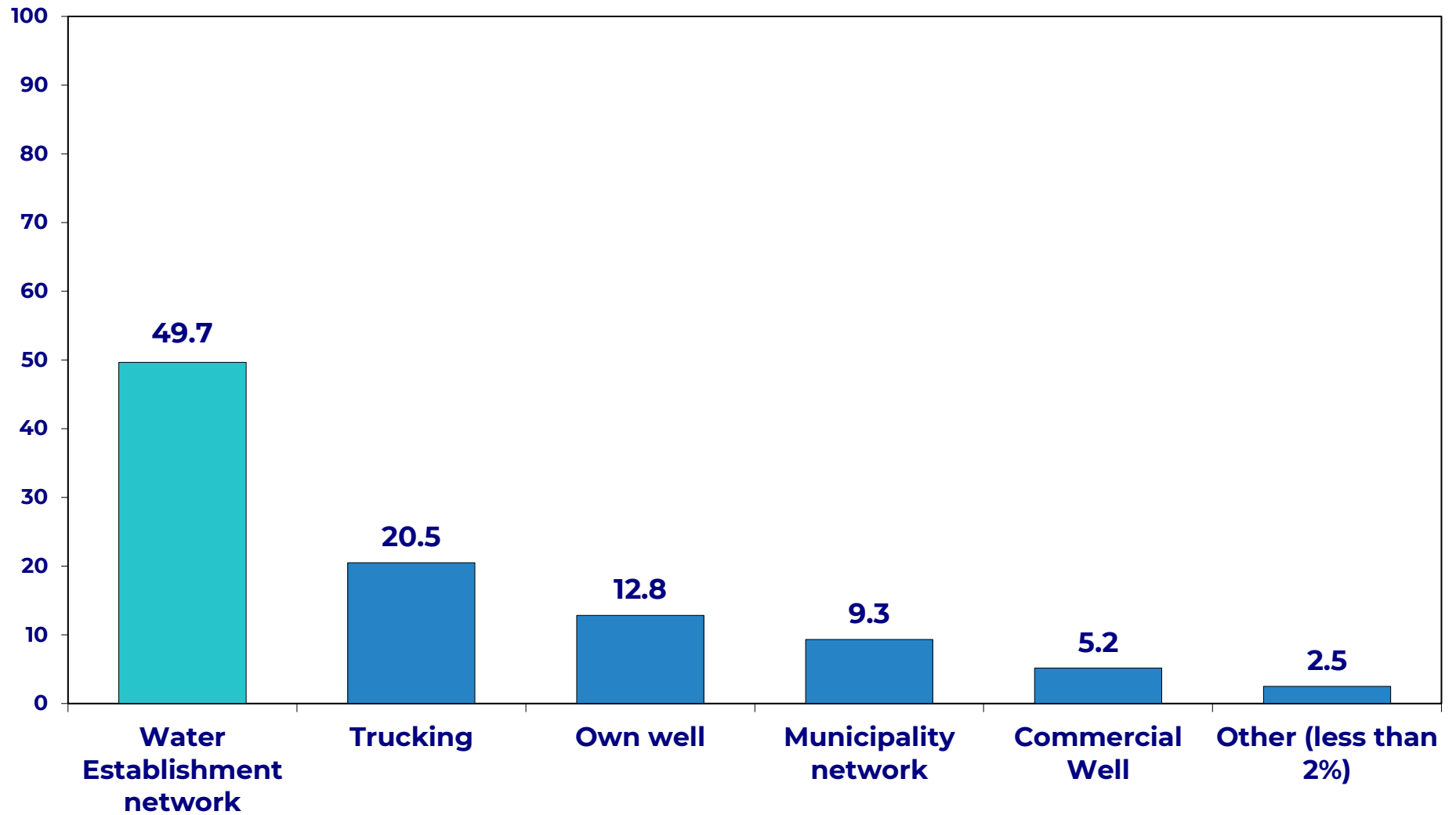
# Main Water Source



## Main Water Source By Governate

Is your house connected to the WE network?	Beirut	Mount Lebanon	South	North	Bekaa	Baalbek-Hermel	Akkar	Total
Yes	78.8%	97.5%	100.0%	67.5%	80.8%	94.2%	86.3%	85.8%
No	21.3%	2.5%	0.0%	32.5%	19.2%	5.8%	13.8%	14.2%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

## Most Used Water Source



## Most Used Water Source By Governate

Which source do you use the most / do you rely on?	Beirut	Mount Lebanon	South	North	Bekaa	Baalbek-Hermel	Akkar	Total
Water Establishment network	53.8%	<b>90.0%</b>	<b>91.3%</b>	12.5%	35.8%	65.8%	17.5%	49.7%
Trucking	<b>33.8%</b>	0.0%	6.3%	20.0%	<b>36.7%</b>	23.3%	3.8%	20.5%
Own well	11.3%	7.5%	2.5%	<b>47.5%</b>	2.5%	10.0%	12.5%	12.8%
Municipality network	0.0%	0.0%	0.0%	17.5%	0.0%	0.0%	<b>52.5%</b>	9.3%
Commercial Well	0.0%	0.0%	0.0%	0.0%	19.2%	0.0%	10.0%	5.2%
Small scale private network	0.0%	0.0%	0.0%	0.0%	5.0%	0.8%	0.0%	1.2%
Free public Springs	0.0%	0.0%	0.0%	2.5%	0.8%	0.0%	3.8%	1.0%
Other: From the neighbors	1.3%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



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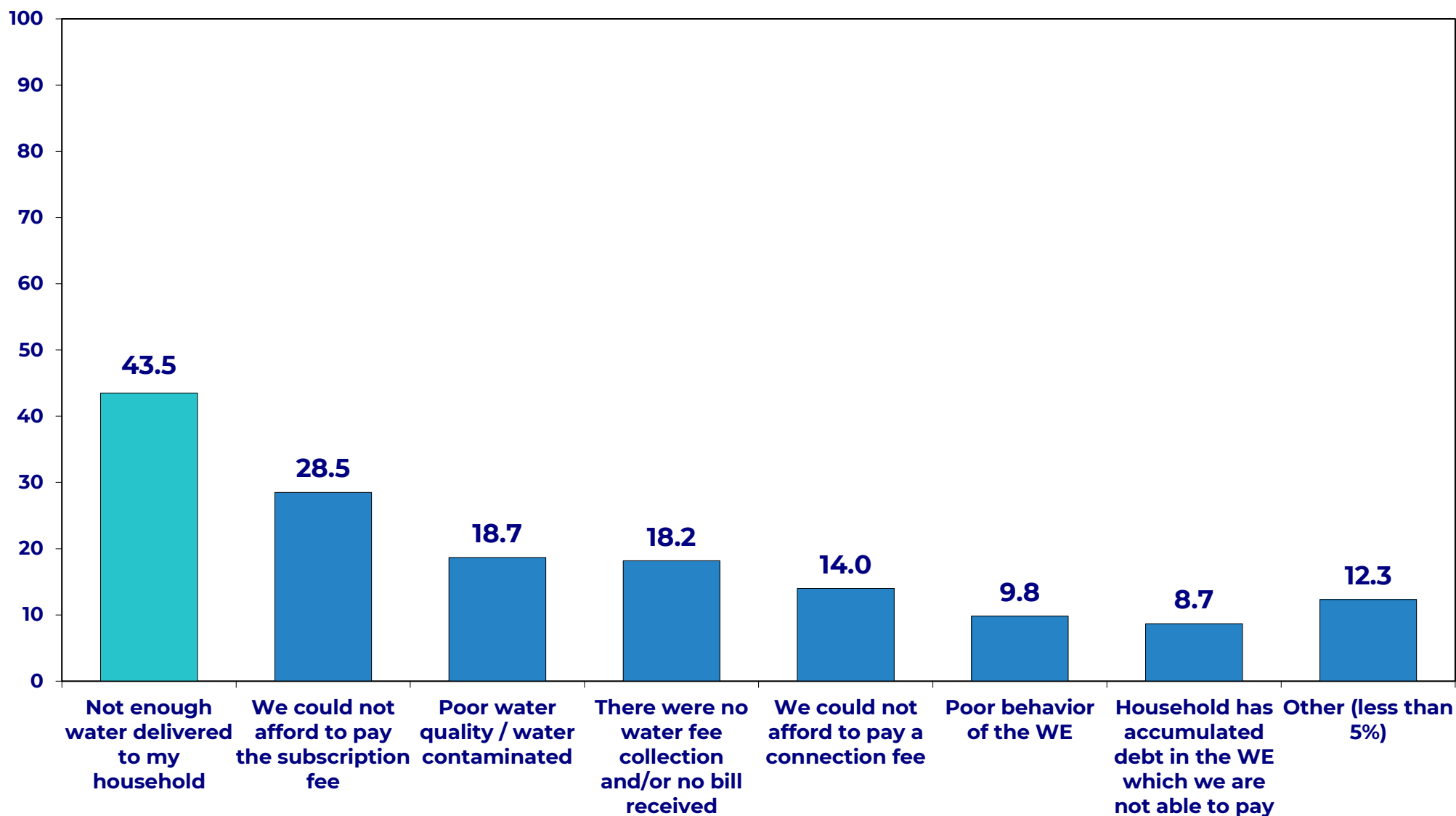


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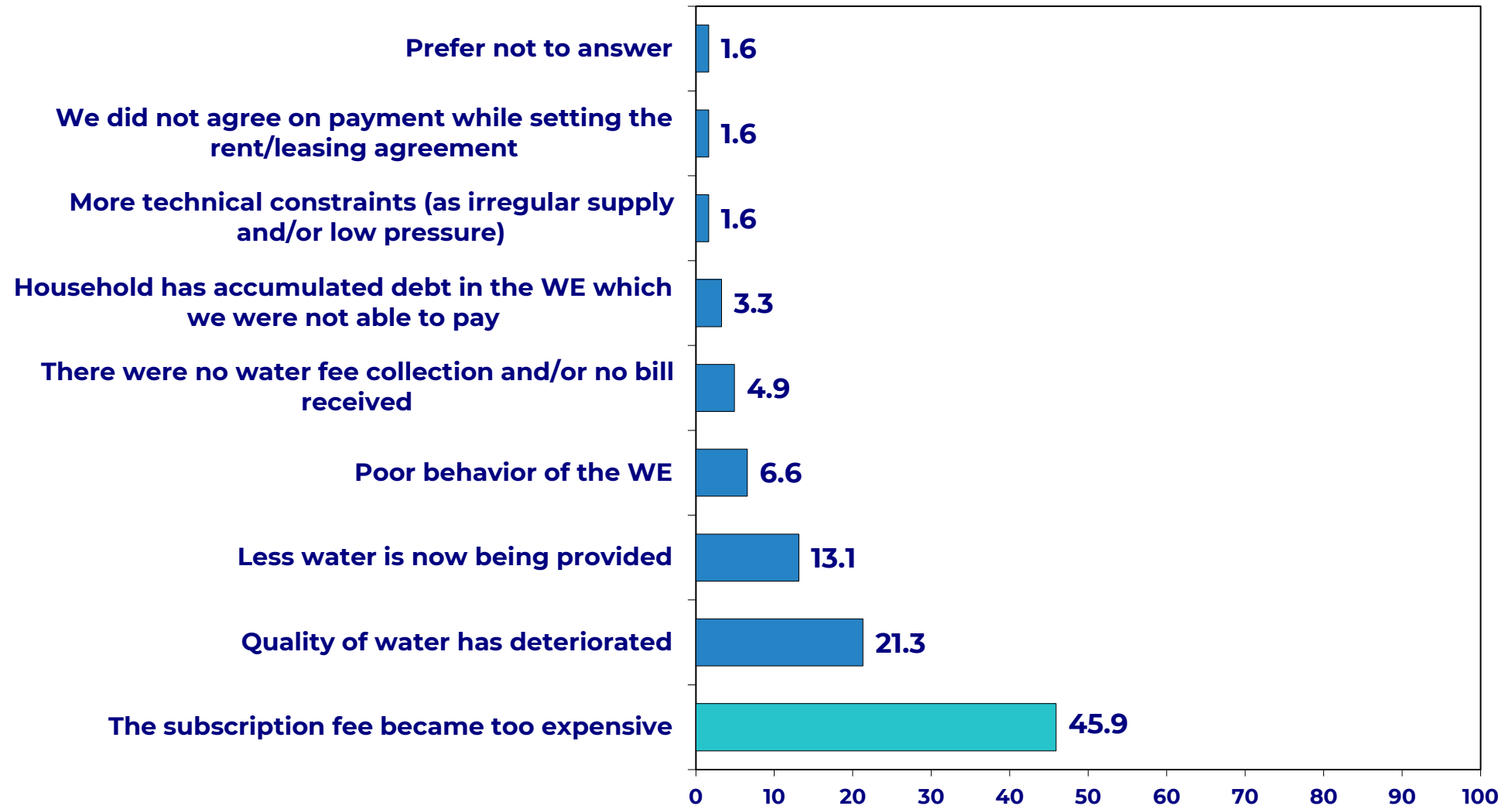


## Main Barriers to Subscribe to Public Water Supply in Lebanon

## Main reasons for lack of subscription at household (only Yes answers)

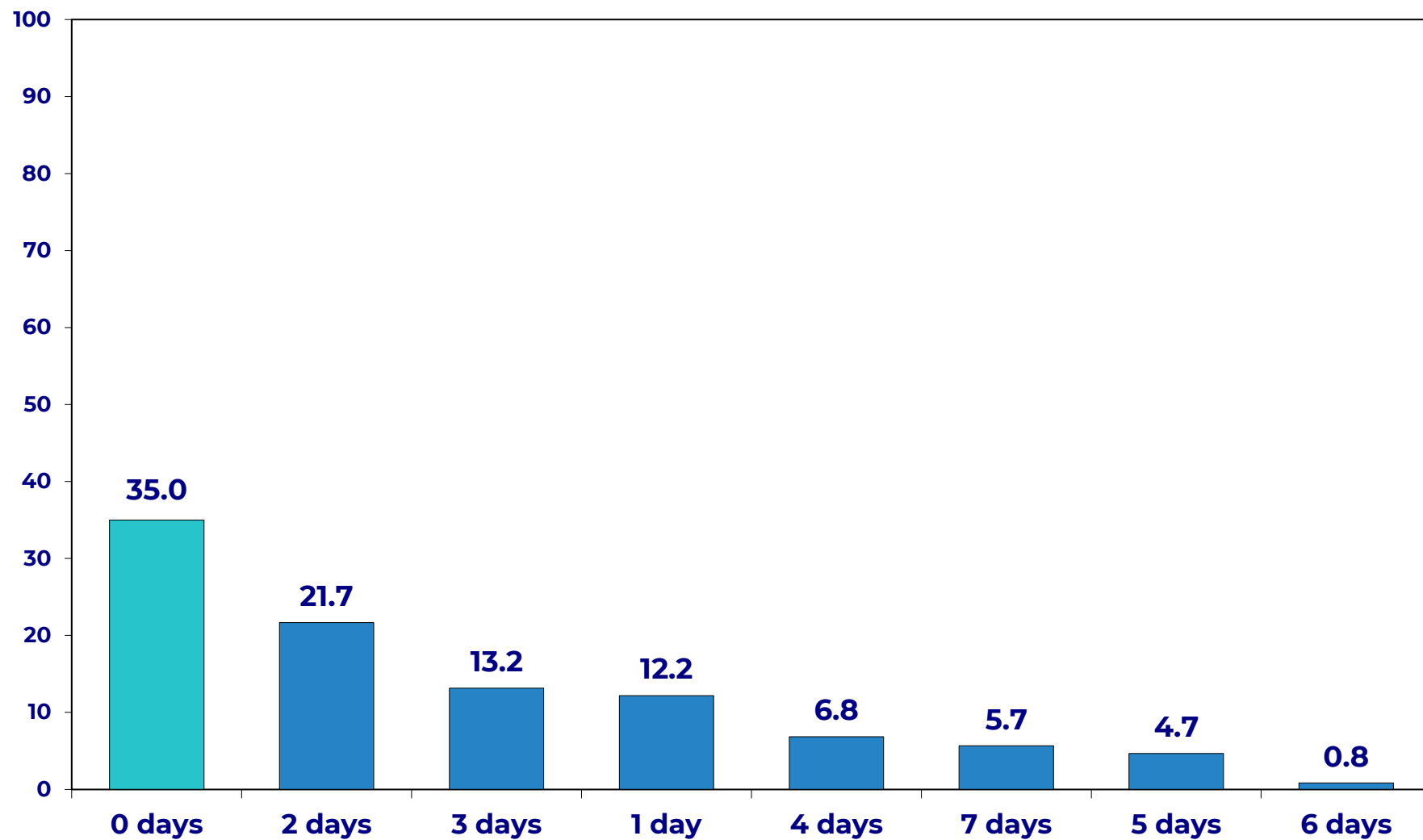


# If paid subscription in 2022 or 2021 but not subscribed currently, what are the reasons for stopping the subscription?





# Number of Days Water was Received from the WE network per week in the Last Month



# Average Number of Hours of Good Quality Water per Day from WE During the Past 3 Months

Thinking about the previous 3 months, on average how many hours of good quality water your household had daily from WE?	%
No good quality water	30.7%
1 - 4	54.1%
5 - 10	9.3%
11 - 14	2.0%
15 - 19	2.0%
20 - 24	1.0%
I do not know	1.0%
<b>Total</b>	<b>100.0%</b>



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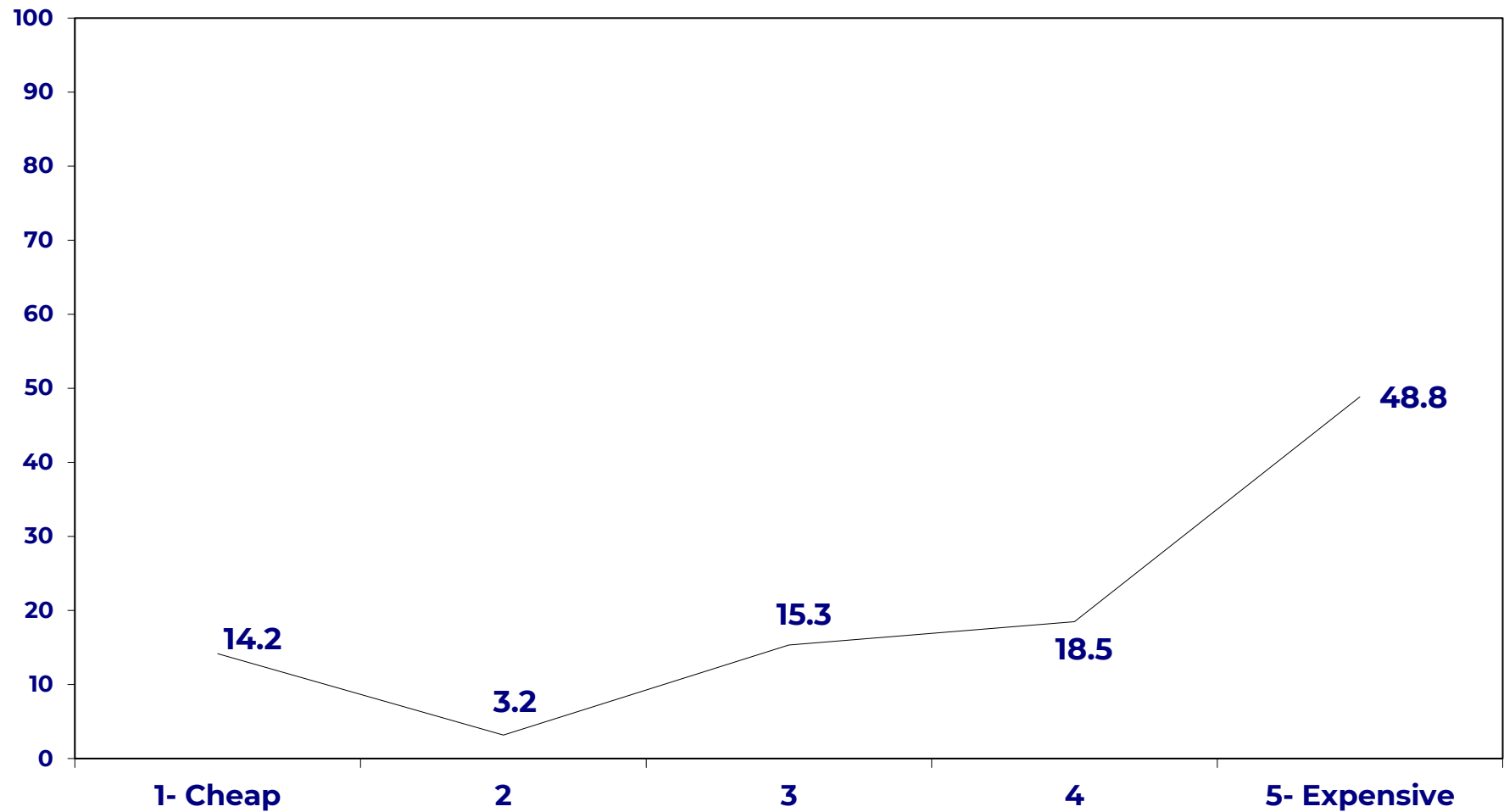


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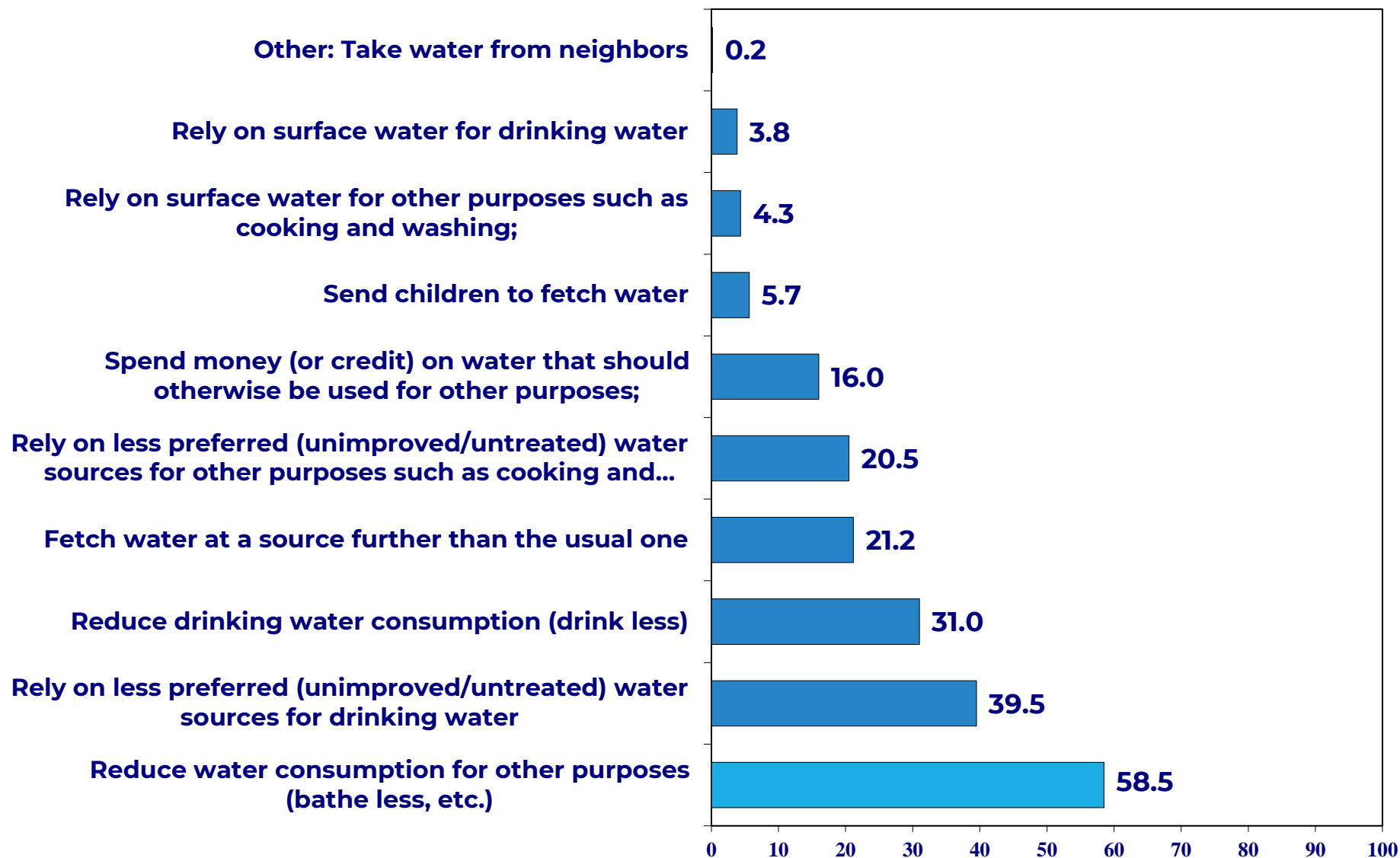


## Perception of Water Received through the WE

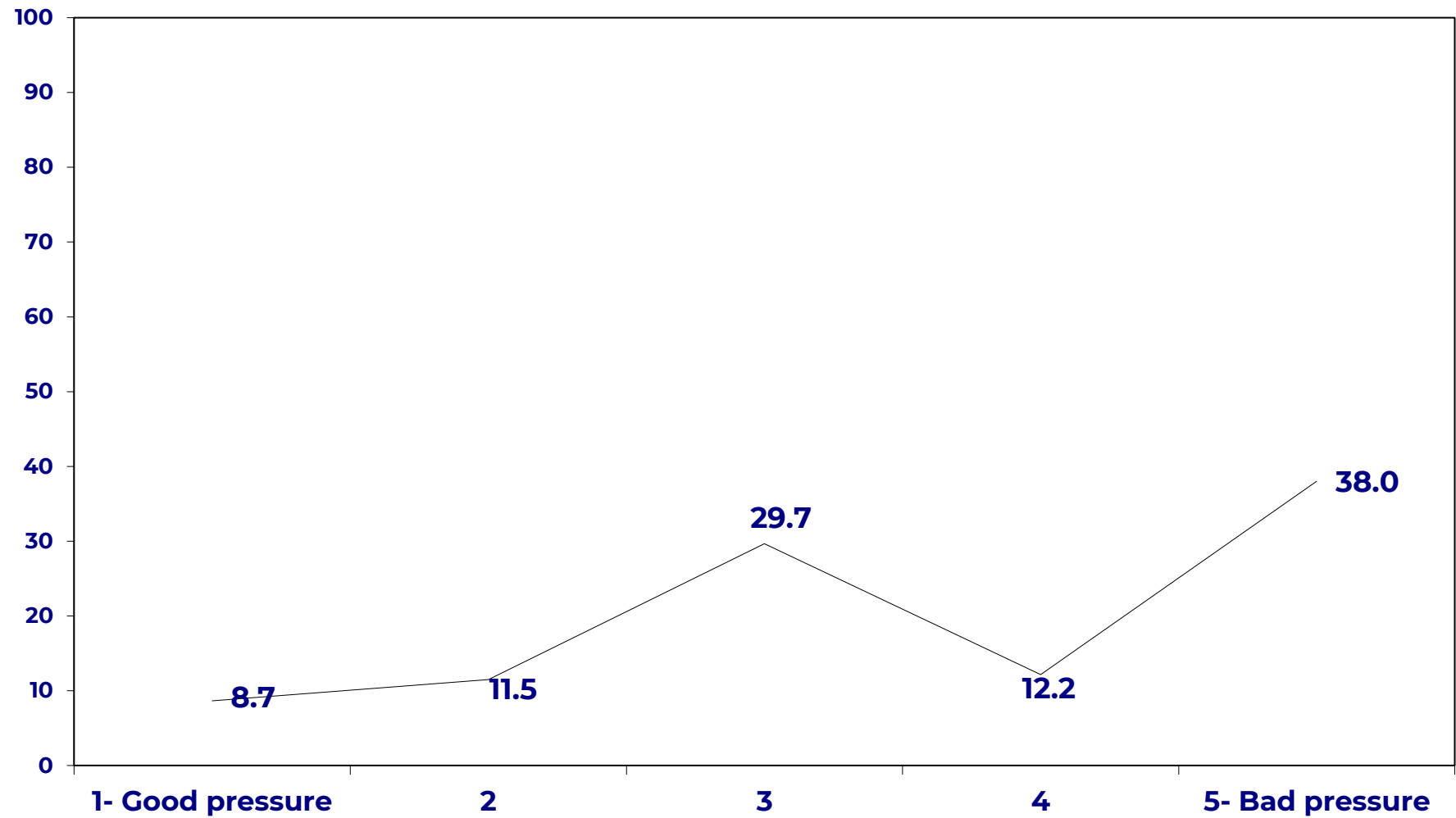
# Price of the water received through the WE network



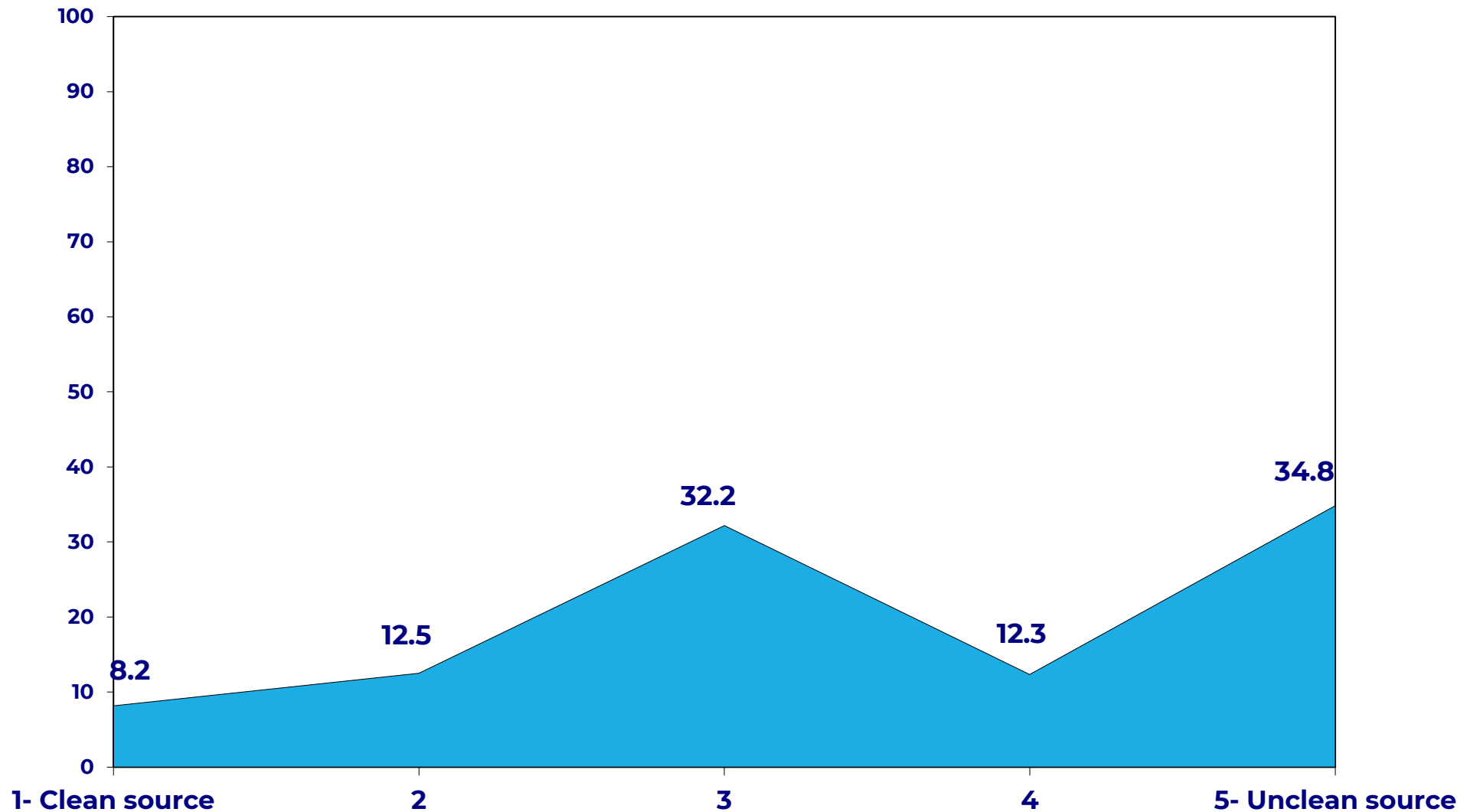
# Methods of Adaptation to lack of water



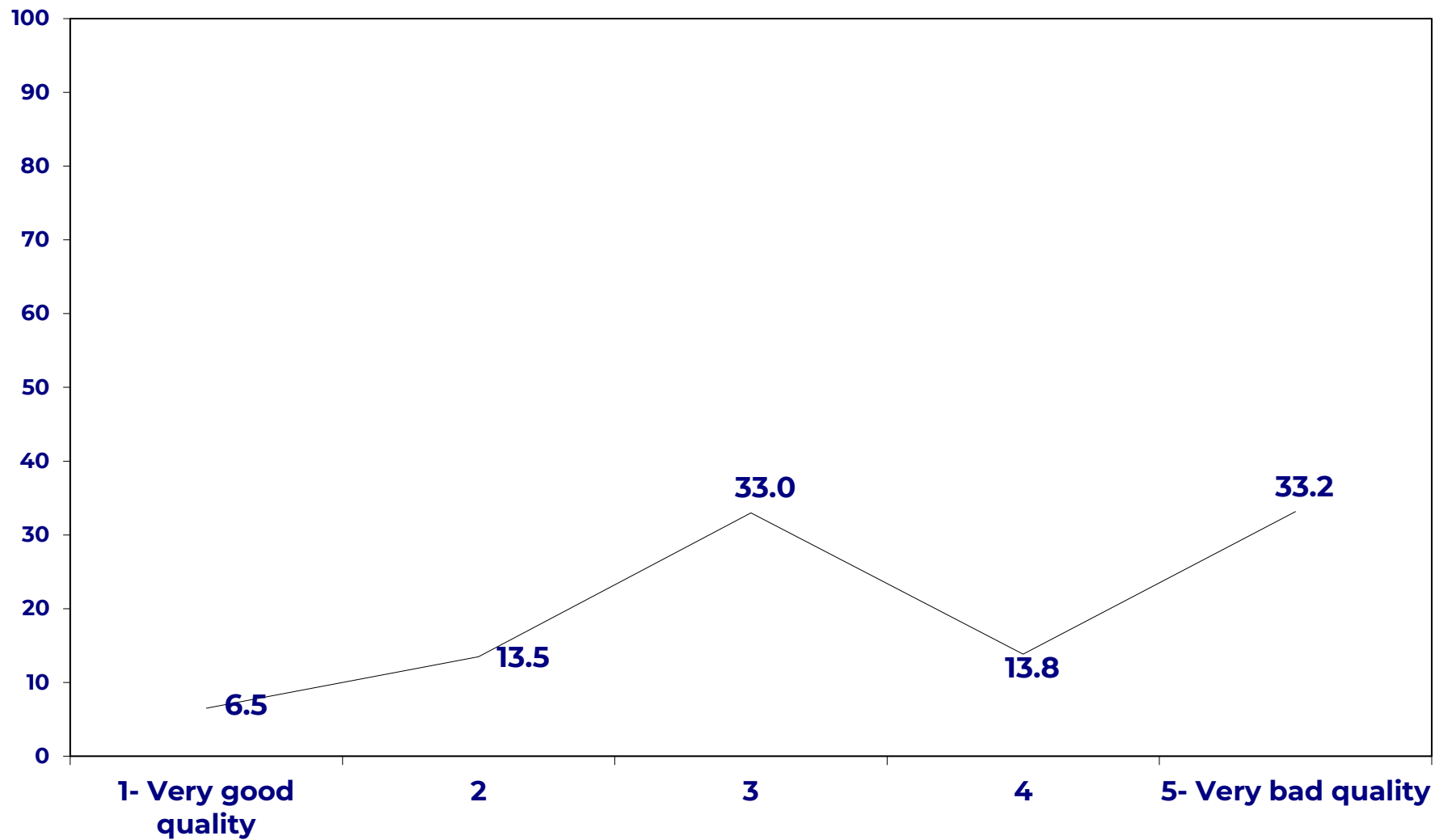
# Pressure of the water you receive through the WE network



## Source of water received through the WE network

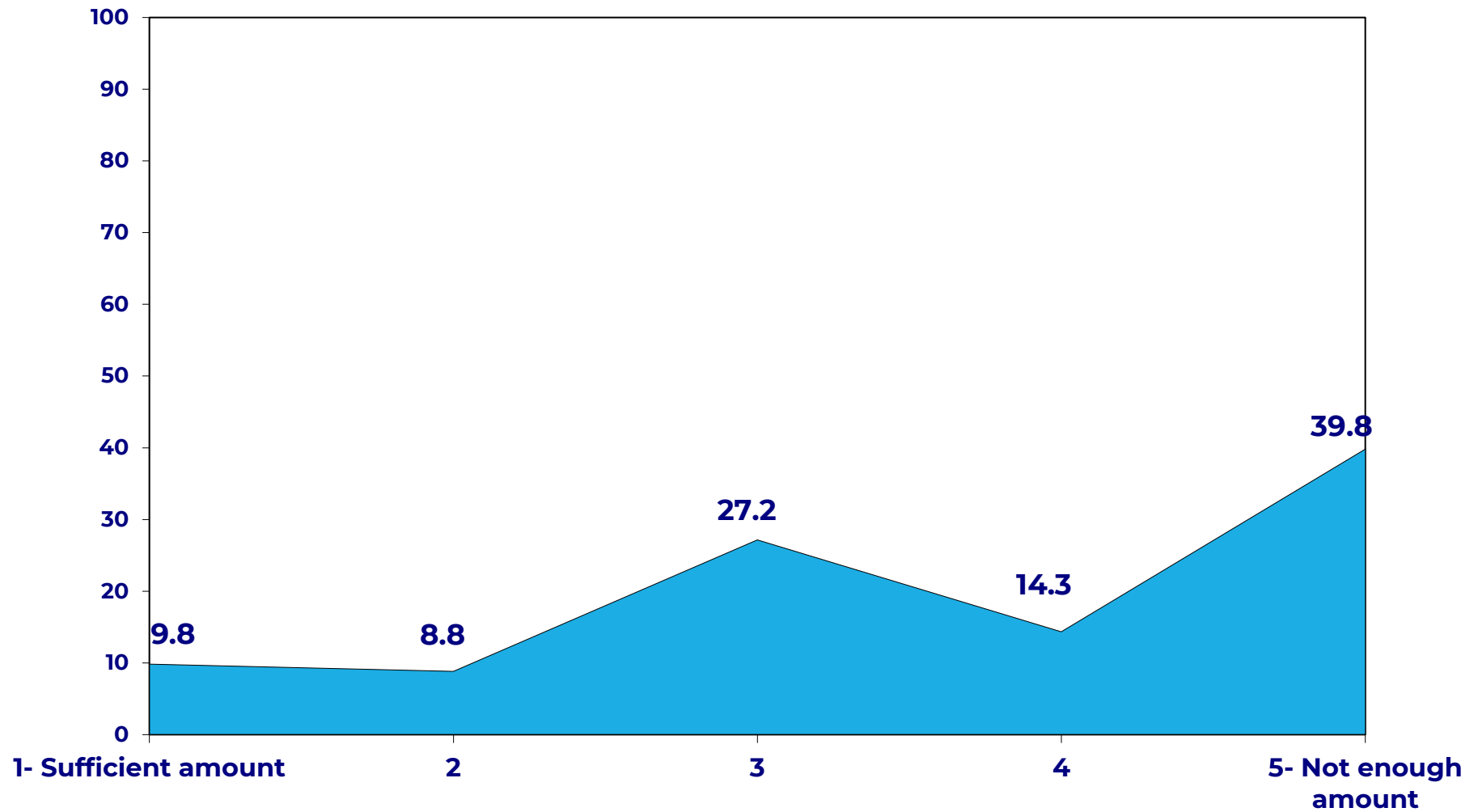


# Quality of water received through the WE network

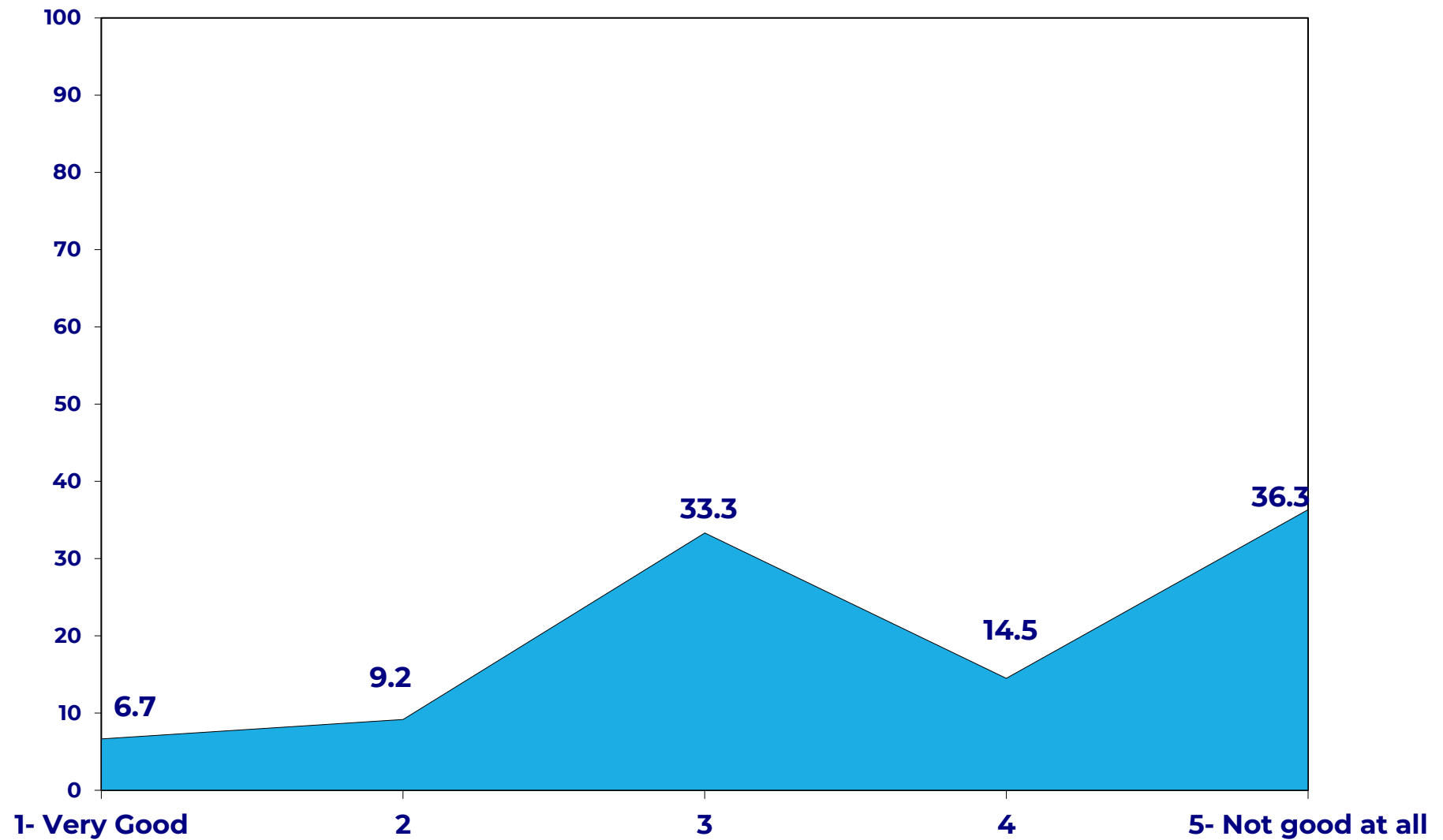




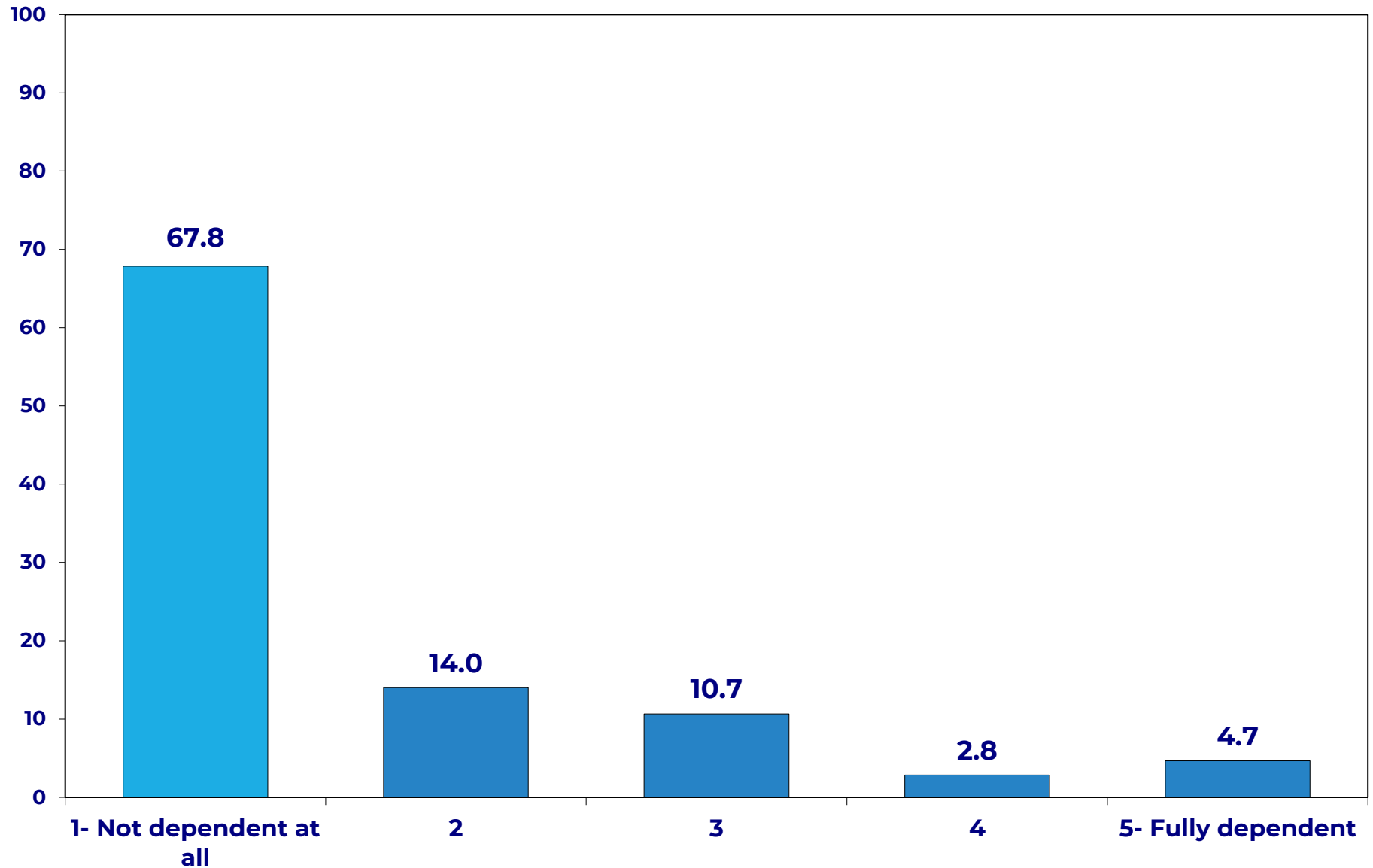
## Amount of water received through the WE network



# Reliability of the water received through the WE network



# Level of Trust in WE employees to resolve problems with public water supply





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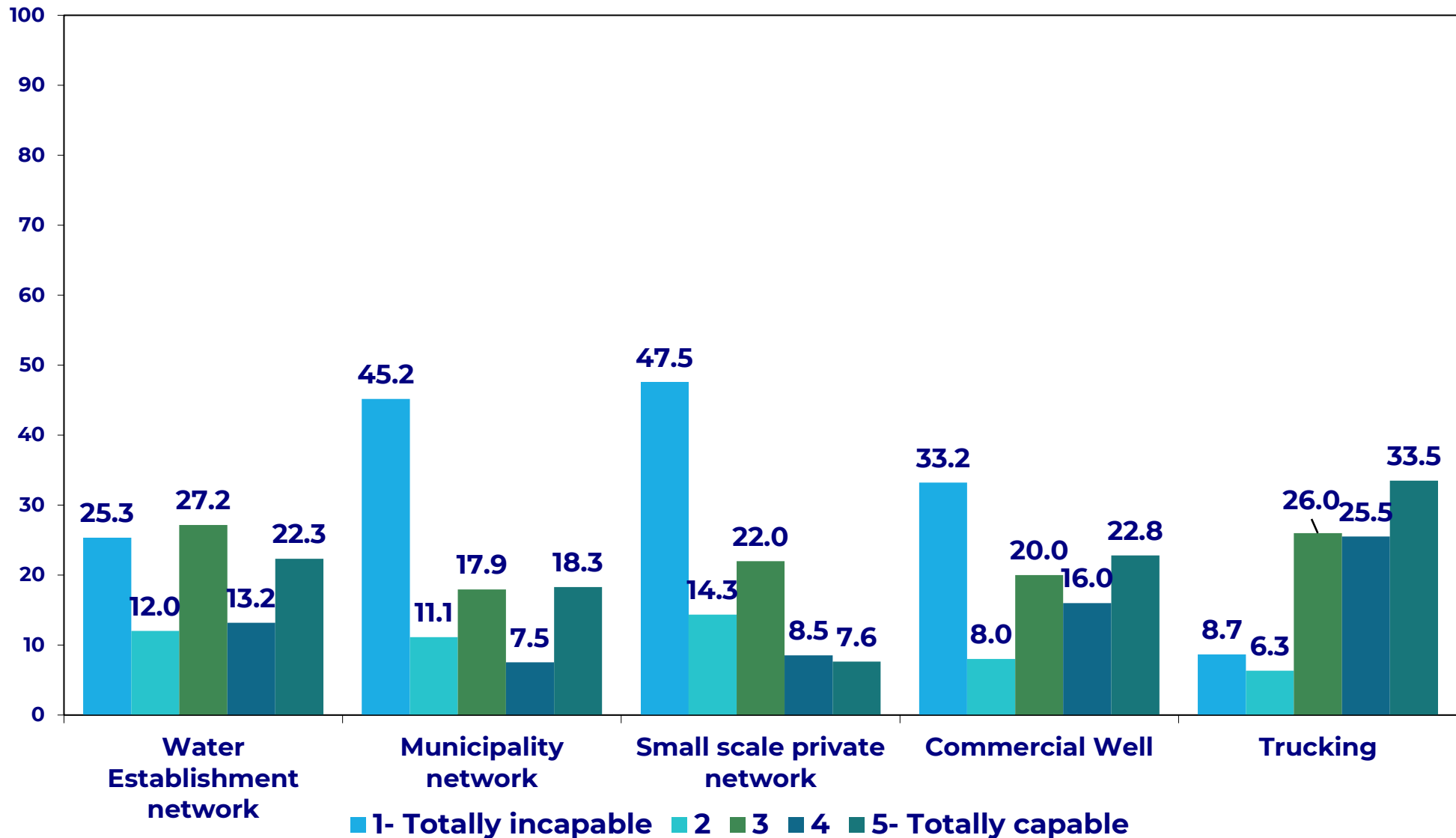


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## Various Water Sources' Capacity to Provide Water to Households

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# WE's Capacity to Provide Water to Households by Governorate

Water Establishment network	Beirut	Mount Lebanon	South	North	Bekaa	Baalbek-Hermel	Akkar	Total
1- Totally incapable	3.8%	0.0%	6.3%	<b>76.3%</b>	40.8%	12.5%	23.8%	25.3%
2	13.8%	12.5%	7.5%	13.8%	10.8%	13.3%	12.5%	12.0%
3	<b>55.0%</b>	<b>65.0%</b>	6.3%	2.5%	20.8%	31.7%	28.8%	27.2%
4	5.0%	12.5%	13.8%	2.5%	13.3%	22.5%	17.5%	13.2%
5- Totally capable	22.5%	10.0%	<b>66.3%</b>	5.0%	14.2%	20.0%	17.5%	22.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



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## Alternatives to Subscribing to Water Establishments

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Area	Suggested Alternative	Challenges
Beirut	Private commercial artesian networks	Salinity of water
	Water from cisterns	
Mount Lebanon	Private wells	Salinity of water
	Artesian wells	
Bekaa	Unauthorized resource use	drop in groundwater levels, further straining the already fragile water infrastructure
	Private wells/ buy disposable water for use	
South	Water from cisterns	Water Quality
	Private artesian wells	
Tripoli	Wells	Pollution and salinity
	Water from cisterns	
Akkar	Artesian wells	Contamination Risk, Impact on Surface Water, sinking of the ground surface, Interference with Neighboring Wells





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## Cooperation with Private Sector Companies as a Solution

# Attitudes towards water management vary significantly across different regions of Lebanon

Area	Cooperation with Private Sector Companies
Beirut	Lack of private-public cooperation in water management
Mount Lebanon	WE management should remain in the public domain; partnerships with municipalities
Bekaa	Privatizing the Water Establishment (WE) for effective monetary collection, distribution, and maintenance
South	Strengthening WE's capacity and minimizing reliance on the private sector
Tripoli	potential partnerships between local NGOs and private sector associations are seen as beneficial for community engagement and awareness-raising initiatives.
Akkar	Trust in private sector management of water networks: improve fee collection, maintenance, and subscription processes



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## Capacity to Pay based on New Revised Tariffs



Irrespective of the number of hours per day water would be provided to households (2, 6, 12 or 24 hours per day), the majority of respondents expressed their willingness to **pay 100,000-150,000 LBP per month** in return of this service.



Regarding **yearly subscriptions** based on monthly rates, the majority (around 84-86%) remained willing to pay, with the highest willingness for subscriptions of **6,600,000 LBP** (100%) and **1,800,000 LBP** (97.6% to 100%).



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## Conclusion



The majority of Lebanese households rely on the Water Establishment (WE) for their primary water source, with significant regional variations.



Irregular and insufficient water delivery is the primary barrier to subscribing to the WE network, followed by the high cost of subscription and poor water quality.



The perception of WE services is overwhelmingly **negative**.



There is a willingness to pay for improved water supply, particularly if it guarantees better quality and reliability. However, this willingness is tempered by the **financial constraints** faced by many households.



Urgent need for **comprehensive reforms in Lebanon's water sector to address issues of supply reliability, water quality, and customer trust**.



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## Recommendations



## **Improve Water Supply Reliability and Quantity:**

Invest in Infrastructure/ Enforce construction laws requiring building owners to install water meters in their buildings/ Increase Supply Hours



## **Address Affordability Concerns:**

Subsidization or Financial Support/ Transparent Billing and Pricing



## **Enhance Water Quality and Safety:**

Water Treatment and Monitoring/ Public Awareness Campaigns



## **Customer Service and Trust Building:**

Improve Responsiveness/ Build Community Trust



## **Implement Smart Meters**



## **Explore Public-Private Partnerships (PPP)**



## **Promote Responsible Water Use**



## **Policy Reforms**





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## Any Questions?