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WaSH Sector
Lebanon

WaSH Sector Assessment Platform Simplified Report for 2022 Sweep

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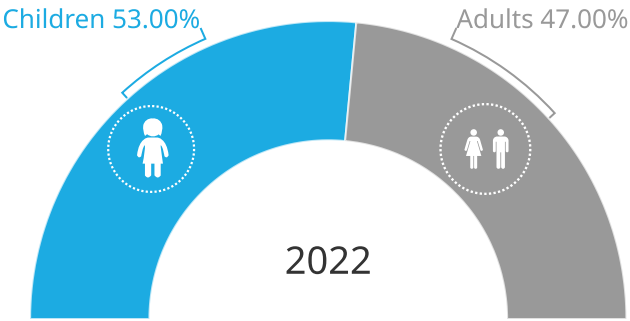
WAP at a glance

Number of Sites	Number of Individuals	Average Number of People per site	Average liter per capita per day
5597	312,531	55.84	63.80



Percentage of Individuals Residing in ISs per Governorate

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How to Cite this Report? (WAP 2022)

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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 312,531 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 June 2022 , the survey was run in 9,558 locations in which 5,597 sites were inhabited with an overall of 312,531 individuals, over half of which are children. It must be noted that 33 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 2022 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.

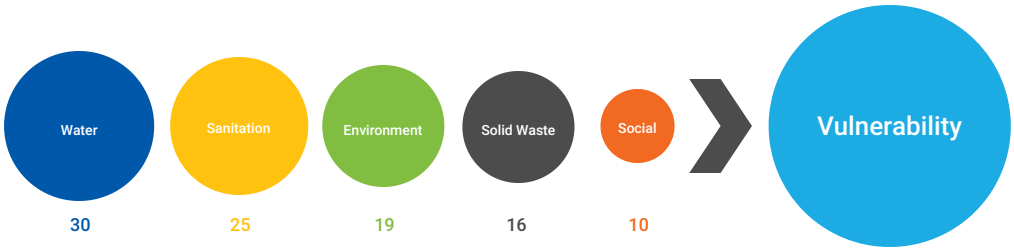
The WAP is currently undergoing a revision by different agencies to increase the granularity of the assessment at Household level for agencies having the capacity; and to qualitative data collected from different Knowledge, Attitude, and Practice surveys. Please scan the QR code to access the WaSH Sector 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)

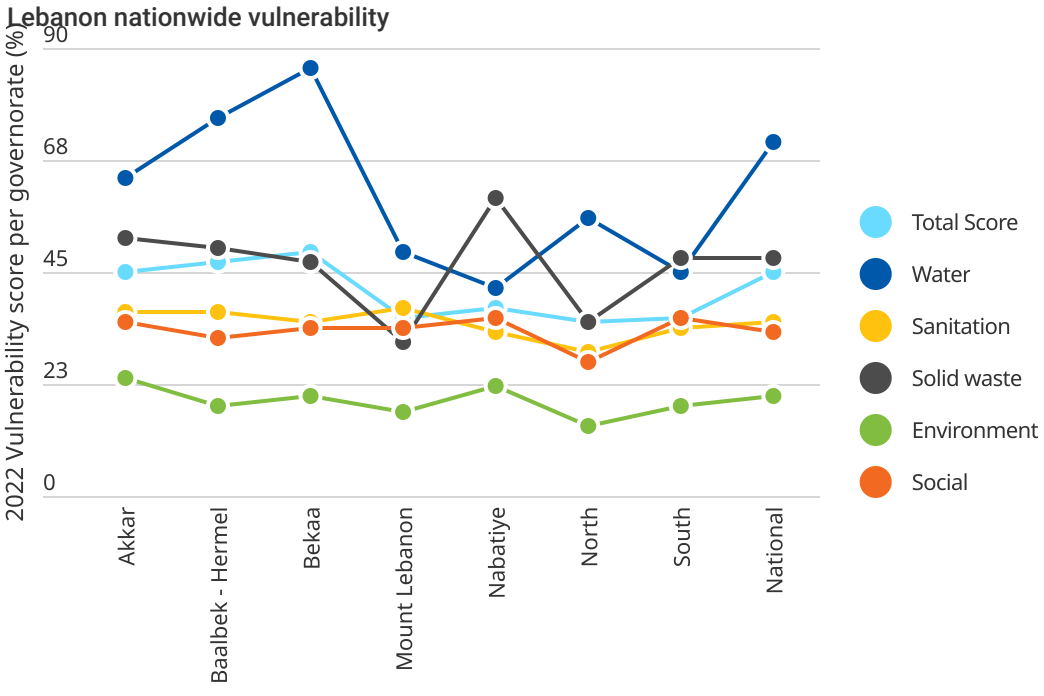
Criteria	Sub-Criteria	Criterion	Criterion weight	Sub-criteria weight
Social	Special Needs	Female-headed households	0.75	3
		Children	0.75	
		Elderly	0.75	
		Physically Disabled	0.75	
	Community Structures	WaSH Structure	1	2
		Community Structure	1	
	Crowdedness	Crowdedness (distance)	1	3
		Crowdedness (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 2022 estimates the vulnerability per governorate and highlights the types of potential services required to influence the day-to-day programme planning, decision making and national response plans for the 312,531 refugees in the 5,597 ISs of Lebanon.
On average, the sites are hosting 56 people, with the consideration that 58 percent of the sites are hosting an average of less than 30 individuals.

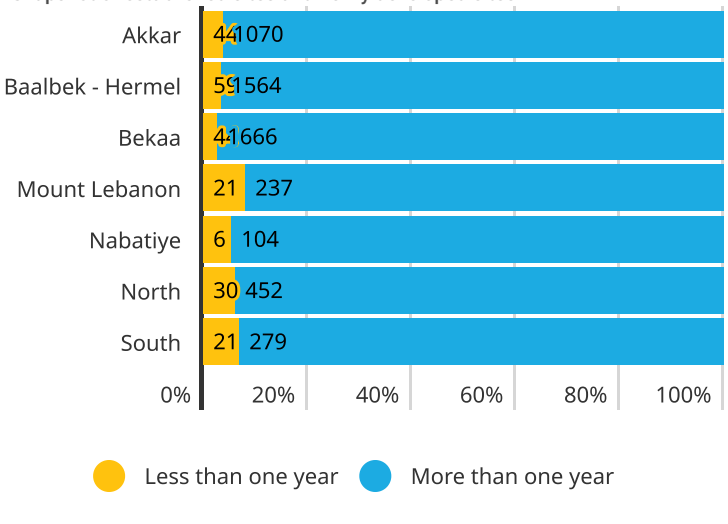
This graphic represents the contribution of the sectorial vulnerability criteria to the overall vulnerability per governorate in 2022. It showcases that the Bekaa governorate, housing 30 per cent of sites, faces severe vulnerability to water-related stressors at 86 per cent of ISs (a tremendous increase 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.

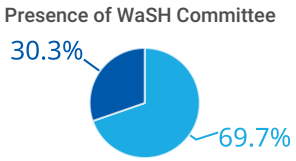


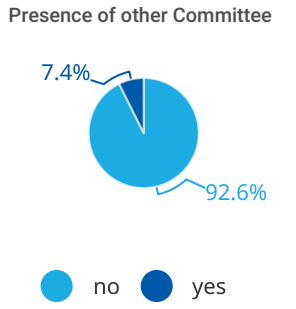
Social

In 2022, we are noticing only 4% of new sites created. The largest of created sites is in Baalbeck Hermel (59), then Akkar and Bekaa (44).

Snapshot of established sites and newly developed sites





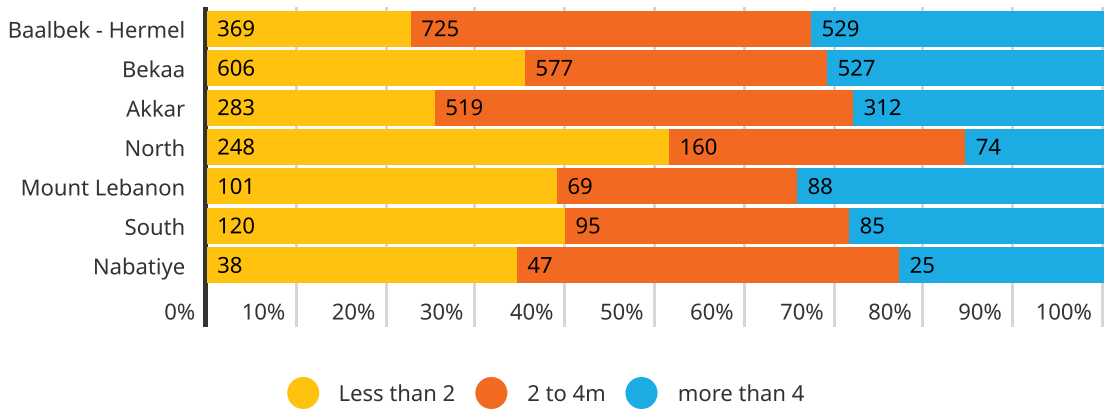


A Community WaSH Committee is present in less than 1/3 of the entire sites. Those committees are created and maintained in the most massive site settings. Indeed, it makes sense to have such representation to ensure the operation and maintenance and timely referral for a good quality of the WaSH services. 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 North with 67,3% percent of the sites.

The other committees and community structures such as the Collective Site Management and Coordination (CSMC) or others are present in solely 7.4 per cent of the sites over Lebanon . The three governorates with the most significant committee structures (not WaSH) are the North (45%), Akkar (9%), and Bekaa (3%).

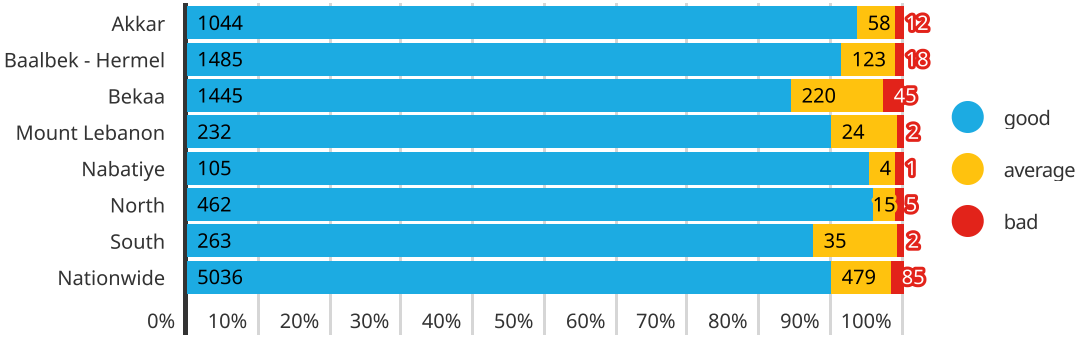
Distance between shelters

across the country, the governorate of the North and the South have the highest representation of the highly dense settings at 51 and 40 percent living less than 2m apart. The figure below presents the reparation of the distance between dwellings per governorate.

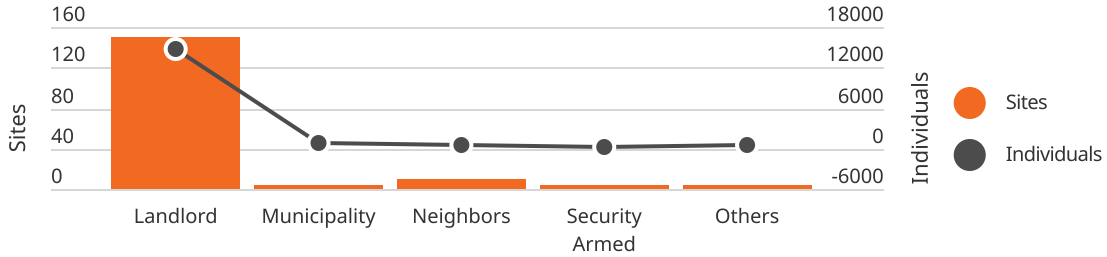


Social

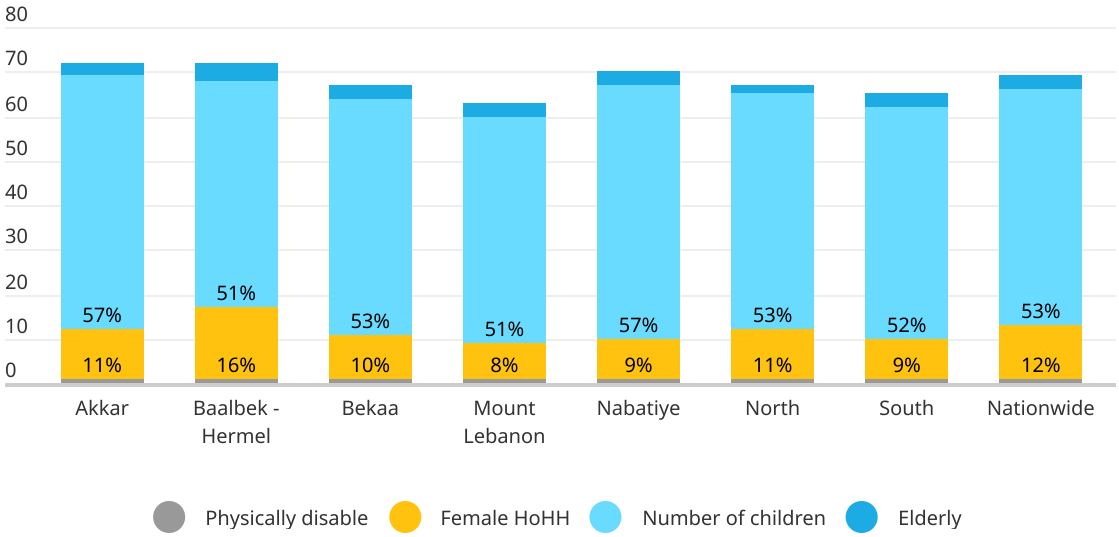
Ninety per cent of sites, hosting 88 per cent of refugees, have declared a good relationship with their landlord. Meanwhile, slightly over 8.5 per cent of sites, housing over 10% of the population, have reported average conditions. Only 1.52% of sites, hosting 2% of refugees in ISs have reported bad relations with their landlords.



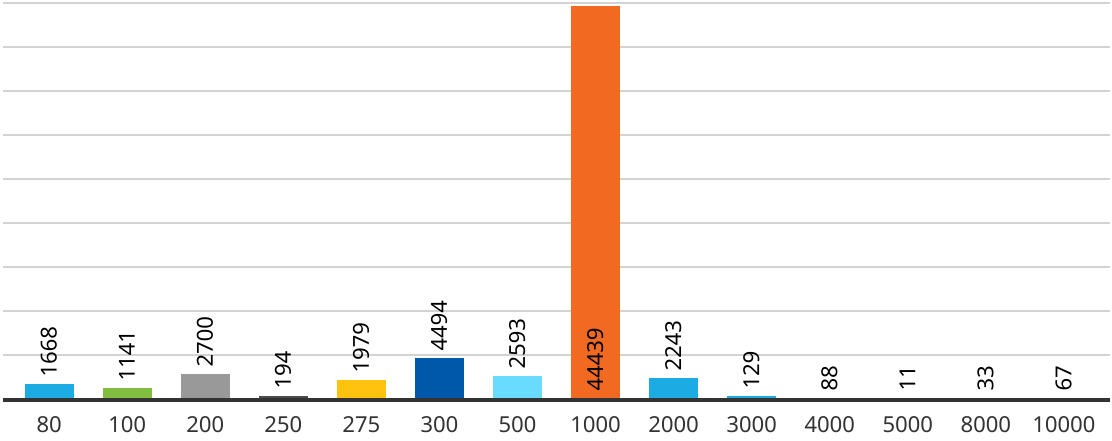
The risk of eviction from landlords has increased and taken the largest proportion of the eviction notice. This results from the current financial crisis. The landlord not able to get the same rental charges as before are more reluctant to continue hosting the Syrian refugees on their lands. Also, it must be noticed that the threat from Neighbours has increased tremendously.



Percentage of vulnerable people in 2022



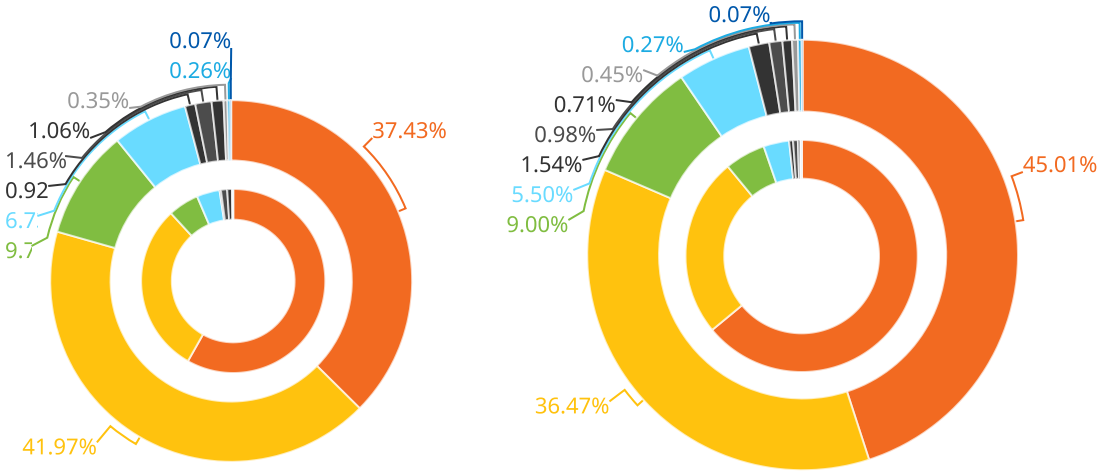
Water storage volume



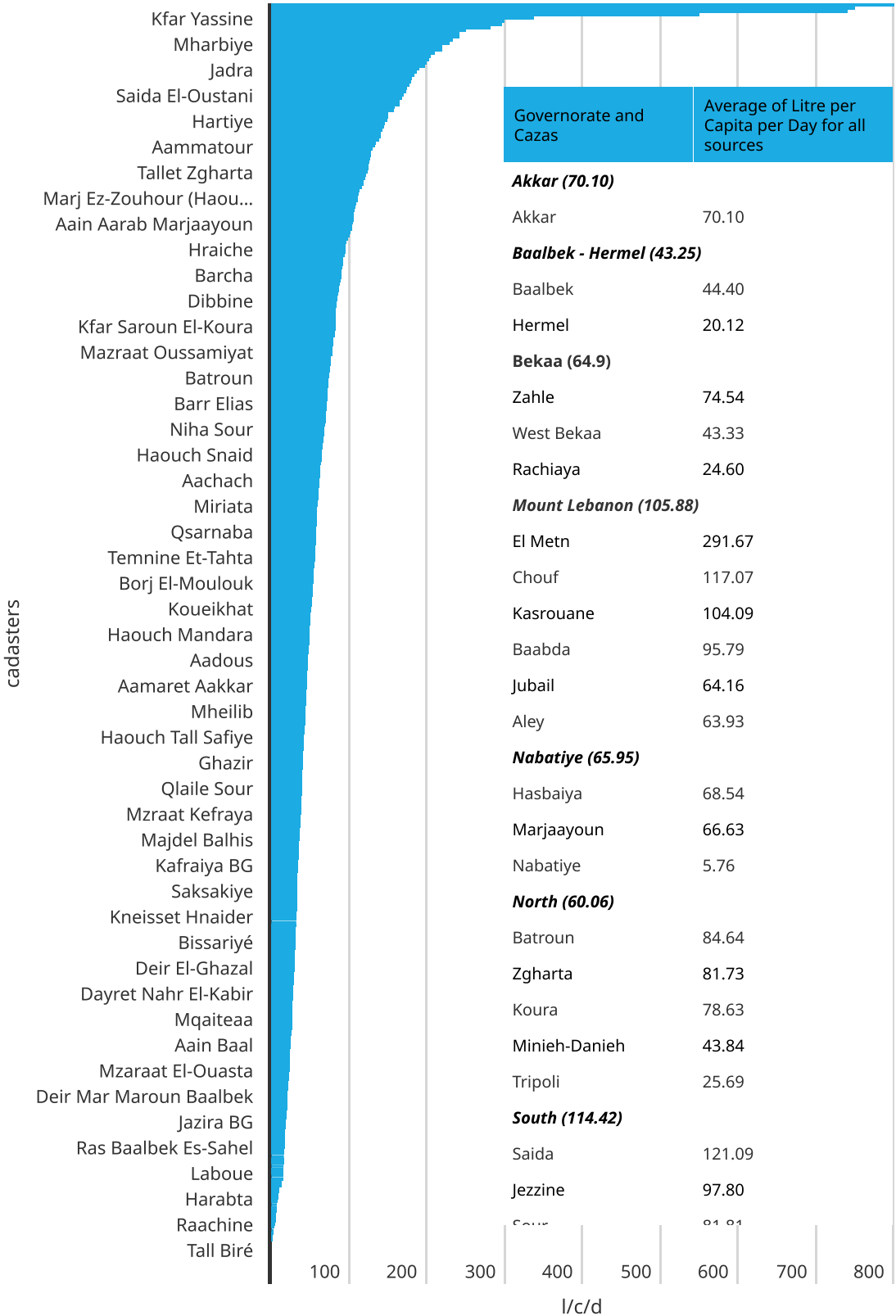
The most common type of water storage container is the 1000 liters tanks, with 44,439 tanks (566 tanks less than 2021. The average water storage volume is 175 L per person.

Primary source of water

The current Energy crisis is increasing the dependency of sites on water trucking as it reduces the possibility of production of onsite sources. In 2022, 428 informal settlements and 15,000 individuals became dependent on water trucking paid for by NGOs. 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 present its associated number of individuals.



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



Governorate and Cazas	Average of Litre per Capita per Day for all sources
Akkar (70.10)	
Akkar	70.10
Baalbek - Hermel (43.25)	
Baalbek	44.40
Hermel	20.12
Bekaa (64.9)	
Zahle	74.54
West Bekaa	43.33
Rachiaya	24.60
Mount Lebanon (105.88)	
El Metn	291.67
Chouf	117.07
Kasrouane	104.09
Baabda	95.79
Jubail	64.16
Aley	63.93
Nabatiye (65.95)	
Hasbaiya	68.54
Marjaayoun	66.63
Nabatiye	5.76
North (60.06)	
Batroun	84.64
Zgharta	81.73
Koura	78.63
Minieh-Danieh	43.84
Tripoli	25.69
South (114.42)	
Saida	121.09
Jezzine	97.80
Sour	81.81

Water Quality

99% of the Water sources have been tested. The table above presents the number of sites where the water sources are compliant or contaminated based on the presence of faecal 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. None of the sites resorting to Water trucking paid for by residents has safe drinking water when Water trucking paid for by NGO is predominantly safe (83%) 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 41% show contamination with Faecal Coliforms. 70% of sites connected to networks have access to safe drinking water.

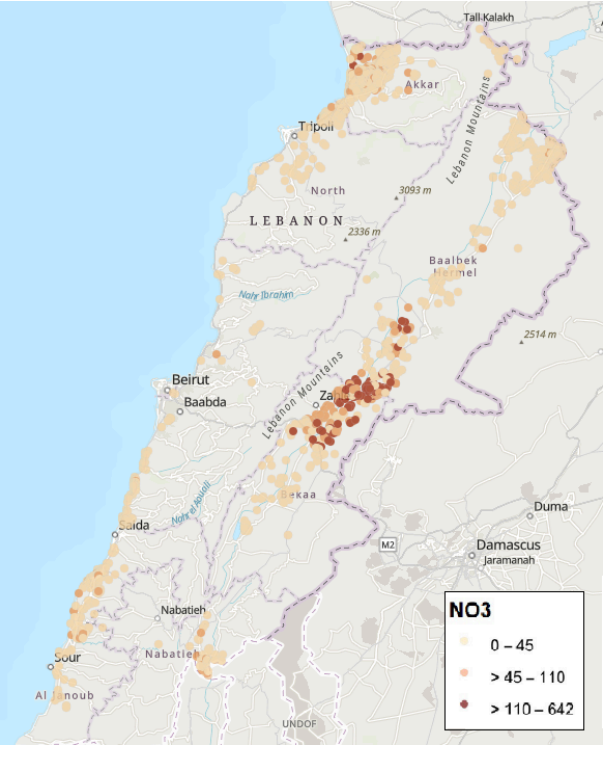
Main Source	irrigation & drainage channels	lake	protected borehole	protected spring	public network	river	unprotected borehole	unprotected spring	wate truck paid NGO
Safe Water	12	11.2	798	28	352	6	20	12	2111
NTU Contamination	26	1	134	1	21	0	1	5	28
NO3 Contamination	2	6.5	324	1	6	0	10	3	279
FC Contanimatuion	66	2	839	10	100	8	17	9	162
Distribution of	86	4	2041	40	504	15	55	25	2519

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.

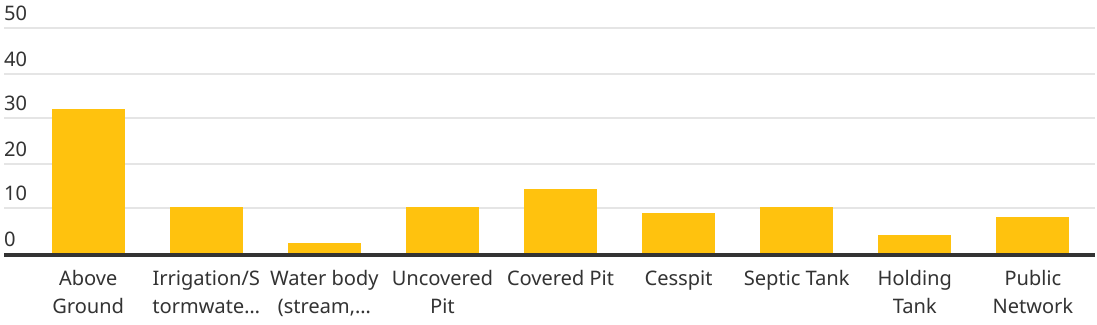
Those two areas are largely agricultural places which could be the main reason for having such elevated levels of pollutant in the water. In those sites, on-site water treatment can be challenging due to the high chemical contamination not allowing efficient treatment from Ultrafiltration.



Sanitation

Greywater management

Most of the shelter (32%) are discharging the greywater above ground. This number has significantly reduced compare to 2021 (46.5%). The remaining shelters are mostly managing the greywater in a similar type of containment as the blackwater. The connection to holding tanks had increase largely 4% (1,941) of the tents as this pratique increases the desludging frequency tremendously. Many tents connected to a holding tank for grey water discharge (72.5% or 1407) are in the Bekka governorate



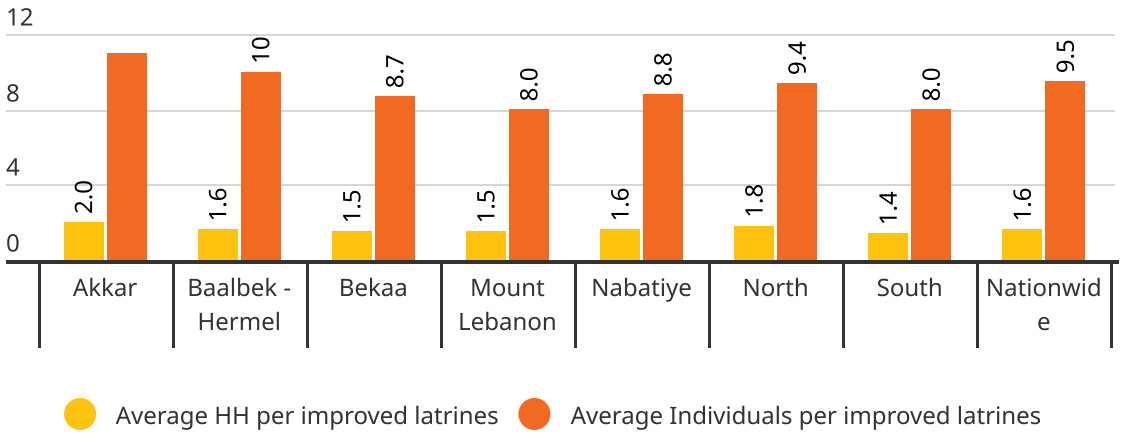
User interface

Five hundred thirty two people living in forty seven 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 its a significant decrease compare to the 275 individuals left without any latrines in 2021. This might reflect coping mechanism for communities selling the latrines superstructures.

In the figure below, we can find the average number of people per latrine or user interface. The governorate of Baalbeck- Hermel and Bekaa have the best coverage, respectively, of toilets per person and household. The governorate of Akkar is the one with a higher number of persons and families per latrine having on average one improved and usable latrine shared by 10.7 individuals and almost two households (1.9).

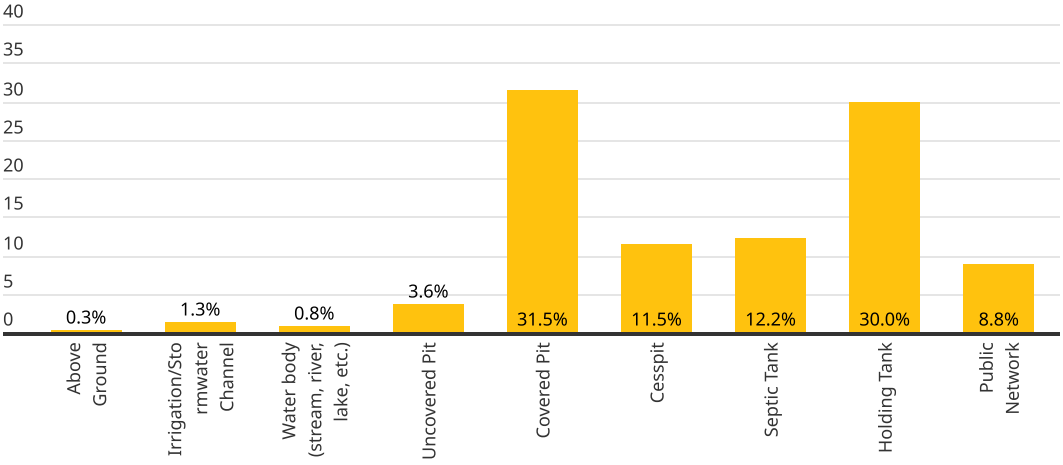
Governorates	Number of sites	Number of individuals
Akkar	8	111
Baalbek - Hermel	25	296
Bekaa	4	24
Mount Lebanon	3	18
Nabatiye	5	69
South	2	14
Nationwide	47	532

The overall number of latrines has reduced of 6,055 from 2021. This reduce the overall number of latrines to 7,443 from 2020.

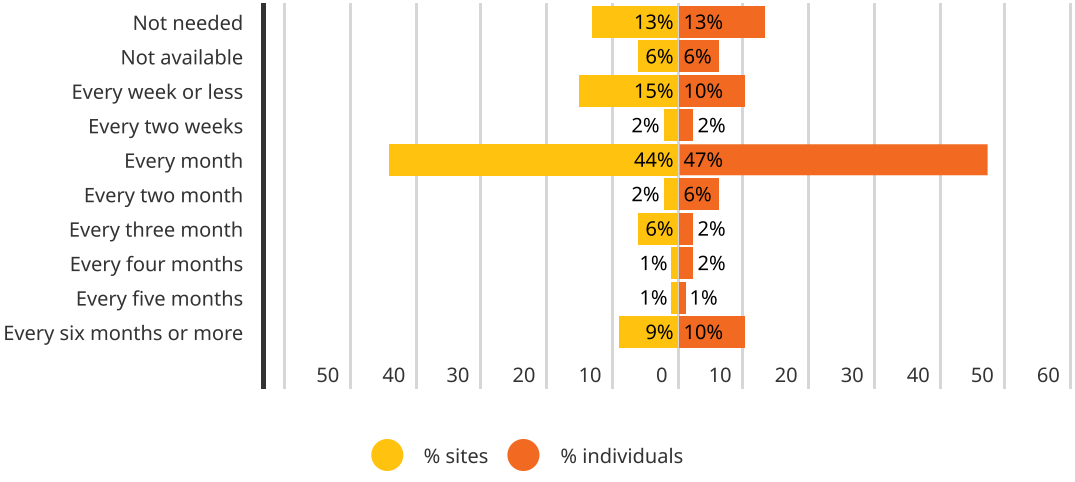


Sanitation

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



Desludging Frequency : Desludging frequencies, repartition per sites and associated population in 2022

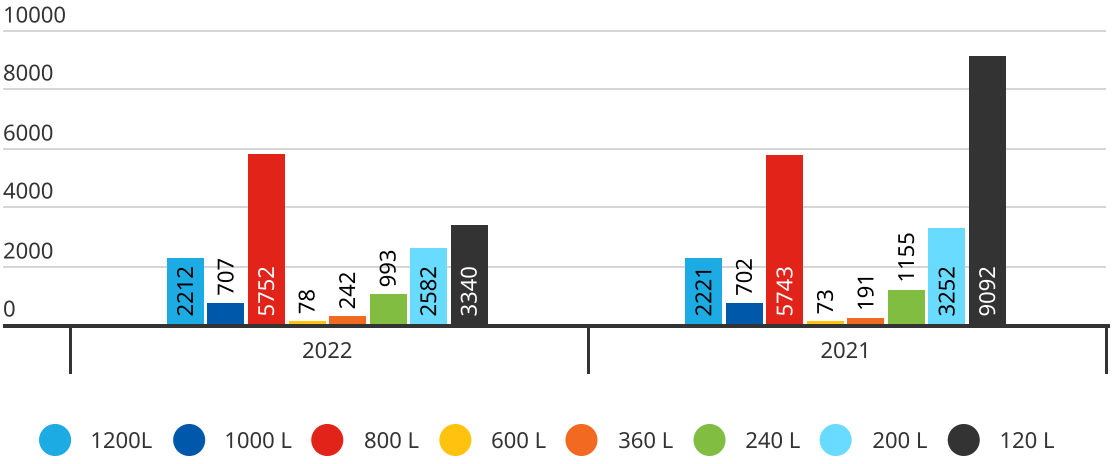


The most significant containment represented around the country is the covered pit or Cesspits and the Holding tanks. The latest, being sealed to avoid any wastewater spill to the environment, are the one amounting to one of the highest desludging frequencies with 10,287 latrines (24% of latrines present in the country) connected to holding tank 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, Unicef has developed onsite wastewater treatment systems enabling shifting to a frequency of desludging of once a year or every two years. Those systems are present in 37 sites around the country. Unicef is planning to target sites where the return on investment of such system could be of maximum of 5 years.

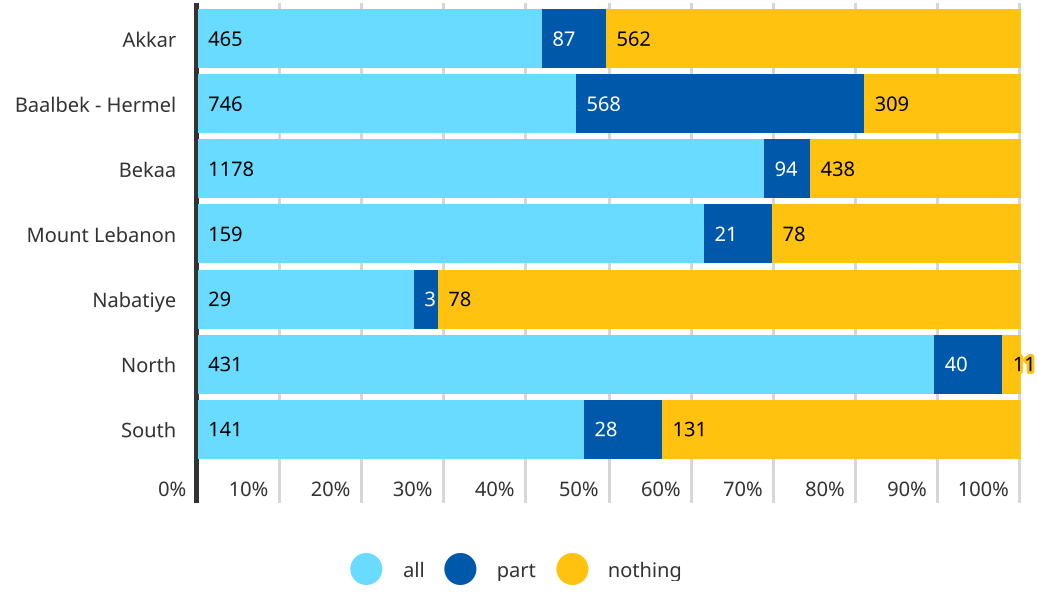
Solid Waste

All over ISs, the most common size of bins is not anymore the 120L metallic bins, often being a repurpose metallic barrel. People are mostly depending now on 800L dumpsters. The main reason of this shift is that ISs resident have resulted to sell those household items to cope with the current situation.



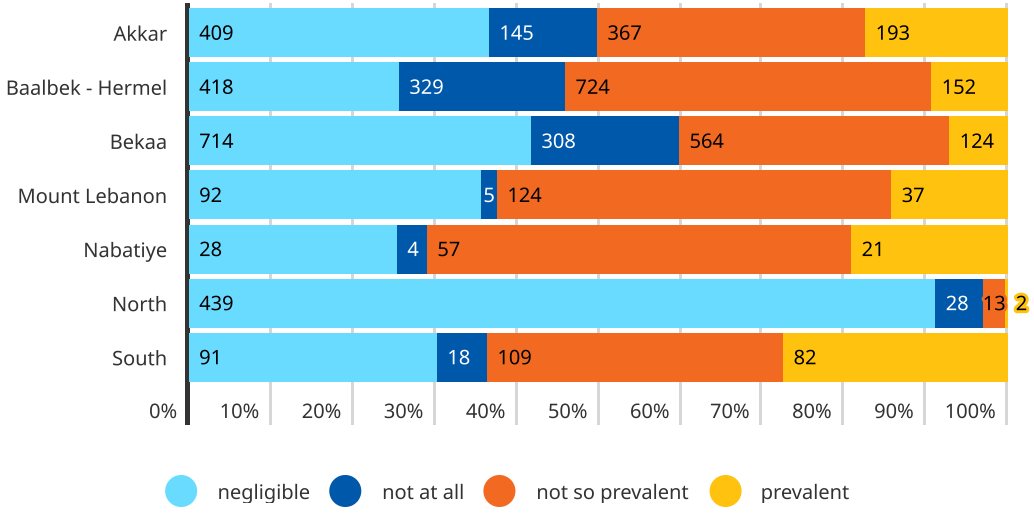
On average, 71.3 percent of the refuse produced in ISs are collected (totally or partially). There is a considerable disparity nationwide when it comes to solid waste management (SWM). The North is the governorate where solid waste is the most collected, with 98 percent of the refuse generated by the people living in ISs being totally or partially collected. Nabatiye is the governorate with the worst solid waste management for ISs, as only 32 percent of the refuse is collected.

Collection of solid waste per governorate



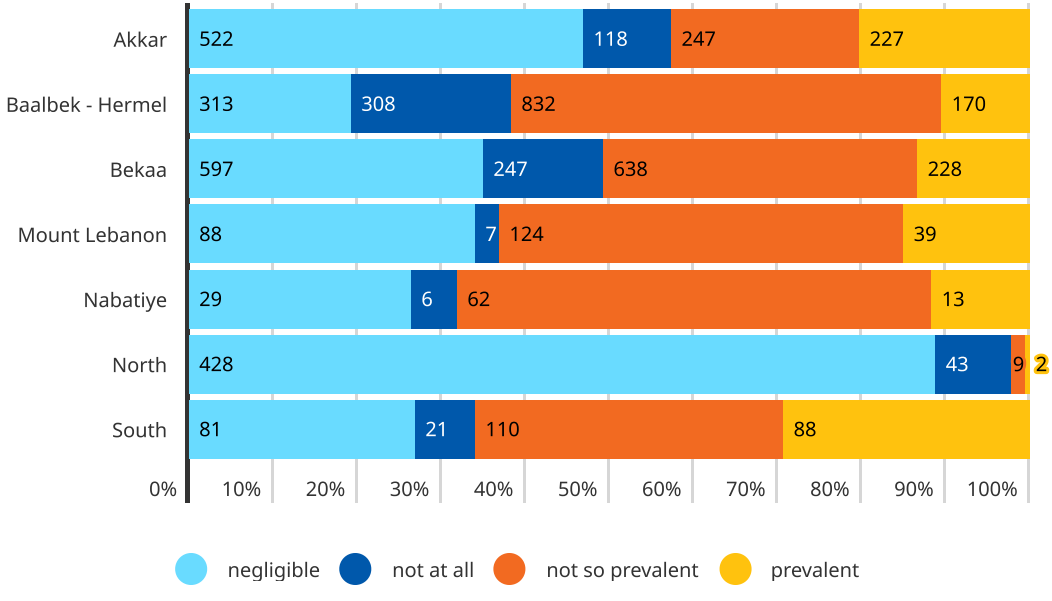
Environment

Insects



The graph above presents the percentage of sites declaring having issues with insects. Ten percent of the sites are stating having a problem with insects (reduction of 3 points from 2021 and 10 points from 2020).

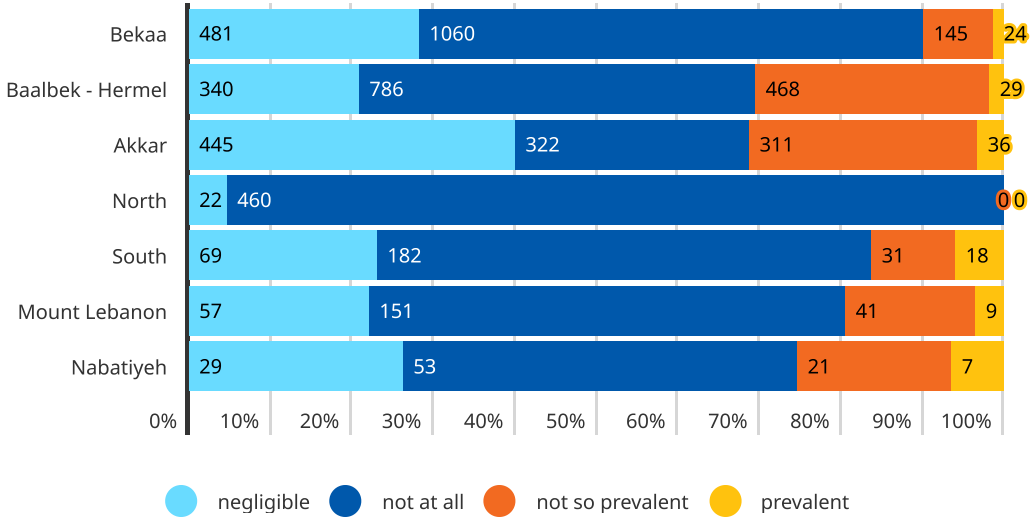
Rodents



Regarding the problem of rodents, the repartition of sites is similar to the ones reporting issues with insects. It must be noted that the prevalence of rodents has slightly increased of 0.75 points from 2021.
The governorates with the most significant representation problem of rodents are South with almost 30% of the sites (88 sites) and Akkar with nmore than 20% of its sites (227 sites).

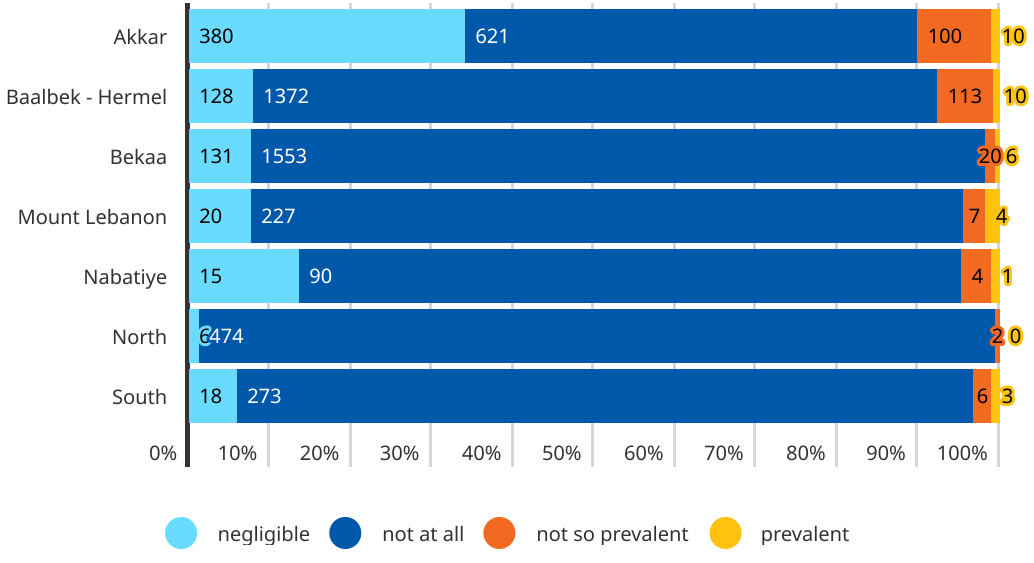
Environment

Littering



We can see in the overall country that the sites doesn't report issues of littering. Thought it has to be notices that the sites with no issues of littering have reduced in the entire country. 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 34 sites only across the country. It's absent or negligible in 95 percent of the sites. Even if the number of latrines is decreasing this seems not to affect the presence of open defecation on site.