



What Remains: Eco-Feminist Pursuits

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Memorials For A River That Once Gave Life:

A women-focused analysis of the Litani river pollution

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Introduction

A drive past the hills of Mount Lebanon to reach the Bekaa valley exposes Lebanon's environmental abuse and mismanagement. Wide, unplanned roads cut through rivers and valleys. Patches of burned forests occupy the greenery. Mountains are quarried, flattened or drilled to the core of the ground. Household garbage, waste from quarries and construction sites dress river streams. And along the way, the recurring smell of burning waste or sewage follows you. Unlike the stretch of the Bekaa valley, the landscape of Mount Lebanon helps contain the sensory impact of these breaches within the boundaries of the hills, which lay in close proximity to each other. However, in the expansive valley of the Bekaa, one stream of water receives, contains, carries and distributes catastrophic amounts of pollution cutting past municipal boundaries and infiltrating homes.

The Litani River is the longest in Lebanon. It flows through the Bekaa valley and reaches the Mediterranean Sea in Tyr, and it is polluted for as far as it extends (Nada, et al. 2019). The pollution is caused by human abuse and neglect to the river stream as effluents of sewage, industrial waste, agricultural runoffs, and disposal of municipal waste are dumped straight to the river (Litani River Authority 2021). The pollution of the river causes detrimental effects on the ecology, health, and finances of individuals and communities living near the river (Sherif and Fadi 2013, Shaban and Hamzé 2020, Sustainable Environmental Solutions, 2020). The pollution has also effects on the general community consuming food products coming from the river area (Madi 2012, Nabil & Safaa, 2018).

In 2017 activists from the region led mobilization efforts against the pollution (Hussein 2017, Topalian 2017). In 2019 the Litani River Authority, responsible for the water quality of the Litani River and Qaraoun Lake, ran an aggressive social media campaign against polluters, and initiated pollution reduction efforts (Yasmina 2019). INGOs and the Lebanese government have repeatedly allocated funds to abate pollution, reduce sewage effluents; filter chemicals out from industrial waste, and attempted to clean the thick layer of green algae on the Qaraoun Lake (Darwich, Shaban and Hamzé 2018). But since 2017, and until this year, 2021, nothing wholly effective relating to the betterment of the river and the community's living environment has been done.

The pollution and its impact on communities have worsened as Lebanon faces a multitude of crises. Lebanon has been on a spiraling downfall since the impacts of a deceitful 'low-productive' economy that depended on foreign deposits dragged the country into an economic crisis.¹ In 2019, the financial crisis was accelerated by the aftermaths of the COVID-19 pandemic, then taken further by the August 4 Beirut explosion. The new pressuring factors, in addition to the ongoing impacts of the Syrian war, alongside the ever-lasting political instability, led to the impoverishment of communities residing in Lebanon (ESCWA 2021).

Through this research, I complement other works² done on the case of upper Litani basin (ULB) pollution and take a women-focused approach. I consult women impacted by the pollution to document their experiences, practices and perception of community issues, mobilization, and responsibilities related to

¹ USAID, 2020. Financing Lebanon's Agro-Food Sector: An Analysis of the Sector Before and After October 2019. Report by Economic Development Solutions (EDS).

² Shaban and Hamzé's (2020) book presents previous literature in a table summary of studies on the Litani have tackled the environmental and biochemical aspects of causes and effects of pollution. The experiences of communities can be traced through the media in fragments, while one comprehensive booklet "Murder of a River and its People" – authored by Saada Allaw and published by Al Safir newspaper in 2018 – voices out the pain of communities affected by the pollution and points out the responsibilities of relevant authorities.

the Litani. In reflecting the experiences of women, this paper aims at understanding how communities living near the river are affected by the pollution and how they adapt to the situation especially viewing the current economic, health, and political crisis.

Methodology

In February 2020, I worked as an assistant for a documentary maker who wanted to visually represent marginalization and death.³ That led us to Houch El Refqa and the premises of the Litani River. There, I saw things that I knew already. I had learned of the symptoms, dysfunctions, diseases, and deaths caused by pollution, but refrained from getting involved. Therefore, when I got the opportunity to work on a research, I decided to collect testimonials, interact, and share knowledge with women from Litani areas who survive an environmental catastrophe on a daily basis and are marginalized from the national dialogue.

The collection of these stories and information was done using what is known as “targeted, and convenient, sampling.”⁴ I started collecting data in October, as the fuel crisis was crippling the country. I held my first interviews online and planned my first field visits that took place later that month. Data collection was done by November 2021.

To complete my research, I conducted interviews with professionals, but just as importantly, I held interviews and group discussions with Syrian and Lebanese women directly impacted by the pollution of the Litani. For many of the interviews and focus groups, I went to the location of the women, thus visiting

³ <https://vimeo.com/497226393>

⁴ Viewing the unstable political and economic situation, respondents that were available and willing to provide information were either visited in person or reached through online calls

river or lakesides of four villages: Houch El Rafqa, Bar Elias, Houch el Harime, and Qaraoun.

When data saturation was reached, I reviewed the data and thematically analyzed it (Braun and Clarke 2006), grouped it and interpreted it into what you see here as chapters of the paper.

In this research, I narrate the stories and experiences of these women framing them with environmental and public health knowledge. I also relied on the notes of experienced professionals whom I discussed the pollution with, to qualitatively evaluate the current state of nature, health and pollution causes and solution.

Into the River: Discussion of Women's Stories of Litani and its Pollution

The journey of the river

The Litani river starts in Baalbek, and crosses the Bekaa alley, passing by village after village, from Houch el Rafqa to Bar Elias, to Houch el Harime, carrying pollutants through fields of agriculture and occupying space in water wells, until it reaches the lake in Qaraoun (Shaban and Hamzé 2020).⁵ In summer, the water is stagnant and black. Running slowly, its quantity and velocity depend on the flow of effluents coming from the sewers, and the smell acutely pierces the nose, and the closer you are to the river the more its smell contributes to the hot weather malaise. In winter, the water flows in abundance as the rain floods the riverbanks and the storm-water canals. The

⁵ This stretch makes up the Upper Litani River basin (ULB). In Qaraoun, the lake water is diverted to produce hydropower, then, only in winter, when water flow exceeds the need for human use and hydropower generation, the ULB can continue its flow into the Lower Litani Basin (LLB) and cross the South of Lebanon to end in the sea 7 km North from Tyr.

contaminated fluids infiltrate the homes of those who came in refuge from war and who now live in spontaneously built cement structures;⁶ the waters inundate the urban streetscape of the village that borders it. Also in winter, the smell travels with the wind, crossing the small cities, trespassing what is left of the Bekaa forests and reaching communities living at the hilltops. This especially happens around the lake area, where the valley becomes tighter, and the mountains come closer to the dammed riverbed.

Memories of a blessed river

In the past, there were neither parks nor commercial touristic spaces: the old generation would abundantly profit from the outdoors, and visit the neighboring forests, fields, and river to share good times with family and friends.

“My mom used to prepare food, salads and mezze, my brother used to drive us there, he was like 15-16 years old. Yes, my sister used to take 1,000 LBP from me in order to teach me how to drive, which was funny. We used to meet a lot of people there, swim together, and have fun together. They used to wash sheepskin on the river as well, it was a nice tradition, they’d all gather up and have a small party, throw themselves in the water, that was like 15 years ago.” – Mounira, Houch el Refqa

Fifty years ago, the river was clean,⁷ and up until 20 years ago there was willow and poplar trees on the borders of the river in Bar Elias, Houch el Refqa and Houch el Harime. In the past, Houch el Refqa had small privately owned forests called “Ghabet Ghayda” that provided their owners furniture material, heating,

⁶ Syrian communities of Houch El Harima as well as Houch El Refqa mentioned polluted river water flooding and entering their houses.

⁷ The first mentioned complaint of pollution could be traced back to the year 1937 (https://www.al-akhbar.com/Archive_Local_News/189393). Despite this, communities still used the water probably due to low and in-evident pollution and lack of awareness.

and a source of income. Until the year 2000, residents of Houch el Refqa were still drinking the river's water and using it to irrigate their productive lands.

"I have seven kids now. I used to give them a bath, feed them; I used to start by cleaning the house, prepare the water, we didn't have water heating machines back then, so I used to make a fire outside of the house, heat the water and wash the kids on a daily basis. There was a lot of work to be done. I had to go fill up water in four trips, and now I can't even get out of this chair." – Souheila Y (70 years), Houch El Refqa

Fifty years ago, women used to clean carpets and wool, bathe their children, and when given the opportunity in the absence of men, get in the water and clean themselves between the bent branches of willow trees and river shrubs. Women of Al Khoder Tribe of Houch el Harime used the wool-cleaning river trips as an excuse to go out in groups without their partners: "Yes, they would go and even if they would get tired, they would have fun. The trip was cheap... you know, back then communities weren't open-minded." People used to take their food and sit next to the lake; the river was shallow, clean, and safe for swimming.

Many of the women's stories express how communities were more in synch with nature. Mounira K from Houch el Refqa remembers stories her mothers would tell her, of how women washed their dishes and showered in the river. Having lice in the hair was seen as something positive, "because lice eat dead skin off the head, imagine knowing that now, we just panic and can't even accept it!" And so Mounira longs for such a life that was "less stressful, less polluted, more secure." Living near the Litani was a privilege for it provided free and safe access to clean water, clean vegetables, and a space for rest and fun at a proximity from home.

Water was abundant, and the river flooded in the winter months and reached houses far from the main river stream. Just as mountain communities

commonly save processed food for the snow season, women of the Litani would make *mouneh* to live through the winter flood.

“My mother used to tell us that my grandparents’ house was near the river and they had trees all around. They used to drink from the Litani 30 or 40 years ago, they used to fill up the khabye⁸ with water. [...]”

In the past, communities would confidently drink from the springs, the river and the water well; they would also eat vegetables straight from the fields. The river was a blessing.

“We used to go next to the river, we’d build a house with no walls when there were no houses. We used to go every day, prepare the food next to the river. The river would flow right in front of the house! We used to sit right next to it. I was as young as my youngest daughter. One time my father brought my mother walnuts, so when my siblings and I nagged because we wanted some, she threw all the walnuts from the bag and into river and all the walnuts floated as they flowed away. And so, right away all my sibling and me jumped into river and saved all that the walnuts that we could catch.” – Em Saoud (58), Houch El Harime

Communities of the Litani witnessed and heard about the changes that happened to their environment; many respondents assertively stated, “*The water **was** clean!*” Even those that have not experienced the cleanliness and generosity of a nearby nature talk about the happiness that the river brought.

Hala (23 years) and her husband were born only 7 years apart, but unlike him, she did not get to enjoy the river’s good days that her husband always speaks of. She wishes to share his memory of a river with fresh clean water to swim in and drink from and imagines cafes and parks surrounding it. When talking about how the river was, women of the Litani express a feeling of loss and reminiscence.

⁸ A pottery jar that is a specialty of Druze

Stories of adjustment to environmental change

Service Trade-off⁹

What the river once had as a natural, flowing, and lively ecological function, was replaced by services of bioenergy, food¹⁰ and water provision. The government, through the LRA (Litani River Authority),¹¹ diverted the water flow, created irrigation canals, and dammed the river in Qaraoun to produce hydropower (Litani River Authority 2021).

According to the women in Qaraoun, services that were expected to bring benefit for the community brought profit to those in power, and justified land grabbing, destruction of a watershed, and pollution. In villages like Aitanit and Bab Maar, communities were promised electricity and a vibrant tourism sector in exchange for land.¹² At this moment, the communities around Qaraoun Lake lost their previously productive lands to the lake, do not get 24/7 electricity, have no tourism activities, and suffer from bad health.

In other villages such as Houch El Refqa and Bar Elias, the water irrigation canals serve as a sewer. Eventually, the service offered by the river was to allow polluters (industries, hospitals, municipalities...) to exploit the water canals and translocate their pollutants to somewhere else.¹³

⁹ Ecological system services (ESS) are the anthropological benefit derived from nature, trade-offs are inevitable when managing these services as economic and/or social gains result in ecological disturbances and other social losses.

¹⁰ Food produced includes agricultural goods and animal farms for meat and dairy production.

¹¹ Litani River Authority is a public authority established in the 1954 whose function are to implement and maintain Litani river irrigation and hydropower, as well as monitor all Lebanese rivers. <https://www.litani.gov.lb/en/>

¹² Land acquisition meant that many families that relied on farming in the valley had to rely on other sources of income like tourism.

¹³ An expert shared that many industries direct their sewage directly to the river, or indirectly by sending them to municipal wastewater treatment plants that cannot process industrial water. In addition, industries hire contractors to rid them of their solid waste; these often dispose of the industrial garbage in the river canals or lake.

Livelihood versus common good

The pollution destroyed the ecosystem services of the river and lake, and devastated provisioning services¹⁴ as people who previously used natural resources for income generation no longer have access to them (Millenium Ecosystem Assessment 2005).

For farmers, shepherds, and owners of recreational sites, water that was previously available for free was then required to be accounted for as a cost; and those who could afford it, pay to ensure clean water by digging wells, installing filters, or buying from other sources. Fishermen lost their livelihood as the river fish died and as fishing in the lake became prohibited, and farmers lost their source of surface water, in quantity and quality, as raw sewage and industrial waste filled the water canals. Doha's father used to go fishing with his well-equipped fisherman friend who told her stories of their trips that used to be like rituals and that have now stopped, *"because now, you can only buy fish."*

Since 2019, farmers were no longer allowed – by LRA who was enforcing its decision through municipalities – to use the river or lake to irrigate their crops, and shepherds were banned from taking their sheep and goats to graze or drink from the water. The pollution of water has caused disagreements, as individuals that relied on the river for low-input income generation for fishing, agriculture and small-scale dairy production were not able to properly adapt.

¹⁴ Provisioning services are products obtained from ecosystems like water, food, and fuelwood. Cultural services, regulating services and supporting services are the other three categories of ecosystem services.

These communities are perceived to be the ones most impacted by the pollution, as their livelihood is threatened while no alternative was presented to them.¹⁵

Many food producers continued to use the waters of the river. They used sewage and chemical rich water to continue generating income; the pollutants accumulated in the food, especially in fish and leafy vegetables, and were then distributed for human consumption (Mcheik, et al. 2018).

Kawthar, a water expert who used to do door-to-door awareness on the sorting of waste, was shocked when she saw the Bar Elias landfill at the river border *“the leachates going from the dump are used by some farmers to irrigate the vegetables, it was really incredible, we are all eating these vegetables irrigated with water from a dumpsite, especially in Bekaa.”* For many residents of the Bekaa, it wasn't until 2019 that it became evident that food sources in the regions are contaminated. Only then had they realized that they no longer have access to the reliable food sources that they once knew, and now need to make extra effort to ensure the safety of their family.

While looking for a clean source of vegetables, Noujoud from Majdel Balghis went to a village where the municipality prohibited the Lands irrigation from the Litani water and asked farmers to dig wells or use rainwater to irrigate. Noujoud asked a farmer about his source of irrigation water, and to her surprise, he told her that he had a well that has dried, and since he couldn't afford to buy water this year, he is now filling the well from the river stream.

“We told him that this causes harm but he said that the soil cleans and filters the water. Some people don't understand the damage and they only care about their own profit. As I told you there is a high cost on farmers

¹⁵ The water expert who studied was quality problems and solutions in the Qaraoun saw that the communities impacted the most are people who used to economically benefit from the river and lake.

and some even admit irrigating with the river's water. I asked the farmer where he was selling his produce and he told me he was selling them outside the village.... The fruits and vegetables get contaminated, even if the soil filters the water.” – Noujoud K. (28), Majdel Balghis

No water and no alternative

Despite living at the border of a river, communities of the Litani face challenges in acquiring clean water to ensure their needs (Diane, Michele and Giorgio 2017). Municipal water that comes from the government water network is now barely available, most recently the government is unable to distribute water to homes because of fuel- related electricity cuts. This scarcity forces family members to stay alert to take advantage of this water as much as possible by filling gallons from the kitchen tap and making sure the house tank also gets filled. *“You might forget to take care of yourself so that you'd be able to provide everything to your house and family. This is a priority,”* shares Hala, a single mother who often stays awake at night to make sure that she doesn't miss the opportunity to collect water when the time comes.

The women of Houch El Harime consider their communities to be bearing the consequences of a disagreement that affects the availability of water and are loaded with chores and concerns because of local tribal and political dispute over the municipality mayorship. While electricity issues in Lebanon are now nation-wide, the women of Houch El Harime say that no one is taking responsibility over it, no one represents them or their struggles to ensure electricity nor water provision and this leaves them with only one hour of water available per day.

“It's available during inconvenient times, you have to manage your time... if you had any... so that you can do the laundry, iron the clothes, clean the floor.” – Aisha (28) from Houch El Harime

Obtaining water from other sources is also a burden; well water pumping has become very expensive, and the water has been infiltrated by sewage (Nabil and Safaa 2018).¹⁶

Private water transporters – whose water sources are unknown and not trustworthy— have become expensive and only respond to the need of the caller if the tanks to be filled are worth the travel.

“Now we haven’t used the well’s water for more than 5 years, it’s infected with bacteria from sewage water, either from Libanlait, or from the river. We used this water for cooking, cleaning, showering, and drinking, but one day we realized that the kids are smelling bad after taking a shower, and the water was really polluted, for this reason we stopped using it.” – Mounira Y, Houch El Refqa

Awareness about the water source and quality is strong among the Lebanese community and is growing amongst the Syrian Refugee community. Despite this knowledge, women often cannot afford alternatives.

In Houch El Refqa, the septic tanks neighbor a water well that the landowner dug many years ago. When the water table is high and the well water springs from the ground, women of the camp fill their buckets to take advantage of the situation, despite the severe health risk.

“The bathroom’s septic tank is near the wells that we take our water from. Where would the wastewater from the bathroom go? It goes to the well!” – Elham ABDallah (21), HER, Syr

The Syrian communities get NGO support to receive drinking quality water, and installation and maintenance of sanitation. As the women noted, the NGO

¹⁶ Water well exploitation is one of the causes to the reduced water table and drought of the Litani (Khair, et al. 1994). In summer the Litani dries completely and only sewage and industrial water flows in it. The pollution is later diluted with rainwater in winter and as it becomes less condensed and obvious it serves for domestic use, especially for cleaning and irrigation.

services are often insufficient, discriminatory, and neglectful to hygiene quality. In Houch El Refqa, one of the two ITS (Informal Tented Settlements)¹⁷ that border the river is entirely excluded from receiving water support, while the other camp receives an insufficient amount.

A water quality expert stated that NGOs often fail to supervise the contractors' water quality and cannot ensure that the clean tanks are not later filled with random water. In ITSs, septic tanks are dug under the houses of refugees; women in Houch El Refqa complained that many times in winter the NGO responsible for emptying tanks arrived later than scheduled, causing the tank to flood.

An open-air enclosure

Across the Litani stream, a rancid odor engulfs one's breath. The odor changes according to location, sometimes giving a feel that the air is more chemical-like with no certain ability to identify what the chemical or mixture of chemicals can be, while other times the odor can be straightly linked to the smell of sewage. In Qaraoun, the stink is caused by cyanobacteria,¹⁸ a toxic blue-green algae that covers the lake, suffocates the water organisms, and accumulates and dries as white foam at the corner of the lake (SPNL 2021, Yazbek, Fadel2 and Slim 2019).

That said, everyone in the region complains of the smell, everyone complains of headaches, and feelings of frustration; and the stronger the smell, the angrier and incapable the residents feel. The stink disrupts social plans and routines

¹⁷ ITS (Informal Tented Settlements) is the official term used for Syrian refugee camps, both Syrian and Lebanese communities simply refer to these as 'the camps'. The terms are used interchangeably in this essay.

¹⁸ Cyanobacteria are photosynthetic bacteria that release toxins that can induce fever-like symptoms, respiratory issues, gastrointestinal problems, and skin rashes.

and induces feelings of shame and fear. When the smell is bad, women cancel plans from visitors and mothers keep their children inside the house.

“Sometimes that my husband tells me there are people coming to visit us, I insist that they don’t come on that day because it smells really bad, let’s keep it for another time. In fact, there are times that the smell disappears and comes again, maybe because of the wind direction. [It affects me] A lot, especially that we live close to it. And it’s risky for the children as well, we don’t let them go out as much as we used to, we get really worried.” – Mayada Y, Houch El Refqa

Many women said that they have gotten used to ignoring the smell: as I was leaving one of the houses after an interview in Houch El Refqa, I naively pointed out that there is a smell of sulfur or iron burning, the interviewee was fast to answer, “What smell?”.

When the smell is too strong to endure, everyone goes indoors and casually closes the windows – as if it was normal – that often fail to keep the danger out. The smell is a daily reminder of the dreadful present and the feared future, a reminder of the unbreakable cycle of decay, of infections and deadly diseases.

“We got really adapted to the situation, but it always triggers you again when you hear of a new cancer case or the death of someone, or even when the smell reaches town, and then you remember all the times you tried and suffered to be heard, and then you kind of stop thinking about it... It’s like a cycle.” – Doha Y (23), Houch el Refqa

A nature-deprived community

The deterioration of the river was accompanied by a loss of surrounding nature: trees no longer grow on the riverside and all that is left are some lonesome canes.¹⁹ Animals are rarely seen near the river; birds avoid the Litani

¹⁹ Shaban and Hamzé 2020 have declared the Litani a dead river.

and migratory birds that used to eagerly reach the Bekaa to pause instinctively no longer come near the river because of the smell. Frogs can no longer be heard during mating season, even the snakes disappeared, and the fish are completely gone from the river and can only be found in the Lake.²⁰

The loss of green places was accompanied by **urbanization²¹ and changes in social practices**. Loss of nature also meant loss of public green spaces for mental rest, for family gathering, and for connecting with and learning from the natural environment (Vanaken and Danckaerts 2018, Sugiyamaa, et al. 2018).

“We would want to have a space in nature to take our kids to, to teach them about nature. In kindergartens, they teach kids about the fall of leaves during this season, I could've taken my children to show them how the leaves fall, how the trees look, there is a lot the kids can learn and discover in nature. Yes, there is nature around us, but it is not how it used to be.” – Hala, Bar Elias

Natural elements are no longer a resource, and communities lost most ecosystem services that were previously conveniently offered, for free. The polluted environment is in fact a missed opportunity for leisure and recreation that women used to benefit from by taking their kids outdoors and spending time socializing and taking a break from house chores. It was especially a missed opportunity that families could've benefitted from during the COVID lockdown (Pouso, et al. 2021).

“My house has a direct view of the Litani, and it's such a shame that as much as I love that place, I am unable to go and spend time in it, and every time I drive past it I just can't bear the smell of it.” – Doha (23), Houch el Refqa

²⁰ Women in Qaraoun mentioned that divers who went in the Lake saw fish 'as big as an arm'.

²¹ Urbanization is a lead factor to water quality deterioration in the ULB (M Khatib, Baydoun and Elkordi 2018), which in turn led to the general environmental collapse.

While visiting the riversides hasn't been an option since the year 2000, the Qaraoun lake has also recently become a destination that tourists avoid.

“My mother's relative in Kuwait used to visit every year, but she stopped visiting 3 years ago because of the health situation [...] the disease rates, the smell. For example, you didn't use to pass by the lake and sense any odor, but because of the pollution, there is a bad smell. People are afraid they might get sick, so they stopped coming.” – Tahaweel (20), Qaraoun.

The Lake still evokes a confusing duality. The most recent social activities done near the lake included: ²² a biking event designated to morally support two young siblings who had cancer, and a river cleanup event that was done in response to the millions of dead fish that floated on the river and was decomposing on the shore. On a mass scale and from a far viewpoint the lake is beautiful and useful to produce power, but the lake is also murky, stinking, and is causing death and disease.

Nature as a refuge is now only available in places far away from the river, like in the hills of Majdel Balkhis, Bab Maraa and Dahr el Baydar, and even nearby in Anjar, and at the cleaner stream of Al-Assi river. The oldest and the youngest women of Al-Khoder Bedouins still travel with their herd during transhumance season; they set tents and spend the summer from June to September in the clean mountain air of Dahr el Baydar, “safe from the river and the sickness it brings.” Taghreed who works in reforestation goes to visit sites she planted far away from the Qaraoun Lake, now that she is old enough to drive, she uses the possibility to go far, and find ‘better’ spots to relax.

“The river has really become the river of death, a lot of young people died because of it, and a lot of villagers suffered from losing their loved ones

²² According to Petra Chedid, a local tourism and community engagement expert.

because of it, I hate it now, it was really one of the best memories, now it's one of the worse, how can I love it when it took away my loved ones?"
– Mounira, Houch El Refqa

The state of nature deprivation that the women of the Litani expressed highlights a flagrant contrast between the place identity that older generations had, and that has now been replaced by a perplex type of attachment. Despite feeling attached to their village, especially through social bonds, women feel alienated²³ from their natural environment as expectations of an accessible, clean, and safe environment are not met.

Impact of pollution on community health

The women I spoke with say that they are eating and drinking poison, their skin is touching water that causes allergies, and they are breathing toxic air.

Pollution, human contact, and impact on health

The environmental pollution of the Litani greatly contributes to the communities' **burden of disease as individuals live in ill health, and people prematurely lose their life because of disease** (Hessel 2008). **The air, water, and food pollution cause illness and deaths.** The multitude of contact with chemical toxins as well as bacteria, viruses and fungi has greatly increased the incidence and prolongation of diseases, and deaths, have cost communities socially and economically.

Women who newly moved into the camps of Houch el Rafqa and Houch el Harime repeatedly stated that their kids did not get sick before, as much as they do now.

²³ Alienation is a result of lack of sense of place which is affiliated with the inability to enhance one's living conditions and having the desire but inability to leave. Water pollution and its resulting consequences lead to a loss of sense of place (E. Cross 2001; Nor n.d.).

“A lot of fever. The kids here always have a high fever. [...] We cannot even buy medicine to decrease the fever, it now costs 80,000LL.” A Syrian resident of Houch el Harime shares, “People always have the flu because of the smell, they’re always sick.”

Insects and rodents carrying diseases wander in the villages neighboring the water; in the camp of Houch el Harime the group of women call their neighbor that was scratched by a rat a week ago, and eagerly describe how a mosquito bite in the camp is unlike one of any other places, and it causes a big swell, a bump, and often also cause an allergy.

Residents of the camps state that they experience stomach pain, diarrhea and vomiting caused by drinking unclean water; people living in the area get gastric diseases because of the food. As the women explained, the dirty water of the river, and often the dirty water that reaches the household tap cause frequent skin rashes to children, women, and men.

Women specially get recurrent bacterial and fungal infections in their private parts. Kawthar was able to create a safe environment for women who complained about yeast infections and learned that the women were unaware that what was causing the itching was actually the water that they used to clean themselves with.²⁴ A group of Lebanese women in Houch el Harime acknowledged that when they feel itching in their private area, they go to the pharmacy to buy an anti-fungal cream because they cannot afford a medical consultation or tests to identify the specific cause of rash.

“There weren’t that many cases of cancer or asthma or allergies a couple of years ago. The increase of cases started occurring 5 to 6 years ago.

²⁴ A 2020 Oxfam report (Rima and Hiba 2020) that examines menstrual hygiene management amongst Syrian Refugee women in the Bekaa acknowledges bad WASH conditions within ITS, including bad hygiene, questionable sanitation practices and insufficient water, but misses to recognize bad water quality in the list.

There's almost one cancer case per family now or one allergy case or asthma case.” – Petra Chedid, Tourism Expert from Aitanit

Respiratory issues, and asthma incidence was observed to have drastically increased especially in children, and as repeatedly mentioned “everyone has an inhaler now.” Takla (25) is scared for her daughter who gets anger tantrums whenever she is out of medicine, “*we can't find the spray anymore, and even if she does, before it used to cost her 17,000 LBP, now it costs 217,000 LBP.*”

Cancer and death

Cancer was first thought to be caused by genetic factors, or by god's will. But for the past six years at least, communities of the Litani became aware that their living environment is exposing them to cancer-causing agents. Despite this awareness, many are reluctant to do medical checkups in the fear of learning that they are sick and need to deal with a malignancy. Hala, a survivor and activist in Bar Elias felt a lump in the shoulder, when she went for a doctor's checkup, she learned that she has early-stage breast cancer.

“It was almost three years ago. The passing of a young woman and a young man has impacted me a lot, other than the deaths of several parents. The death of a friend of mine, Hussain AK, who was a year older than me, and the death of Habiba AA, who was two years older than me, and who should have been 25 years old now, were a major loss for the parents, friends and the whole town, they passed away almost in the same year. You can't miss their funerals, because it is a grave loss for us all.” –Doha, Houch El Refqa

Every family has (or had) a cancer case. A woman in Houch El Refqa points at a series of one-story-buildings that face the river “this house has a cancer case, this house too, all of the people that lived here are dead.” Karma from Bar Elias speaks of six members of the same family that died of cancer, and Habiba who

everyone speaks of in Houch El Harime, was 25 when she died of cancer, she died before her father and grandmother who are also sick with cancer.²⁵

Leukemia, lymphoma, breast cancer, stomach cancer, lung cancer, skin cancer... all were listed as cancers that community members suffered or died from. The women repeat that cancer's impact on youth is massive, with students disappearing from schools to spend time in hospitals; classmates lose their friends, and children are scared by the thought of losing their loved ones. The women talked bitterly of what they have to face, like Doha from Houch el Refqa:

"We can't keep saying that it's okay, Hussain's mother is still mourning her son's death, why shouldn't a 24-year-old young man be among the living right now? He was a student, his mother wanted him to travel, he was the world in her eyes, and now you can see her crying by herself at his grave."

Deadlock and mental health

The fear of disease and death, and the worry about water and food contamination, drains the mental health of the Litani communities (Wutich, Brewis and Tsai 2020, Noubani, et al. 2020).²⁶ Such living conditions cause demotivation to the old and the young, and a feeling of entrapment and inability to act or change the doomed fate.

²⁵ Lebanon has the highest cancer rates amongst countries in the region (Charafeddine, et al. 2017). MOPH website classifies cancer incidence by type and by gender but does not make public its geographical distribution. Despite respondents having made reference to a study that stated the cancer rates of Litani villages, none of this research were shared or found online. Despite cancer being an evident result from the pollution, many respondents abstained from mentioning the disease.

²⁶ Pollution health risks, and lack of access to clean water and food pour into women's worries and inability to meet aspirations for a better life. Thus, contributing to the untreated mental health issues of Bekaa communities that include exposure to war and violence, socio-economic constraints, social inequality and (for women) patriarchal social systems (Noubani, et al. 2020).

“We cannot do anything. When the plane goes above your head in Syria what do you do? You would leave it up to God. The same way we are leaving it up to God here.” – Ayouch, Houch El Harime

Mothers are constantly worried about all the invisible things that are harming their families; Syrian women are obsessed that their kids don't go near the river since it drowned two 10-year-old boys two years ago. The women are scared but often express that they have gotten used to that sensation, as coping with the river and death has become part of daily life.²⁷

Economic burden

The economic burden has been worsening specially viewing the economic crisis.²⁸ Women complained about the price of medicine, Elham (Syr, Houch El Refqa) who gets severe headaches from the river smell said that now, one box of Panadol is worth two full days of daily labor, her and her friends debate over the price of the box to finally settle at 37,000 LL. Hala (BE) whose siblings died of cancer shares her relief as she also complains about the prices of medicine.

“Everything is very expensive. The prices doubled and even became 3 times more expensive. I started taking nerve drugs after my brother and my sister died 3 years ago. They used to cost 18,000 LBP and now they cost more than 50,000 LBP, almost 100,000 LBP. For example, the Panadol used to cost 2,000 LBP, it costs nowadays 45,000 LBP, and this

²⁷ Nems blog published a panel in 2020 titled *El Mawita* that can be translated to “her death drive”, the comic's main character, Batool, was having a flash of anxious thoughts about the revolution, her rights, her family and Levantine politics when she meets a contractor at the Litani who promised her a new clean river by noon. Batool rushes to buy a swimsuit and enumerates all the deaths that she witnessed, her father her mother, her brother and her son all died because of the river; she puts on a swimsuit with a toxic warning sign on it, and drools at the thought of swimming in the river. Batool stands at the river side as contractor open the thick water canals, and as green sludge pours into the river stream, Batool screams “I would die to swim in the river!” and jumps in and dies.

²⁸ Women in the Bekaa struggle to afford medical treatment (Maria Gabriella Trovato 2021), and gender dynamics in Syrian communities often cause the prioritization of men's health and access to medication over women's (Shadi, et al. 2021).

is a cheap basic medication, so of course hormonal medication and nerve medicine are much more expensive now. Thankfully I don't need any more hormonal treatment.” – Hala, Bar Elias

Visiting a doctor has become extremely costly, as the visit also includes the dollarized cost of transport.²⁹ Hala who is a single mother of two and needs to visit her doctor in Beirut has been avoiding the trip since a year now, first due to the expenses attached to the trip, and second from the fear of contracting COVID and having to deal with the financial consequences. The cost of the medication continues to increase. In addition, the government's failure to cover the cost of cancer medicine and treatment has also made it more and more complicated for patients to seek treatment.

“The river affects everyone!” But some more than others...

As the air carries the smell and as waters carry fecal and chemical contaminants directly into houses or through vegetables, the women echo, “The River affects everyone.” Many women said that the pollution of the Litani expands across the nation, as vegetables and mouneh travel beyond the river boundary. The vegetables carry chemical contaminants such as arsenic, lead and many more, and microbiological ones like E. coli, pseudomonas and others... some of which are resistant to antibiotics (Madi 2012). No one in Lebanon is effectively spared from ingesting the Litani pollution.

“Everyone in the community is affected, every single one, young and old, rich and poor, plus we're really careful about the source of our vegetables and wash them carefully. But Hawch el Refka is entirely affected, Botneyil... as well as Beit Chema...” – Resident of Houch El Refqa

²⁹ Patients requiring hospitalization often travel to Beirut as centers in the Bekaa lack proper service and are not trusted (Nadine, et al. 2021).

However, the air and smell are an exclusive experience to those who live in the neighborhood of the waters. According to the women, communities whose health is impacted directly and at most frequency and severely are the ones living nearest to the river, especially Syrian communities living in camps at the banks of the river, and Lebanese communities whose houses' façades directly looks at the Litani.

Vulnerable groups such as children, pregnant women and elderly are also greatly affected as their immunity is fragile and their ability to recuperate from sickness is jeopardized. A school teacher in Houch el Refqa shares her concern for old people whose health is already in critical condition and whose health conditions easily worsen when infected by a virus or bacteria.

“You know how it is in our country, those who are wealthy can afford being treated, and the others die in their own homes.” – Hala, Bar Elias

Women of the Litani, especially in Bar Elias, Houch El Refqa and Houch El Harime, say they are victims of unfair treatment and neglect from the government. And they compare their living conditions to the communities living in Zahle, the rich capital of central Bekaa.

Celine, a resident of Zahle, clarifies that the smell never reaches there, the river boundary is fenced in most places, and water accessibility and pollution issues are fixed fast. In Bar Elias, official exams that were going to take place in the local school were relocated to another one so that students from other villages like Zahle do not get exposed to the smell. This public school overlooks the river and hosts the students of Bar Elias that breathe the river stink on a daily basis. In Qaraoun, the women express the injustice that they endure, as they are the last one on the line of the river where all the filth is carried from other places to accumulate in their Lake.

Stories of adjustment: Tuning a broken instrument

To clean water and food...

Women of the Litani have adopted measures to reduce their exposure to pollutants. To clean polluted water, the women in camps boil it on firewood, especially if they want to bathe or give milk to a baby. Contaminated vegetables are sold around the Litani and across Lebanon, but women and communities try to avoid vegetables if they can afford traveling to buy it or if they can plant their own.

Women of Houch El Harime list the market locations that they avoid for vegetable shopping; these include Qobb Elias, Taanayel, Al Marj, Al Haouch, Maqseb, Jdiita, and Al Mansoura. Instead, they go to *the Sahl* agricultural lands and pick the vegetables themselves from the greenhouses. Women—as they explained to me - can recognize the smell and texture of contaminated vegetables, when irrigated with sewage the parsley, rocca and other greeny leafs look weak and smell like rotten; and eggplants are too soft and sloppy. They would know if potatoes were harvested from the Litani premises if their size was ‘too big’. Many women clean vegetables thoroughly with vinegar and salt. The meats are cooked well, and Mayada, from Houch El Refqa who always takes extra measures, even boils the chicken twice before adding it to the meal.

Despite this acquired knowledge, women know that they cannot always trust the sources and are always at risk of buying food that would harm them. And in fact, while most bacteria, viruses and fungi can be contained through washing or cooking at high temperature, such practices cannot protect against heavy metal pollution.³⁰

³⁰ Heavy metals bio-accumulate in vegetables and bio-magnify in the body of animals, including humans (Madi 2012; Maatawi 2021). Pollutants such iron, lead and zinc ingested through food remain and augment in the human body to cause detrimental long-term health effects.

Compensating for the right to nature

Many women of the Litani create their own version of a nature-rich territory, despite living in a nature-deprived environment. They safeguard and landscape the small spaces that they have control over; they plant trees and decorate with pots of flowers.

Hoda from Bar Elias shares how her green enclosed balcony triggers envy in others, and how family and friends have found refuge gathering there, where one hundred pots of indoor plants and flowers are carefully cared for. Bouchra, who has been living in the camp of Houch el Rafqa for two years now, has created a green barrier for her terrace. She asked her husband to build a longitudinal atrium that she filled with decorative and useful plants, “this one makes the perfect broom!” she shared as she pointed at the green bamboo that she cuts, dries, and assembles to use as a cleaning tool.

Herbal medicine

“The ‘Khebayze’³¹ is used as a pad, it relieves the pain.” – woman from Al Khodr Tribe, Houch El Harime

To reduce the burden of expenses, women do everything they can to cut the medical costs.³² To cope with the current increase in prices, medicinal plants replace pharmaceuticals. In Houch el Refqa, the eldest women of the camp are turned to for advice: they told Elham, for example, to replace rash cream and pills with Khebayze, boiling it, drinking a cup, and using a towel soaked with the mixture and applying it to the rash.

Khebayze, foraged from vineyards and plains, serves multiple purposes. It is said to act as an antibiotic, and also relieve inflammation. Some drink it when

³¹ Khebayze is the common Arabic name of the common Mallow, a *Malva* spp. (Sharifi-Rad 2020), foraged and consumed for its medicinal properties as well as food, as salad, or cooked with onions and garlic and used as bakery stuffing.

sick; some gargle with it if they have an abscess in their mouth. Mint and parsley teas are good to relieve from period cramps, “it is better than medicine!” said Kamle while the group of women agreed. To relieve flu symptoms, thyme tea is prescribed to alleviate chest pain, and mint and orange tea reduce nose congestion, and mint with cumin is given for stomachaches.

Knowledge about herbal medicine gives an important social role to elderly women who give essential advice for pain alleviation. However, sickness from bacteria and viruses that have evolved resistance to medicine, and sickness from cancer, cannot be cured through traditional methods. Traditional knowledge, though romanticized, cannot substitute for a healthcare system and access to medication and doctors.

Awareness, mobilization, and perception of responsibility

Who are the polluters?

The river canal contains all the possible liquid and solid waste of the Bekaa. The causes of river pollution are put under four categories: wastewater, industrial, solid waste, and agricultural runoffs (Sherif and Fadi 2013). Women are aware of the sources of pollution, especially sewage, industrial waste and solid waste, while agricultural runoff is not identified as a source of threat.³³

The women explain that the sewage of each region is usually dumped at the river-end of that village, which is normally where the other village boundary starts, creating a chain of sewage effluents that, during the drought season, densely and very slowly flow in the river and in municipal storm-water canals. Wastewater discharge contains raw or untreated sewage that comes from

³³ Little awareness is present on the impact of bad agricultural practices from the excessive use of pesticides and fertilizers, and as previously mentioned, farmers are perceived to be victims of the pollution.

municipal networks, and to a lower degree and since a more recent time from Refugee camps.

Industries using hazardous chemical mixtures to produce a product or to use as detergents dump their effluents in the river.³⁴ While many industries do this, community members, especially ones living in Houch El Refqa repeatedly mentioned by name that the biggest industrial polluter in the region is Liban Lait, according to Doha “the matter was bigger than to be handled only by the people in this town, it came down to lawsuits that wanted to shut down this industry that is highly polluting.”

Solid waste dumped directly into the river comes from medical centers and hospitals, slaughterhouses, restaurants, and industries, creating a mixture of objects that float on the river’s water, clogging the infrastructure. “It’s filthy, the trash accumulates all the way from Anjar to here (Houch el Harime).” The waste sinks to the river and lake floor. Requiring years to disintegrate, it ensures a permanent source of contamination.³⁵

“The Litani River became a landfill...When the river ran dry people started using it as a landfill. People driving their cars would throw their garbage bags from the car into the river.” – Fatima Hayek, Bar Elias.

Community members blame the government for encouraging municipalities to dispose of their sewage in the river. The women say that there are sanitary ways that could have been easily adopted, by for example relying on the simple

³⁴ Kawthar told the beautiful story of women of a lake in Japan: the lake was so big that communities thought that it would regenerate itself, black water and grey water were being dumped, when pollution became evident to the community, one woman found that a detergent making industry was using and dumping phosphorous in the waters. She mobilized other women who started making phosphorous free soap, and as the community became self-sufficient, the industries started losing money.

³⁵ According Sarah, the lake is said to have become hyper-eutrophic meaning that the excessive amounts of pollution have made ample amounts of nutrients available for algae to endlessly grow on the surface.

method of septic tanks, or accounting to link the networks to operational water treatment facilities.

On the other hand, wastewater treatment facilities are costly to operate and require a high fuel expense, which leaves the community and experts cynical of the capacity and willingness of industries and municipalities to properly run them. This is especially true in the case of private businesses that, according to a water expert who worked on the Qaraoun pollution, would turn off their treatment units to reduce their production costs and increase their gains.³⁶

Whenever asked what is being done about the pollution, repeatedly, the women said: “they stole the money.” In Houch el Refqa, the solution to the pollution currently rests before the eyes of the community. They see on a daily basis the long sewage network silos that the CDR the entity responsible of most of Lebanon’s infrastructure work and maintenance (Council of Development and Reconstruction) placed next to the river since 2020.³⁷ The women in Qaraoun mentioned that the funds are being misallocated and many projects do not deal with the problem itself but are being applied at the Lower Litani Basin.³⁸ Corruption at all levels was mentioned to be the ultimate reason why the pollution was allowed, and solutions have not yet been put in place.

The current national crisis is leading to the aggravation of pollution and the loss of previous abatement efforts. While LRA was empowering municipalities and applying its authority to penalize polluters, the lack of budget to pay for human resources jeopardizes their ability to supervise as officer and field

³⁶ Stated by community members and experts.

³⁷ In 2019, the LRA issued a letter to CDR mentioning that they are not abiding by Law 63 that requires projects related to networks and treatment stations be accomplished with 7 years of the law’s issuance (Holtmeier 2019)

³⁸ Combatting pollution at the Lower Litani Basin has been in progress since its planning phase in 2020 (ELARD 2020). According to a water expert it is easier to tackle pollution after water crosses the Qaraoun lake and the hydropower station, especially that in the lower basin sewage networks are better managed .

workers are understaffed and underpaid, giving them little motivation to properly do their job.³⁹ The law enforcement campaign that LRA has been applying since 2019 is at danger to be reversed.⁴⁰

With the increased demand for local products, small-scale industries are re-operating without accounting for their waste. These small industries either directly dump in the river or direct their industrial water to municipal treatment plants, which disrupts their functioning, as these do not have the appropriate technology to treat chemical waste.

“I guess they started reopening again after the crisis had started, because the pressure on local production had increased. But here's the question, are they still doing documentation on those regulations, or did they stop since the country is in chaos? There is common mindset in Lebanon, that there are more important matters than ‘this one’ considering the current situation.” – Sarah Dia (28), Water expert.

Women hold the people in power responsible of the pollution, as their negligence, greed and corruption have caused deaths and sadness. According to them, anyone holding a position of authority is to blame: the government, the political parties, the mayors, LRA, and owners of industries.

As the state is very centralized, marginalized regions, like Bekaa are not recognized in development plans of the governments. They spoke to me as “you”, or “them”, they referred to Beirut and Mount Lebanon as “there, where you come from,” and compared their forgotten and destroyed hometowns to my “well-managed” cities and villages. Women in Bar Elias stated that successive ministers and municipalities cover up for polluters and offer misguided

³⁹ Personal communication with a water expert

⁴⁰ The LRA previously forced big industries to operate their treatment plants and prohibited small and medium size industries from dumping in the river, forcing many to close their businesses. Stories of Litani River Authority achievements can be traced through their Twitter account.

solutions that bring them profit.⁴¹ Women in Qaraoun hope that the new minister Nasser Yasseen, who is from the region, finally gets hands on the matter and supports LRA's quest.

Mobilization and the role of women

Women see that awareness and education are the most important factors to protect against harm from pollution and mobilize towards change. Women discuss the pollution with each other, especially during morning visits, and then talk about the issue in their homes. This is especially true for mothers who teach their children how to adapt to their living conditions, home education makes up for the lack of environmental education at public schools. As they mention, care, and sense of responsibility drive the need to spread awareness.

Women whom I met and that hold professional positions, concentrate their resources to identify priorities, and act as mediators and communicators. Rayyse Nina from Bab Maar – who reached a position of mayorship as opposing parties appointed her to find common ground – recognized access to clean water as an urgent concern and maintained the village water spring. Sara played the role of mediator and knowledge sharer between a private company, a public institution (LRA), and academia (AUB), before moving into youth engagement in water issues with Waterlution.⁴² Kawthar who worked with a local organization that was contracting water providers for ITSs developed a handy water monitoring mechanism that the contractors can use and ensured a raising awareness in the Refugee's community's knowledge of water quality issues.

⁴¹ In Bar Elias, the mayor is said to benefit from polluters, probably through bribes. While in the more general sense, funds to abate pollution are given to agencies accused of mismanaging national funds like the CDR.

⁴² <https://waterlution.org/>

Three major mobilization efforts were recorded from discussions. In 2017 protests of Bar Elias were the first registered community mobilization effort against the pollution. That year a 13-year-old girl named Asmaa died from cancer, which shook a community that was already dealing with series of funerals and news of cancer incidence. School students protested under the slogan “A child’s plea” while activists attempted to backfill the river and water canals passing by Bar Elias.

According to the women, people from Bar Elias and Houch El Refka are the only people who spoke up that year, protested, and even blocked roads, of which the Beirut-Damascus International Highway. Then later in the beginning of 2019, protests in Houch El Refqa had become usual, and with every cancer death people went to the streets. Women participated in the Houch El Refqa protests when the crowds were big. According to them, they felt more at ease to attend with their families. And a couple of months before the October 17 Revolution, activists in Qaraoun shut down water irrigation canals that were transporting the smell of sewage and industrial waste.

The women shared that during that time, and up until today, the LRA headed by Sami Alawie was supporting the community and proved to be active legally, and especially through media communication. And while the LRA actions were maintained, the protests and mobilization efforts were overtaken by the 2019 October Revolution.

The Revolution of 2019 brought hope to women, who say that young people became motivated to work and stand up for their civil rights.⁴³ Women who participated in the protests said that they played an important role in the Revolution as they encouraged their children specially daughters to participate,

⁴³ In Houch El Refqa, the two major political parties, Amal and Hezbollah, had lend vocal support to the mobilization in 2019 but then later suppressed it when the October 17 revolution started as to not be affiliated with it.

“all members of families participated.” The protests are said to have shed light on major environmental issues in Lebanon which included the Litani river pollution.

“I felt enraged and empowered, like I would punch anyone who gets in my way, I was angry. We just wanted attention, someone to look at us, someone to find us a solution.” – Mawada, Houch El Refqa

Those who lead the protests were, according to the women, “all the educated people and the people who could do something,” this was especially pointed out in Bar Elias and Houch El Refqa.

The protests were in fact inclusive to women who belong to privileged families, and women whose partners were vocal and active in the protests. However, that left behind many who felt that the locals’ protests did not concern them. Nada and her daughter Nathalie who used to live in Beirut – Nada’s husband is in the military and is mostly absent – both said that they have not adapted to living in the village yet, they do not get involved and most of the time do not know if anything collective is happening. Women of the tribe in Houch El Harime, and women in Syrian camps did not participate in any mobilization effort; the tribal men don’t allow it and the Syrians feel entirely marginalized from the dialogue.

Disadvantaged women like the tribal women of Houch el Harime and Syrian refugees, who happened to also be socially and financially unable to adopt sustainable alternatives for the pollution, felt excluded from the protests.

“They consider us foreigners and we cannot do this [participate in protests].” – Elham (21), Syr, Houch El Refqa

During the period of local and national mobilization, women felt powerful as the general environment gave them an opportunity to publicly share their grief and anger.

Social media was a powerful tool used by women to freely propagate revolutionary content and raise awareness on the Litani pollution, this was especially true for those who could not attend protests in person like housewives with little children. Women were also at the forefront of news outlets telling real-life stories as they were less threatened by political and social ties than men.⁴⁴ “When they wanted to ask questions in a household where there is a cancer patient, it was always the woman who responded to the questions, the man didn't want to be shown on television or didn't even want to talk.”

According to the women, local mobilization efforts were inconsistent, and according to Souheila from Houch El Refqa, activities depended on the wish of political parties. Many repeated that now, “no one is actually doing anything” to answer the community’s needs. This creates a perpetual loop of hopelessness and surrender.

“I felt like crying, honestly, we actually went two times, it was really crowded, but it was all in vain, sadly. A journalist called Hijazi came and talked about the pollution in our village and how it’s the most affected, they put it everywhere on television and social media, how cancer was invading our village, but nobody responded, of course.” – Mounira Y (33), Houch el Refqa

The backlash of activism: Reputation, and socio-economic relations

Activists and the media are thought to ruin the reputation of the villages and disrupt social relations. People from the community especially business owners blame activists and not the polluters. Vegetable markets, owners of recreational areas near the lake, and small industries that the LRA was able to control and persecute in the past two years, have ended up threatening activists and their

⁴⁴ Souheila as well as women from Houch El Harime mentioned that men work at the very industries that cause the pollution. Men are possibly also closer to political parties that control the protestor’s discourse.

families. Advocates are thought to ruin livelihoods as farmers and markets that sell polluted foods were defamed by the media and avoided by the community.

The details of types of long-term health effects like reproductive health problems and cancer are also avoided. Many respondents averted to mention or elaborate about cancer, despite some of them having lived through experiences with family members, many others said they felt hopeless about it. This was especially true in Qaraoun village, where the lake strikes controversy, as its presence was, until not so long ago, glorified as a source of livelihood and leisure. Cancer rates are kept secret, and despite the community's awareness of the link between cancer and the pollution, the current discourse is erasing the link and the high numbers from the collective memory of communities. Members of neighboring communities stopped marrying people from villages close to the Litani.

In fact, reproductive dysfunctions and congenital anomalies attributed to pollution were mentioned to me back in 2019 but were not mentioned once this time.⁴⁵ From the community's point of view, women were no longer marrying men from Bar Elias and Houch El Refqa as to not move near the river, get cancer or marry someone that might have cancer. The relationship between pollution and death is well talked about, whereas the details of the sequence are blurred from the discussion.

Currently, the communities of the Litani are trying to wash away the negative reputation, especially viewing the worsening economy. This has been so far successful as the communities say that both COVID and the economic situation distracted them from their daily environmental injustice and struggle.

⁴⁵ Environmental pollution from organic chemicals and heavy metals disrupts the body's endocrine (hormonal) systems and cause reproductive health issues, especially in women, leading to possible birth defects (Al Noaimi, et al. 2021; Canipari, De Santis and Cecconi 2020; Unites States Environmental Protection Agency 2021).

COVID has accelerated the deaths of those with low immunity and those with cancer and the economic situation makes them prioritize needs that are even more basic than the right to a clean environment.

Conclusion

The incapability to be, to act, and to defend one's rights to life is a physical representation of oppression. A careless and greedy system has allowed, for years non-end the poisoning of land, plants and animals, to an extent that stretches beyond the 170 m2 long river and reaches all corners of Lebanon.

As keepers of the house, and keepers of the land, women of the Litani adapt and maintain their surrounding while they feel incapacitated in the face of purposeful neglect. As they said, the problem is way too big to be managed at its actual scale, and there are multiple layers to resolve. Doha shared that:

“No one is able to bear this any longer. [If I was in charge] I'd continue the project that was stopped, I'd change the pipelines and remove them from the soil, I'd invest in farmers who know how to make the soil grounds healthier, I'd try to look for the sick and try to help them as much as I can”

And all one can do is work to fix the damage in bits and pieces, each starting in their own territory, “just like we do in our own houses”.⁴⁶ Their power to adapt, manage themselves and share their strength with each other within the difficult circumstances is greater than one can imagine.

⁴⁶ Ironically, the management of industrial pollutants and effluents is officially referred to as Good House Keeping (GHK) and official manuals guide the identification, evaluation and management measures to reduce the environmental impact and related community health effects of an industrial process. <https://www.epa.gov/sites/production/files/2015-11/documents/goodhousekeepingbusiness.pdf>

As I witnessed their enthusiasm to host me and discuss a matter that is greatly dear, the heavy conversation on death and loss was lightened while its weight was shared. The women that I talked to left me with a similar note, they hoped that their stories shake the current status quo by giving them authority and power to act, by mobilizing communities to unite and by pressuring whomever is responsible of shaping their living conditions into becoming one that is livable.

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