

Pre-read for Shelter Workshop

Workshop date: February 17, 2021

Lebanon is facing several challenges. Amid a large financial crisis, the Covid-19 pandemic reached Lebanon and in the summer of 2020 a warehouse storing a large amount of ammonium nitrate exploded in the port of Beirut. The result was tremendous. At the same time, the densely populated Beirut is facing the effects of climate change. Due to the lack of green areas and highly concentrated infrastructure, the city is suffering from the effects of the so-called Urban Heat Island. Energy consumption is increased, the emissions of air pollutants and greenhouse gases has worsened and human health and living quality is impaired. Another climate effect occurs during the wet season. Climate change goes with heavy rains and together with the snowmelt, the city's current drainage system is literally flooded. The challenges underline the importance of meeting **SDG 6: 'availability and sustainable management of water and sanitation for all'**.

The neighborhoods most affected by the August Blast also experience the effects of climate change. Gemmayzeh, Rmeil and Mar Mikhael are high concentrated neighborhoods with very little green. The lack of green urban spaces in the focus area also means little public places for citizens, visitors, and passers-by to make use of such spaces for their leisure and well-being. This challenge urges for targeting SDG 11: 'make cities and human settlements inclusive, safe, resilient and sustainable', and in particularly **SDG 11.7: 'provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities'**.

This has led to UN-Habitat to examine how to design water-sensitive urban solutions that fit the focus area (see map below for its boundaries which center around Gouraud and Gemmayze street). In the post-disaster recovery Water Sensitive Urban Design (WSUD) is believed to contribute to SDG 6 and 11, while increasing community resilience and improving life quality in the area.

In the guidelines report still under development, several 'idea sparks' are presented. To illustrate the idea of Water-Sensitive Urban Design (WSUD) and how this can be fitted into the focus area, two examples are highlighted here:

1. Parklets in Gouraud street

Parklets are sidewalk extensions that provide more space and amenities for people using the street. Gouraud street currently has a lot of parking opportunities and the traffic situation in combination with the often full or missing sidewalks create unsafe situations. Introducing parklets do not only create an opportunity to increase space on the sidewalks, but also to:

- reduce stormwater run-off to mixed sewer.
- increase local rainwater retention and storage.
- increase green spaces which also have an amenity value.

This entails:

- Removing impermeable surfaces to replace with more aesthetic permeable alternatives.
- Reducing width of road to test temporary locations with community engagement.
- Adding soft landscaping to the areas to provide partial green surfaces.
- Incorporating materials from the blast to create street art or hard landscaping.

The advantages of using Parklets

- They are scalable and cost effective solution.

- They can incorporate and recycle materials from the blast.
- They do not require extensive earthworks.
- They can be a transition instrument from temporary to permanent.
- More likely to create community engagement and ownership.

2. Saint Nicholas Staircase

Saint Nicholas Stairs is one of eight major stairs that stretch along the Gouraud-Armenia Street connecting the lower neighborhoods with the uphill areas. It is a popular stairway, located in the cultural area of Rmeil and is an important part of the social fabric, as it is not only a transitory space but also a gathering space to bring together citizens, visitors, and tourists in formal and informal events.

Considering there are 8 major staircases, this staircase can be considered under-utilized for its primary purpose. The existing paved surfaces do not allow for infiltration and it does not contain green areas. The idea spark for Saint Nicholas staircase therefore aims to:

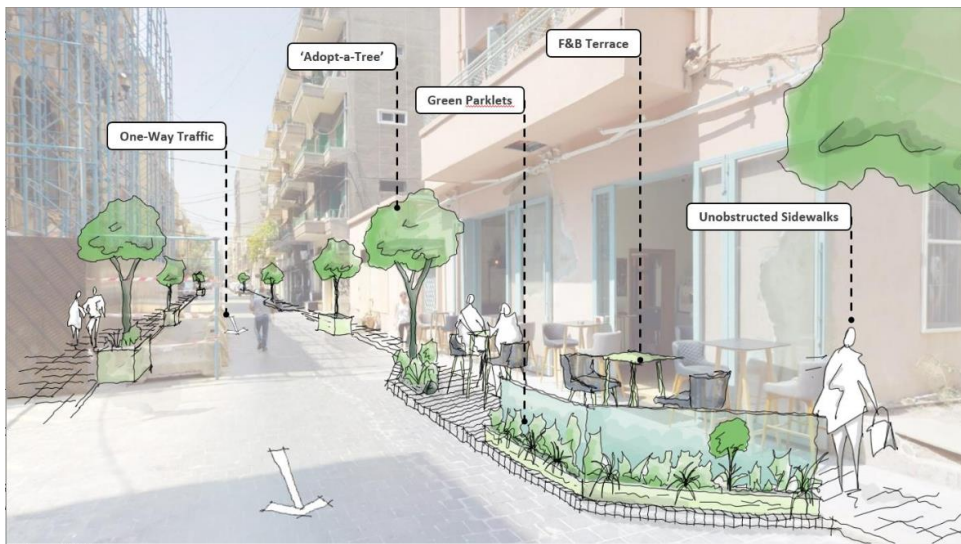
- Increase communal spaces
- Increase green spaces
- Decrease heat island effect
- Increase water retention & decrease risk of flooding
- Reinforce (heritage) identity of area.

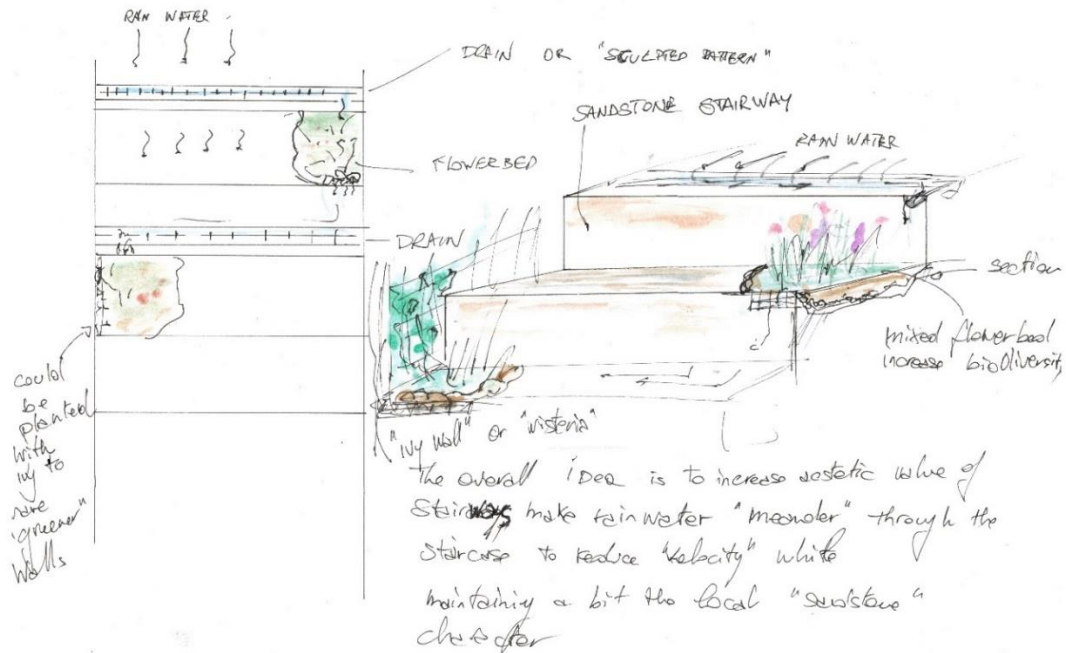
This entails:

- Increasing the water drainage and utilize stormwater in a meaningful way by installing a network of “sculpted” channels (see images below for an impression on how this could look). Within the staircase, water can be retained within green pockets with variable depths
- Increasing the green coverage on the stairs
- Add ‘pods’ to encourage footfall while giving users the infrastructure needed to maximize their spatial experience (see images below for an impression on how this could look).

Besides the (technical) deliberation on the idea sparks, the guidelines also propose a step-by-step community engagement process. This acknowledges the community for their local knowledge, experience and expertise. With their input, the solutions can be codesigned in a way that they are also safe and inclusive. The community may also point out unwanted effects and help prioritize the solutions and areas based on their needs. Besides the community engagement also all other relevant stakeholders will be involved in a pilot project, in the steering committee, expert group or otherwise.

The workshop, scheduled on the 17th of February, is also aimed at giving you an opportunity to contribute. We would be very happy to present the concepts and idea sparks mentioned above and ask your feedback on them. What opportunities you see, what challenges? What would increase feasibility? Please join us on the 17th, from XX-XX AM... DETAILS ON WORKSHOP.





VEA #1

