## **Gaining Ground in Lebanon**

Feature | by Rea Haddad | 01.07.2020



Workshop on vertical agriculture. Photograph: Rea Haddad

The economic crisis threatens the sustenance of Lebanon's population. Could a growing number of local agricultural initiatives offer a potential solution to the country's long-term food security?

"Walk on the edge and mind these plants, they're hummus," agroengineer Toufic Gharzedine warns the participants of a permaculture and sustainability workshop at Eco Khalleh.

The group then pauses next to a tall mulberry tree overlooking the chickpea field. Gharzedine invites the participants to grab a handful of

the toot (the Arabic name of the fruit) from the blanket under the tree. "Yalla! Have a taste. They're organic," he says. Face masks lowered, some participants sample the harvested mulberries and share them with the others, while the more daring climb up the tree to collect the freshest.

Eco Khalleh is an agro-ecological and organic farm tucked away in Baakline, a village in the Chouf mountains of central Lebanon. Toufic Gharzedine, along with a fellow agriculture engineer, a few farmers and even some chefs all work here on an almost 14,000-square-metre plot of land, which is owned by Shady Hamadeh, the co-founder at the Environment and Sustainable Development Unit (ESDU) at the American University of Beirut (AUB). Here visitors can learn everything from permaculture and ecosystem management to minimising humanity's footprint and the art of letting nature run its course.

## The World Bank estimates that poverty rates will increase by at least 50% in 2020

Nowadays, however, farming at Eco Khalleh has become much more than just about preserving the environment. And today Gharzedine and his colleagues in Baakline find themselves at the forefront of Lebanon's struggle for survival.

After decades of corruption and financial mismanagement, Lebanon stands on the brink of economic collapse - the Covid-19 pandemic has left the country teetering on the very edge. If unchecked, this situation will have dire implications for the country's food security, since Lebanon, which was once considered one of the region's breadbaskets, now imports around 80% of its foodstuffs, including agro-industrial material. The problem could worsen further still because major agricultural

producers such as Russia and Ukraine have curtailed their exports during the pandemic. According to the World Food Programme (WFP), 49% of Lebanese are worried about food security, and inflation has led to a 55% rise in the cost of food staples. The World Bank estimates that, as a result, poverty rates will increase by at least 50% in 2020.

The agriculture sector currently only contributes 5% to the GDP and comprises 8% of the labor force. Farming in Lebanon is heavily reliant on industrial fertilisers which experts regard as a health hazard for producers and consumers alike. As a result of the recent crisis more and more people in Lebanon are now turning to small-scale farming and sustainable agriculture.



Animals at the Eco Khalleh farm. Photograph: Rea Haddad

Ecological farming, such as that practiced at Eco Khalleh, offers one way to increase local agricultural output and by extension the country's food security. Eco Khalleh consists of an eco-farm with livestock (goats, sheep, and chicken), crop units (chickpeas, tomatoes, barley, chilis, apples,

lettuce, cucumbers), a vermiculture unit for composing, an alternative energy unit, an eco-processing unit, an eco-cultural unit, and a rural tourism unit. Eco Khalleh also serves as an education and training centre, for students of all ages, as well as for farmers and laborers.

"We take care of our goats and chicken in a free range environment and they provide us with natural fertilisers for our fruits, vegetables, and aromatics," says Gharzedine: "We've even set up a sprouting room to produce feed for the animals on the farm."

He learned the importance of agriculture while still at primary school, during a class solely dedicated to nature. But unfortunately such classes are a rarity in Lebanese schools these days. Lea Salameh, a 22-year-old food security graduate student at AUB regards the coronavirus pandemic as a wakeup call in this regard.

"Nobody understands the importance of agriculture until they realise that so many things are directly linked to the very seed that is planted in the farmer's soil. The whole supply chain until the food is presented to you in a restaurant or home depends on the farmer being able to meet production needs," Salameh says: "It took me, as a student in the field, a long time to realise that my degree can actually be put to good use. Nobody chooses to focus on local agriculture until our survival depends on it."

Salameh sees the current crisis as a reminder that consumers may not always have so much choice at their local supermarket. Unable to buy their favourite cereal, people may be forced to think about sustainable agriculture and small-scale production.

## "For decades, agriculture has not been at the top of the government's list of priorities"

Innovations in agriculture may be able both to improve food security for both rural and urban populations and restore the sovereign figure of the farmer that has long been discredited. Rachel Bahn, the coordinator of the AUB's food security programme, says: "For decades, agriculture has not been at the top of the government's list of priorities. But the crisis has caused the government to look again at agriculture as 'the real economy'."

This move comes in the context of more and more local and international institutions turning their focus to increasing agricultural production. Over the past few years, WFP has run so-called "food for asset and training" programmes, in which deprived women and men are paid to learn basic farming techniques.

In 2019, women's cooperatives from across Lebanon participated in WFP's food for training programme in partnership with Polish Center For International Aid. The cooperatives which took part were selected for their specialisation in mouneh, a traditional Lebanese method of preserving agricultural produce. "We managed to strike an export agreement between six Lebanese co-ops and the Polish market," explains a spokesperson from the livelihood programme: "As part of the activities the women learned technical skills including food production, branding, labeling and digital marketing. And they even visited a major food fair in Poland. Their shipment reached Poland two weeks ago and now we are going to see if they have a market there."

The AUB's ESDU has launched another initiative called Ardi Ardak, or "my land is your land", which provides negotiating training and creates market opportunities through their extensive network of farmers markets, organic shops, events, e-commerce, and home deliveries. Eco Khalleh is one of the sustainable spaces which benefit from Ardi Ardak's network of consumers.

Then there is Zari3et Albi, or "the seed of my heart", a new campaign which aims to boost small-scale farming by establishing a helpline for anybody who has questions on the subject. It is the brainchild of filmmaker Nadine Labaki and her husband, Khaled Mouzanner, and is supported by a network of agriculture non-profits and social businesses.

It is not people in rural areas who are exploring new ways to fight food insecurity. Beirut under quarantine restrictions has seen a flourishing of rooftop urban gardens. In the neighbourhood of Furn El Chebbak two rooftops, two balconies and two gardens have become full-fledged examples of urban agriculture. This has been the work of Kon, a grassroots initiative that was born during the thawra, the so-called revolution of 2019, helping people reclaim their domestic spaces to cultivate crops to share between themselves.



Agro-engineer Toufic Gharzedine explains the lines of crops in the greenhouse at Eco Khalleh.Photograph: Rea Haddad

"It took us two months of research and interviews with agro-engineers to learn methods in hydroponics, traditional agriculture, and permaculture," says Souad Abdallah, Kon's founder, whose day job is in theatre management.

"But what we value the most is the exchange of knowledge between one another. The main goal of agriculture is to attain a sense of community, something Beirut has lost since the civil war. During these hard times, planting helped to lift our spirits and improved our social lives by bringing people together".

The appetite for new ways of local production is undoubtedly growing. But will it be enough to help Lebanon address its future food security challenges?

The costs of entry into Lebanon's agricultural market remain high for local small-scale producers. "The market is controlled by just a few giant retailers who dominate and squeeze the prices, so that farmers can often

hardly cover their production costs," says Ali Chalak, an associate professor in agriculture at AUB: "Even though they're considered self-employed, farmers don't practice all of their entrepreneurial functions. With market monopoly, terms of trade are unfavorable to them." These farmers often end up heavily indebted to suppliers and middlemen who provide them with fertilizers, pesticide, and machinery. "They receive only a mere fraction of the price and try to find other ways to diversify their livelihoods to survive".

## More than 100,000 hectares of Lebanese land have been left fallow over the past two decades

Small-scale farmers in Lebanon are creating circular economies to sustain themselves. But the output of these cooperatives over the next few years is likely to be minimal in comparison to the dietary needs of the bulk of the population. According to Chalak: "The government needs to actively assist small-scale farmers, so they're able to make a decent living. A good start would be the establishment of marketing boards, price support, land redistribution, farmer protection."

More than 100,000 hectares of Lebanese land have been left fallow over the past two decades. A UN Economic and Social Commission for West Asia (ESCWA) 2016 study estimates that investment in proper agricultural infrastructure would employ one quarter of the national labor force and constitute 80% of economic input in rural areas – a much-needed winwin for the country's food and job security. Bahn believes that this would be "a bit of a safety net. Because I can eat from the land, but I cannot eat from my bank account."

While Chalak stresses the need for change within the current agricultural context, he acknowledges the importance of the efforts of the new organic farmers: "They're changing people's mindsets, but nothing except the state can change the equation. The state has to make the necessary political changes to reorganise the farming community in Lebanon." In short, Chalak believes that to save themselves Lebanese need to reconnect to their land.

Back at Eco Khalleh, the farm in the Chouf mountains, participants mark the end of their tour with a colourful feast. On offer is traditional mouneh (preserves and pickles), kichek manakish (fermented cracked bulgur wheat on baked dough), fatayer bi sabanekh (small pies filled with spinach and thyme), ejjeh (omelette cooked with vegetables), and of course fresh mulberry and rose syrup. While the visitors tuck in, Gharzedine speaks of his optimism about his country's eco-agricultural future: "Lebanon's climate and geography are so rich that they are abundant with opportunities. We could cultivate different produce depending on the season and location. Our next bet here is avocado."

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