WaSH Sector
Lebanon

WaSH Sector Assessments Platform Simplified Report for 2023 Sweep

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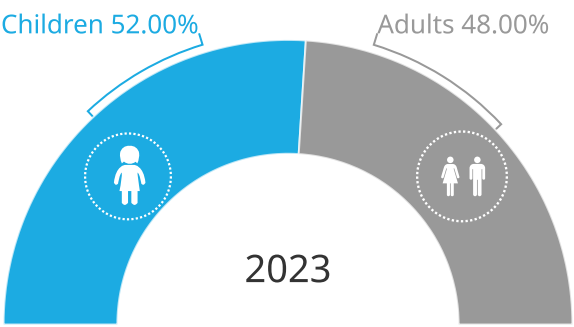
WAP at a glance

Number of Sites	Number of Individuals	Average Number of People per site	Average liter per capita per day of water trucking by NGO
5533	301,244	54.44	28.70



Percentage of Individuals Residing in ISs per Governorate

UNICEF acknowledge the cooperation of all the partners who contributed and supported the development of "WASH SITUATUIONAL ASSESSMENT REPORT 2023" including the members of Accion Contra El Hambre (ACF-Spain), Lebanese Red Cross (LRC), Lebanese Organization For Studies And Training (LOST), Norwegian Relief Council (NRC), Oxfam (OGB), Save the Children International (SCI), Solidarites International (SI), and World Vision Lebanon (WVi).

This report was made possible through the funding support of the United Nations Children's Funds (UNICEF)
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Background

The WASH Assessment Platform (WAP) was developed by Water sector partners in 2017 as a centralized digital dashboard to respond to nationwide WASH vulnerability in ISs in relation with real-time data from all WaSH agencies in Lebanon. This platform aims to highlight the key areas of WASH related intervention within the seven governorates in Lebanon that house ISs. The WAP allows implementing partners to access online data and business intelligence generated data interpretations to inputs of WASH field officers on the ground. In terms of emergency response and planning, the WAP has proven to be a critical sector-wide tool for highlighting the types of potential services required to influence day-to-day programme planning, decision making, and national response plans for 301,244 refugees in ISs. Additionally, it advises the monitoring and evaluation of current and past conditions in ISs. The WAP supports the WaSH actors to ensure the WaSH response in all ISs is systematically prioritized and targeted enabling the most effective utilization of any level of funding by:

- Defining which ISs are the most WaSH vulnerable and what specific factors contribute to this vulnerability;
- Through a weighted scoring system ranking all IS in an online live database;
- Enabling all partners to update the status of the ISs they are responsible for with new data that changes the vulnerability score;
- Evaluating the impact of targeted and prioritized WaSH activities after a period

Several criteria have been considered to evaluate vulnerability. Those criteria were defined based on the desired status of ISs to be independent. The Independence of an IS was defined as:

1. Safely managed drinking water (improved facility/facilities -located on-premises, available when needed, and free from contamination);
2. Safely managed sanitation (private improved facilities -where fecal wastes are safely disposed on-site or transported and treated off-site; plus, handwashing facilities with soap and water);
3. Appropriate hygiene behavior by its residents in the four critical areas of handwashing, menstrual hygiene management (MHM), safe water handling, and the safe disposal of excreta;
4. Households whose net income is sufficient to cover their basic needs for a dignified way of living in a displacement setting (affordable WaSH);
5. Negligible environmental, health or social impacts due to WaSH-related activities;
6. Low level of risk for the site to be evicted for any reason;

This tool is robust and straightforward. It enables agencies to prioritize and focus their intervention in the most in need sites as well as to tailor their response to provide the most significant impact. The agencies, having dedicated access online, can make automatic use of those data in their daily programming and decision making as well as can use this to inform their Monitoring and Evaluation plans and reports.

Methodology

The WAP consists of a series of sweeps that are carried out by all WASH agencies in Lebanon. By September 2023, the survey was run in 9,701 locations in which 5,533 sites were inhabited with an overall of 301,244 individuals, over half of which are children. It must be noted that 10 sites have refused to conduct the survey.

The standardized survey is used by all WaSH agencies in all available sites to prioritize site-specific WaSH interventions reflecting real-time conditions as opposed to a randomized sample technique.

Questionnaire

Each year, to ensure comparability, The WAP preserves, to a certain degree, the indicators used since 2017. The WAP questionnaire of 2023 was revised by the different agencies in charge of the assessment, notably during the WAP technical meetings. This revision ensures the most accurate measurement of indicators, appropriate wording of the questions. The questionnaire consists of 85 questions that collect information at the site level. The questionnaire includes critical indicators on social, water, sanitation, solid waste, and environmental situation of the sites. The WAP questionnaire is a site survey administrated with either the community representative of the site or any designated focal point. The questionnaire is conducted face to face with a site visit to ensure the visual inspection of the WASH facilities. This survey is taking a maximum of two hours for a more extensive site. Now, the agencies must ensure the questionnaire is updated in the entire site and in its area of coverage every four months. A new sweep will run at the end of every year.

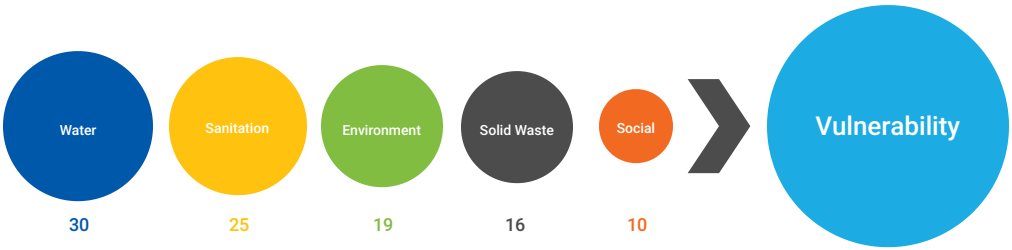
The WAP is currently undergoing a revision by different agencies to increase the granularity of the assessment at Household level for agencies having the capacity; and to qualitative data collected from different Knowledge, Attitude, and Practice surveys. Please scan the QR code to access the WaSH Sector Assessment Platform. You will find the questionnaire, scoring board, different training materials and previous reports.

Scoring

The vulnerability score is defined as a combination of social, water, sanitation, solid waste management, and environmental vulnerabilities. Those sectorial vulnerabilities are determined based on several indicators. The indicators, their calculation method, the respective weight to the sectorial, and overall site vulnerability are presented hereafter. For more details on formulas and scoring, check the link above (QR code)

Criteria	Sub-Criteria	Criterion	Criterion weight	Sub-criteria weight
Social	Special Needs	Female-headed households	0.75	3
		Children	0.75	
		Elderly	0.75	
		Physically Disabled	0.75	
	Community Structures	WaSH Structure	1	2
		Community Structure	1	
	Crowdedness	Crowdedness (distance)	1	3
		Crowdedness (density)	2	
	Seasonality	Seasonality (quantity)	1	2
		Seasonality (duration)	1	
Water	Access	Water Storage Capacity	3	15
		Source Type	12	
	Availlibity	Quantity when accessed	4	9
		Frequency of access	2	
		Seasonality	3	
	Quality	Fecal Coliform	4,5	6
		Turbidity	0,75	
		Nitrates	0,75	
Sanitation	Access	Latrine access (structures)	9	12
		Latrine access (expansion)	3	
	Wastewater Disposal	Grey Water Disposal	2	11
		Black Water Disposal	3	
		Desludging (frequency)	3	
		Desludging (seasonality)	3	
	Treatment	On-site treatment	2	2
Solid Waste	Storage	Waste Storage	6	6
	Handling	Collection Storage	3	10
		Collection Frequency	3	
		Cost Burden	4	
Environment	Vector	Insects	2	4
		Rodents, Snakes, ...	2	
	Cleanliness	Littering	2.5	5,5
		Open Defecation	3	
	Location	Proximety Hazards	5	9,5
		Flooding Percentage	2,5	
		Flooding Duration	2	

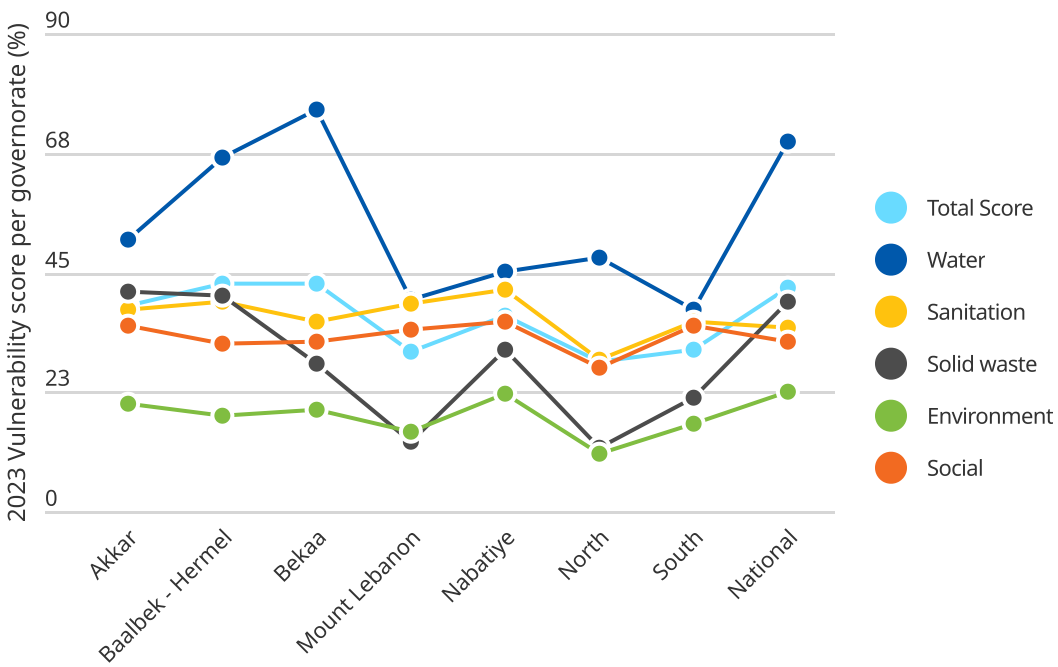
Vulnerability



The WAP Report 2023 estimates the vulnerability per governorate and highlights the types of potential services required to influence the day-to-day program planning, decision making and national response plans for the 301,244 refugees in the 5,533 ISs of Lebanon.
On average, the sites are hosting 54,4 people, with the consideration that 60.6 per cent of the sites are hosting an average of less than 30 individuals.

This graphic represents the contribution of the sectorial vulnerability criteria to the overall vulnerability per governorate in 2022. It showcases that the Bekaa governorate, housing 30 per cent of sites, faces severe vulnerability to water-related stressors at 86 per cent of ISs (a tremendous increase of 9 points compared to 2021).
Water vulnerability is dependent on water access, availability, and quality. In addition, the overall water vulnerability has increased across the three principal governorates hosting refugees due to energy crises reducing the capacity to rely on onsite sources.
Solid waste stressors are another major contributor to national stress, with three governorates presenting above the national vulnerability. Solid waste stress is influenced by storage and handling. The overall vulnerability has increased because of the reduction of storage facilities in the overall country.

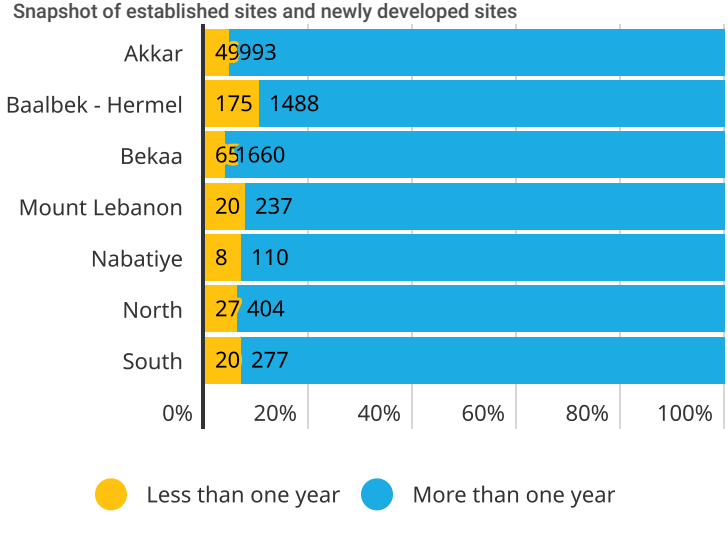
Lebanon nationwide vulnerability

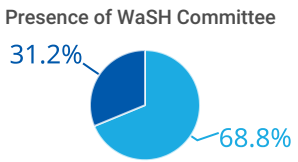


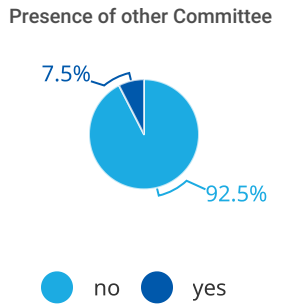
Social

In 2023, we are noticing only 7% of new sites created. The largest of created sites is in Baalbeck Hermel (175), then Bekaa (69) and Akkar (49).

Snapshot of established sites and newly developed sites





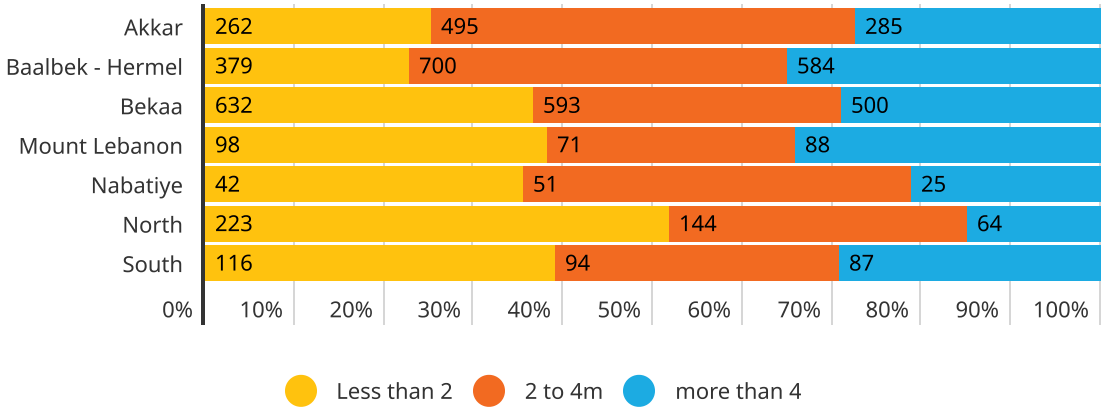


A Community WaSH Committee is present in less than 1/3 of the entire sites. Those committees are created and maintained in the most massive site settings. Having such representation of committees, mostly in larger sites, helps ensuring the operation and maintenance and timely referral for a good quality of the WaSH services. The WaSH Committees or Focal points facilitate the WaSH services provision for a bit less than half of the refugee population living in ISs. The governorate with the most significant presence of CWC is the Bekaa with 49.5% of the sites having a WaSH committee or focal point.

The other committees and community structures such as the Collective Site Management and Coordination (CSMC) or others are present in solely 7.5 per cent of the sites over Lebanon . The three governorates with the most significant committee structures (not WaSH) are the North (44%), Akkar (9%), and Bekaa (6%).

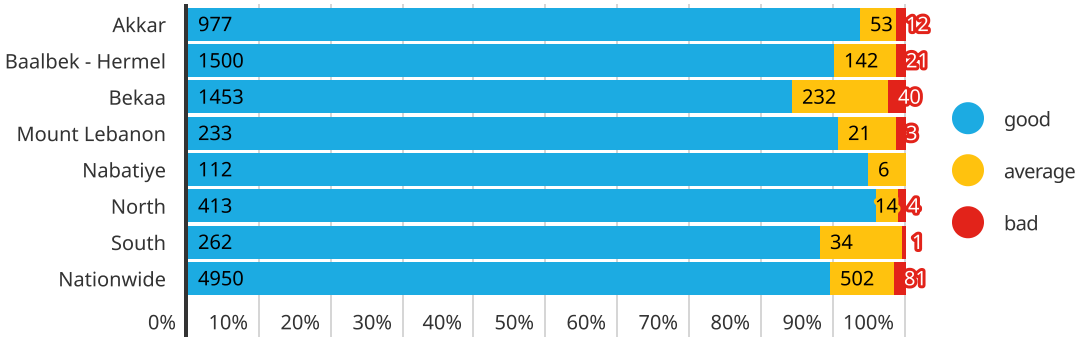
Distance between shelters

across the country, the governorate of the North has the highest representation of the highly dense settings as 51 per cent of the sites have shelter less than 2m apart. The figure below presents the reparation of the distance between dwellings per governorate.

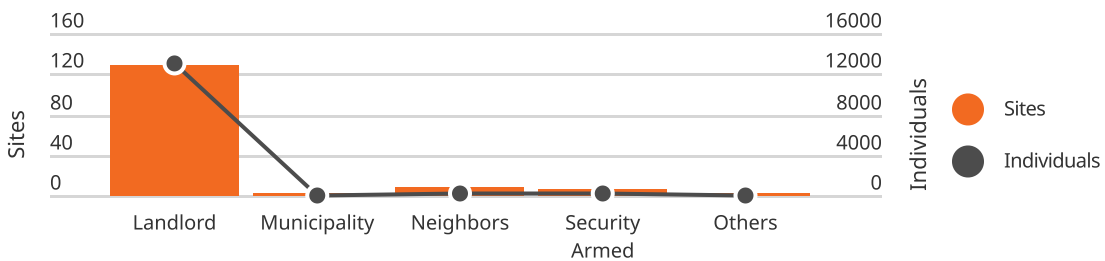


Social

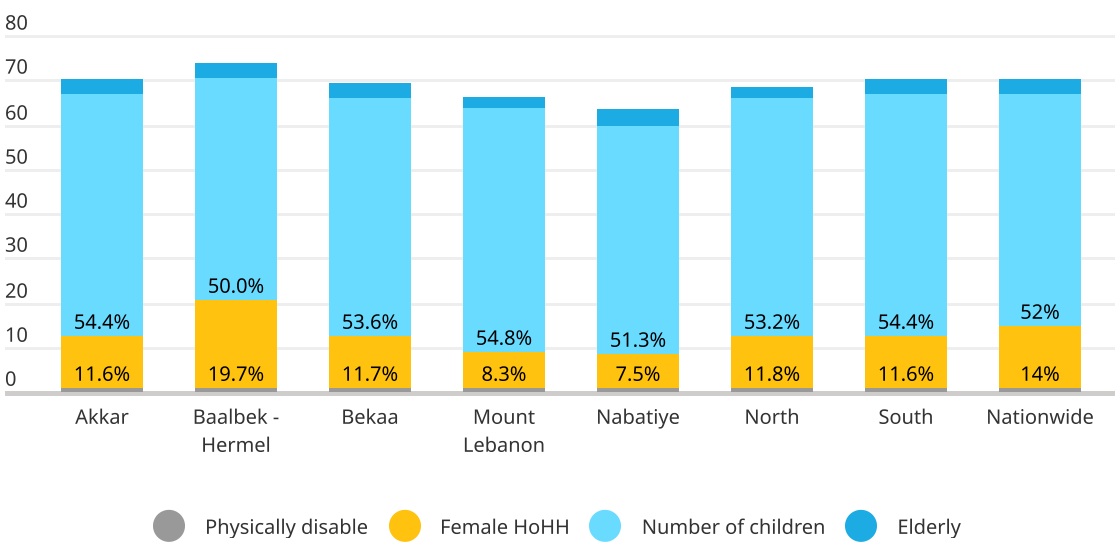
Ninety per cent of sites, hosting 88 per cent of refugees, have declared a good relationship with their landlord. Meanwhile, slightly over 9 per cent of sites, housing over 10% of the population, have reported average conditions. Only 1.46% of sites, hosting 2% of refugees in ISs have reported bad relations with their landlords.



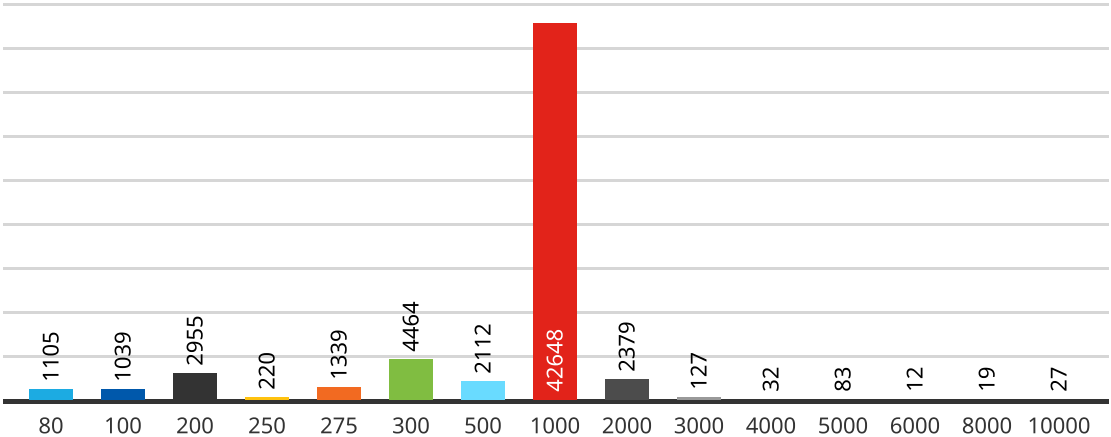
The risk of eviction from landlords has decreased compared to last year (151 sites hosting 14,820 individuals). This trend is also similar for the eviction notice received from neighbors, Lebanese Armed Forces, or municipalities.



Percentage of vulnerable people in 2023



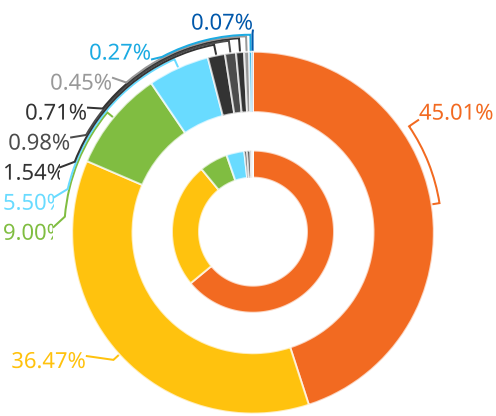
Water storage volume



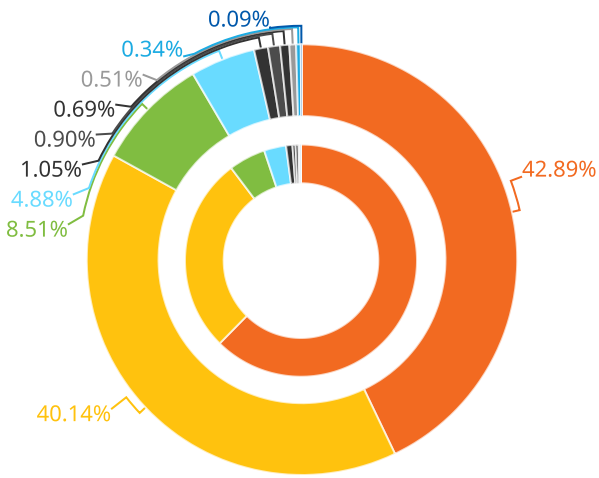
The most common type of water storage container is the 1000 litres tanks, with 42,648 tanks (1,791 tanks less compared to 2022 and 2,357 tanks less from 2021). The average water storage volume is 170 L per person.

Primary source of water

This year NGO partners have been able to reduce the dependency on water trucking paid for by NGOs by increasing the connection to private protected boreholes. The dependency on Water trucking paid for by NGO as decreased in 146 sites hosting 12,161 individuals. The graphs below present the distribution of the primary source per type and their repartition per site on the outer circle when the inner one presents its associated number of individuals.



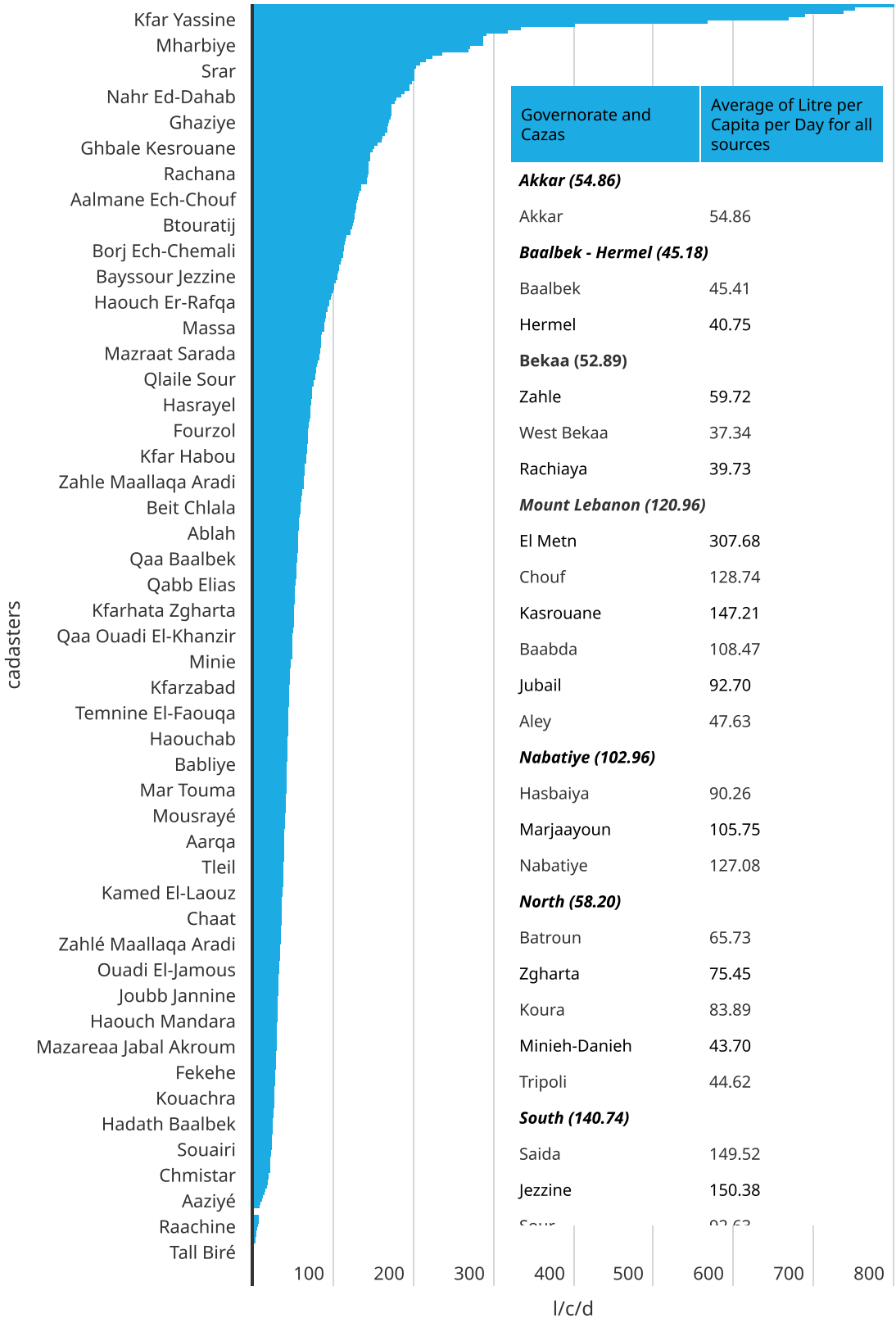
2022 data



2023 data

Water trucking paid by NGO · Protected borehole · Public network reservoir · Water trucking paid by residents · Irrigation drainage channel · Unprotected borehole · Protected spring · Unprotected spring · River · Lake

2022 data



Governorate and Cazas	Average of Litre per Capita per Day for all sources
Akkar (54.86)	
Akkar	54.86
Baalbek - Hermel (45.18)	
Baalbek	45.41
Hermel	40.75
Bekaa (52.89)	
Zahle	59.72
West Bekaa	37.34
Rachiaya	39.73
Mount Lebanon (120.96)	
El Metn	307.68
Chouf	128.74
Kasrouane	147.21
Baabda	108.47
Jubail	92.70
Aley	47.63
Nabatiye (102.96)	
Hasbaiya	90.26
Marjaayoun	105.75
Nabatiye	127.08
North (58.20)	
Batroun	65.73
Zgharta	75.45
Koura	83.89
Minieh-Danieh	43.70
Tripoli	44.62
South (140.74)	
Saida	149.52
Jezzine	150.38

Water Quality

96% of the Water sources have been tested. The table below presents the number of sites where the water sources are compliant or contaminated based on the presence of fecal coliforms, turbidity, and Nitrate concentration. 63% of the overall sites show that the main water source is safe for drinking based on the previously mentioned parameters. 44% of the sites resorting to Water trucking paid for by residents has safe drinking water this is better than last year when none of those sites were having safe drinking water. Water trucking paid for by NGO remain predominantly safe (87%) as the NGOs are ensuring chlorination of the tankers and monitors the source of the water used for trucking. Many protected boreholes would need additional water treatment as 45.5% show contamination with Fecal Coliforms. 66% of sites connected to networks have access to safe drinking water.

Main Source	irrigation & drainage channels	lake	protected borehole	protected spring	public network	river	unprotected borehole	unprotected spring	wate truck paid NGO
Safe Water	10	1	947	19	301	7	20	16	2066
NTU Contamination	9	1	114	1	11	1	2	4	1
NO3 Contamination	0	0	305	4	25	0	9	3	235
FC Contanimatuion	8	2	956	14	131	12	25	6	73
Distribution of	50	5	2100	39	457	20	58	28	2373

The map on the side presents the different Nitrate concentrations for the different onsite sources. Similar to last year, we can still notice that the two areas are presenting large contamination with Nitrates:

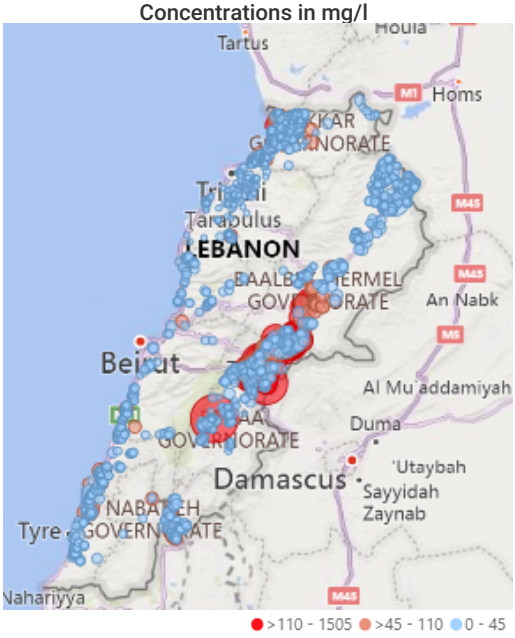
i) Sahel Akkar

ii) From Zahle to Serrain et Tatha south Baalbeck governorate.

Those two areas are largely agricultural places which could be the main reason for having such elevated levels of pollutant in the water. In those sites, on-site water treatment can be challenging due to the high chemical contamination not allowing efficient treatment from Ultrafiltration.

Maps of Nitrates concentration in NO_3

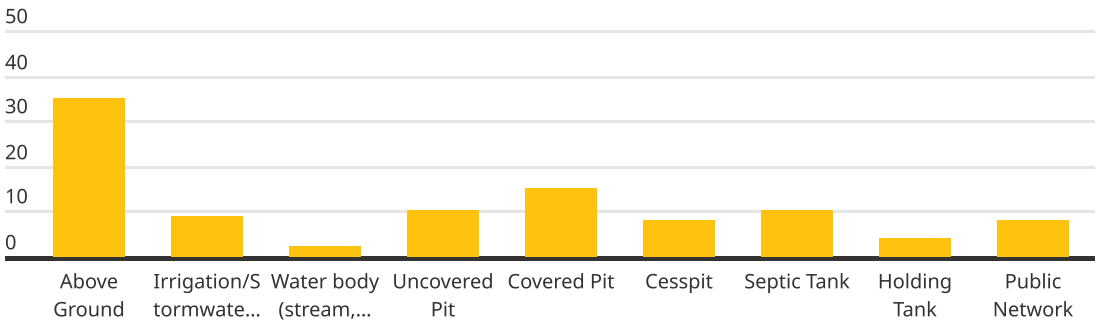
Concentrations in mg/l



Sanitation

Greywater management

Most of the shelter (35%) are discharging the greywater above ground. This number has increased compare to 2022 (32%). The remaining shelters are mostly managing the greywater in a similar type of containment as the blackwater. The connection to holding tanks 4% (1,693) of the tents increase largely the desludging frequency tremendously. Many tents connected to a holding tank for grey water discharge (84.1% or 1424) are in the Bekka governorate.



User interface

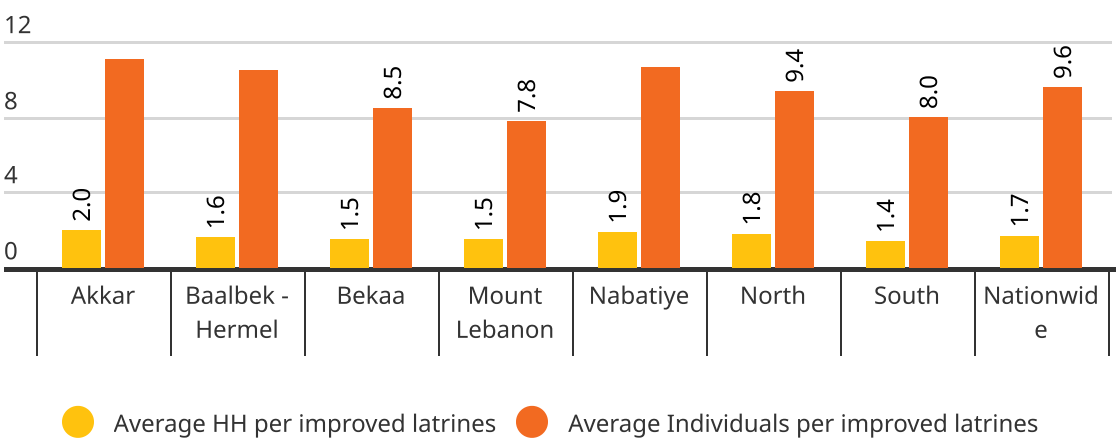
Three hundred sixteen people living in twenty-eight sites across the country do not have access to any, even unimproved sanitation facilities on their site. It represents a negligible percentage of the population still it's a betterment of the overall sanitation situation compared to the 512 individuals in 47 sites without any latrines in 2022.

In the figure below, we can find the average number of people per latrine or user interface. The southern governorate has the best coverage of toilets per person and household.

Governorates	Number of sites	Number of individuals
Akkar	1	32
Baalbek - Hermel	15	180
Bekaa	2	13
Mount Lebanon	3	18
Nabatiye	5	59
South	2	14
Nationwide	28	316

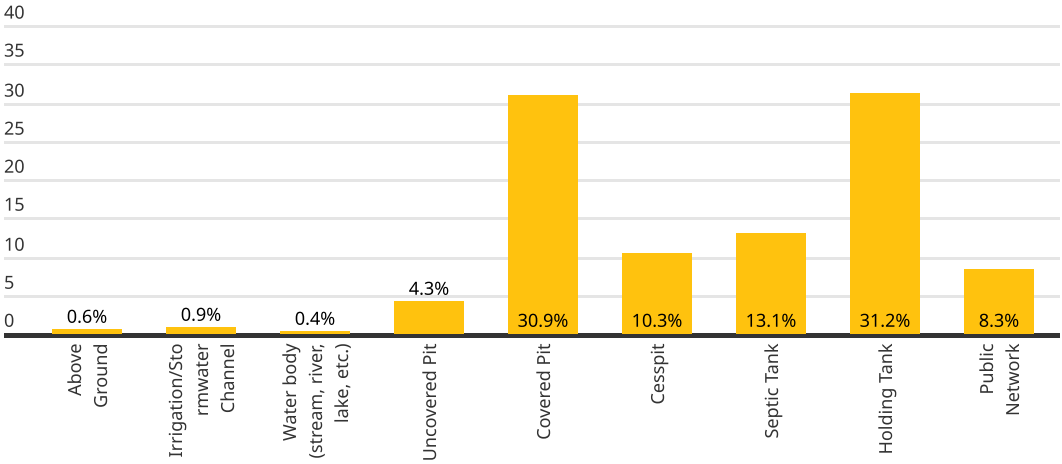
The governorate of Akkar is the one with the highest number of persons and families per latrine having on average one improved and usable latrine shared by 11.1 individuals and two households.

The overall number of latrines improved and useable has reduced of 1,761 from 2022. Looking at the overall number of latrines, this total only reduced of 681 latrines compare to 2022. This shows that the overall number of infrastructures is slightly stable between 2022 and 2023, and that the trend of selling infrastructure identified in 2022 stopped. But the maintenance of the superstructure has not been properly transferred to the ISs residents, reducing the number of improved and useable latrines in the country.

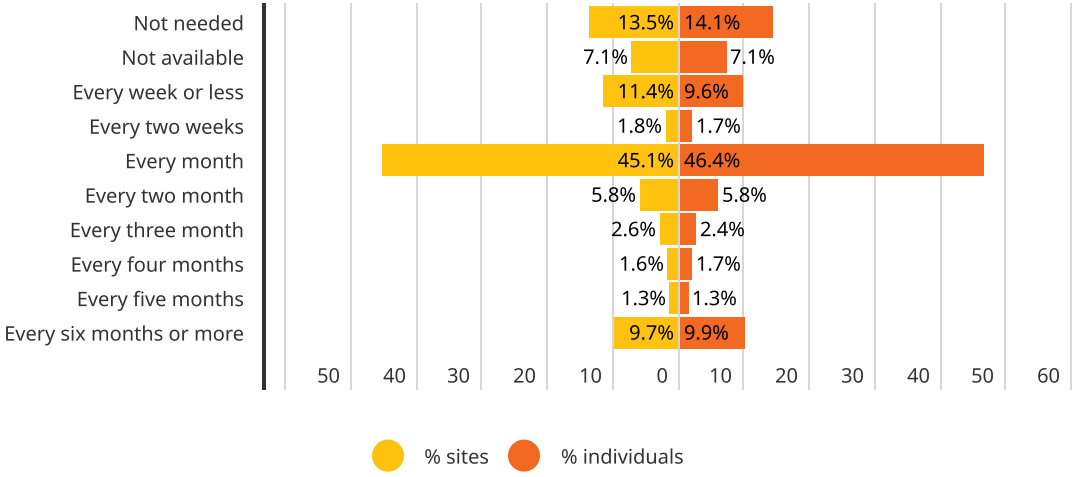


Sanitation

% of the number of latrines connected to the different containment types



Desludging Frequency : Desludging frequencies, repartition per sites and associated population in 2023

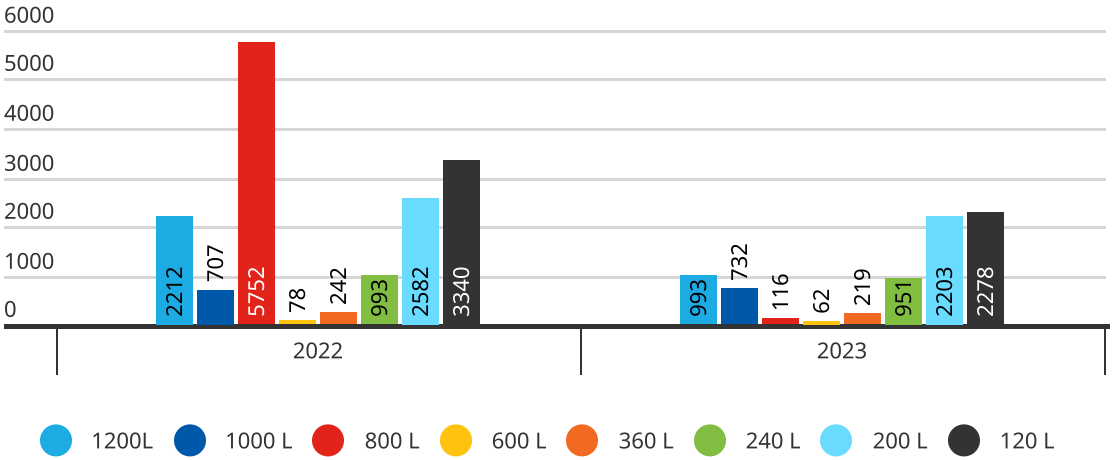


The most significant containment represented around the country is the covered pit and the Holding tanks. The latest, being sealed to avoid any wastewater spill to the environment, is the one amounting to one of the highest desludging frequencies with 10,579 latrines (80% of latrines connected to holding tanks) connected to holding tanks desludged monthly or less. A lot of cesspits also need desludging on the same frequency. This amounts to 8756 latrines (or 21% of restrooms in the country) needing desludging from every week or less to every month.

In parallel, it must be noted that the Ministry of Energy and Water prevented the planned installation of the onsite wastewater treatment plant enabling the reduction of the desludging needs. This is having a significant impact at a time when it's more and more challenging to secure funds to provide WaSH services to ISs.

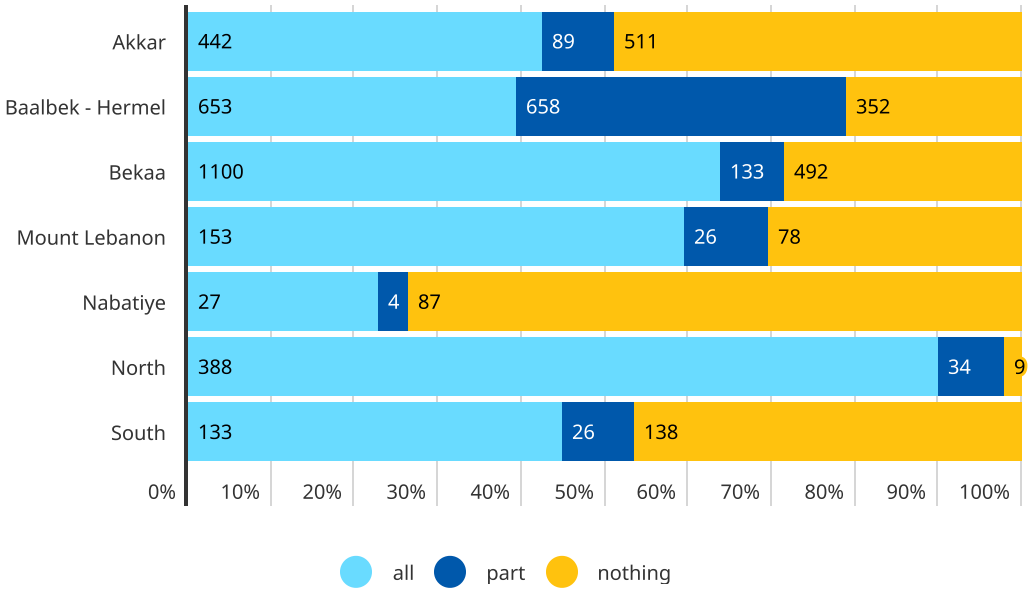
Solid Waste

All over ISs, there has been a tremendous reduction in the quantities of Solid waste containers available in, or dedicated for Informal settlements. This is the result of several years of reduced or non intervention from WaSH partners in Solid Waste field. Large dumpsters (600 - 1200L) originally dedicated to the solid waste containment of ISs are now shifted to the entire community, and ISs residents still continue to cope to a difficult financial situation by selling their assets.



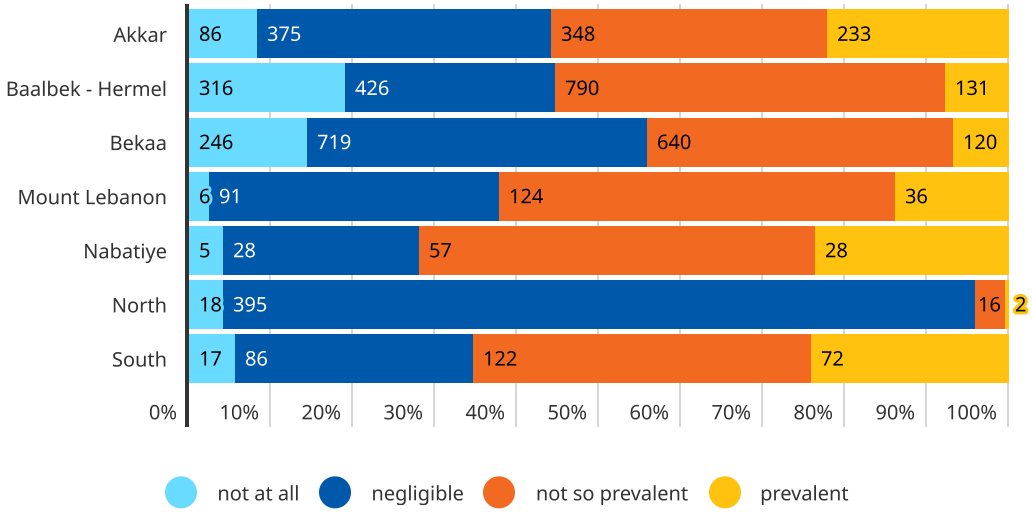
On average, 69.9 percent of the refuse produced in ISs are collected (totally or partially). There is a considerable disparity nationwide when it comes to solid waste management (SWM). The North is the governorate where solid waste is the most collected, with 98 percent of the refuse generated by the people living in ISs being totally or partially collected. Nabatiye is the governorate with the worst solid waste management for ISs, as only 26 percent of the refuse is collected. This is 6 points less then 2022.

Collection of solid waste per governorate



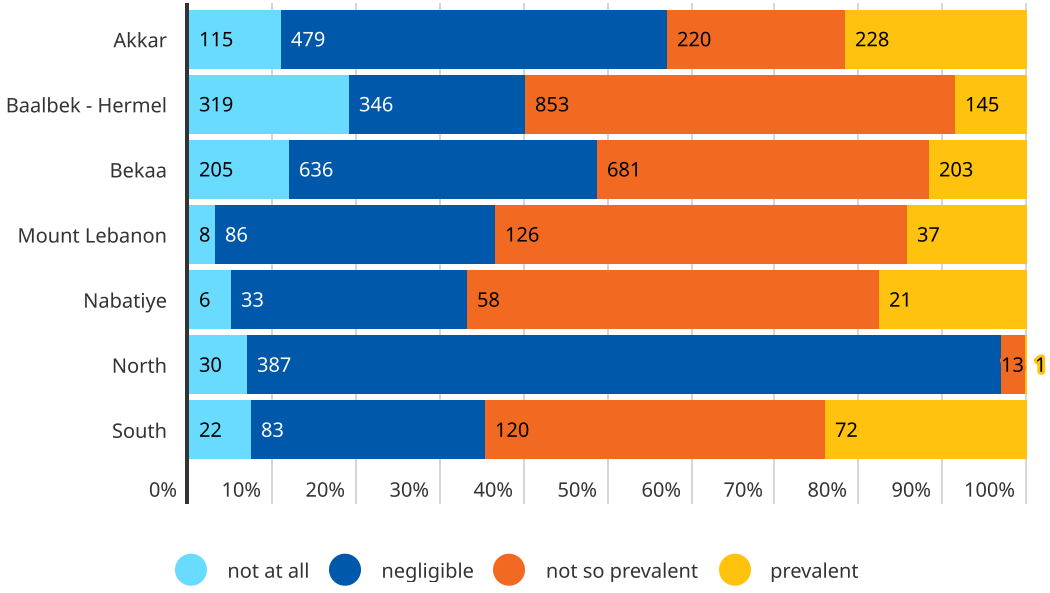
Environment

Insects



The graph above presents the percentage of sites declaring having issues with insects. Eleven percent of the sites are stating having a problem with insects (augmentation of 1 point from 2022).

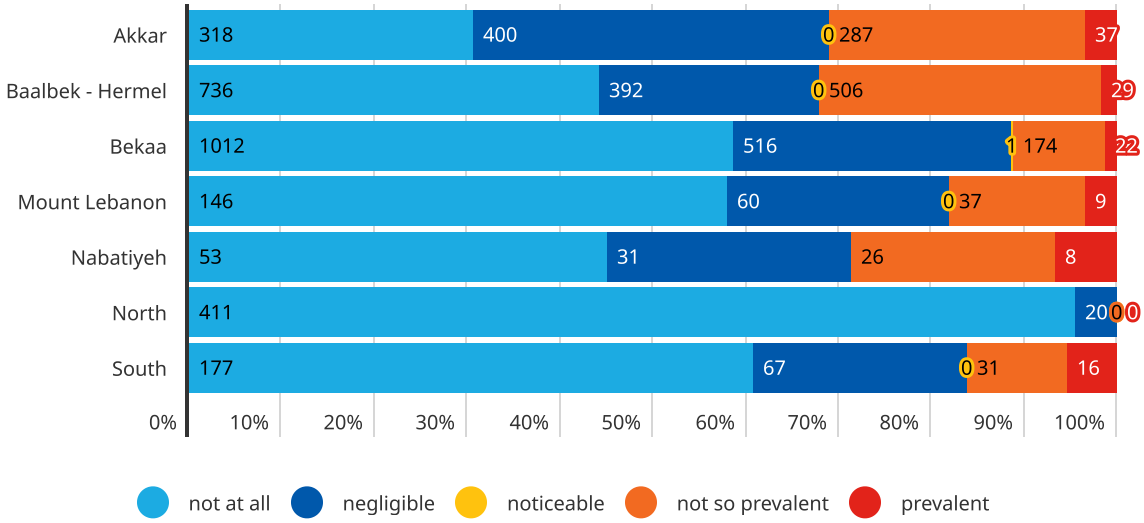
Rodents



Regarding the problem of rodents, the repartition of sites is similar to the ones reporting issues with insects. The national average is that 13% of sites are declaring having an issue with rodents on their sites.
The governorates with the most significant representation problem of rodents are South with almost 24.2% of the sites (88 sites) and Akkar with more than 22% of its sites (227 sites).

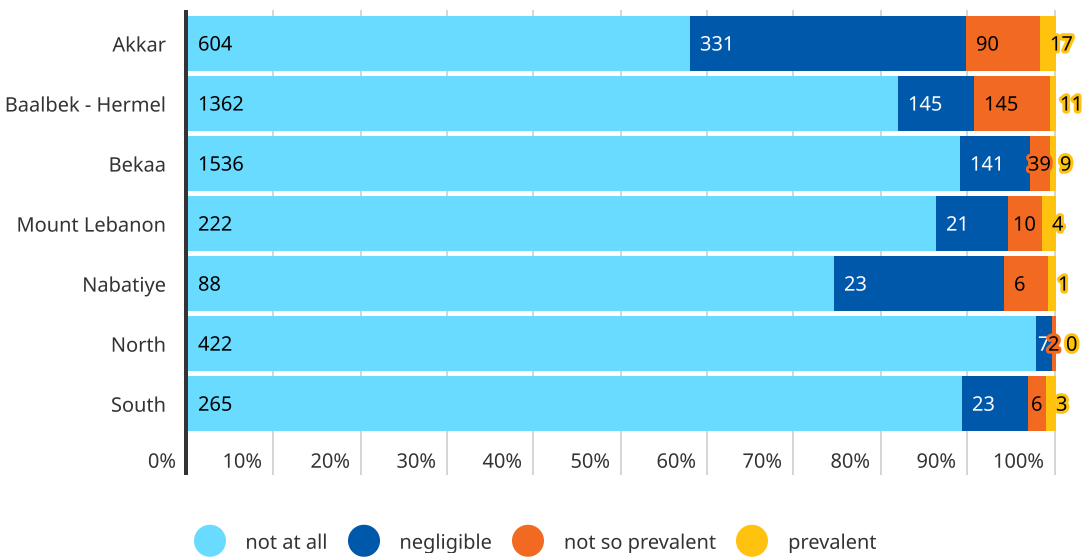
Environment

Littering



We can see in the overall country that most of the sites doesn't report issues of littering. The number are slightly stable compared to 2022. This could be directly linked to the reduction of the presence of small bins as presented in the solid waste section. It must also be noted that the North governorate is not having any problem of littering.

Open defecation



Open defecation is relatively rare across the country. It's prevalent in 45 sites only across the country (it increased from 11 sites in 2023). It's absent or negligible in 94 percent of the sites. Even if the number of latrines is decreasing this seems not to affect the presence of open defecation on site.