

AMERICAN UNIVERSITY OF BEIRUT

NEGOTIATING AGRARIAN CRISIS IN THE LEBANESE
MARGINS: THE CASE OF BAALBEK-HERMEL FARMERS

by
HALA AMER AL AHMADIEH

A thesis
submitted in partial fulfillment of the requirements
for the degree of Master of Science
to the Rural Community Development Program
of the Faculty of Agricultural and Food Sciences
at the American University of Beirut

Beirut, Lebanon
September 2022

AMERICAN UNIVERSITY OF BEIRUT

NEGOTIATING AGRARIAN CRISIS IN THE LEBANESE
MARGINS: THE CASE OF BAALBEK-HERMEL FARMERS

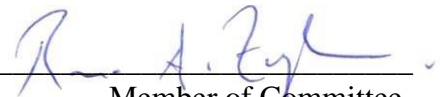
by
HALA AMER AL AHMADIEH

Approved by:



Dr Ali Chalak, Associate Professor
Department of Agriculture

Advisor



Dr Rami Zurayk, Professor
Department of Landscape Design and
Ecosystem Management

Member of Committee



Dr Shady Hamadeh, Professor
Department of Agriculture

Member of Committee

Date of thesis defense: September 1, 2022

AMERICAN UNIVERSITY OF BEIRUT

THESIS RELEASE FORM

Student Name:

AlAhmadih Hala Amer
Last First Middle

I authorize the American University of Beirut, to: (a) reproduce hard or electronic copies of my thesis; (b) include such copies in the archives and digital repositories of the University; and (c) make freely available such copies to third parties for research or educational purposes:

- As of the date of submission
- One year from the date of submission of my thesis.
- Two years from the date of submission of my thesis.
- Three years from the date of submission of my thesis.



September 6, 2022

Signature

Date

(This form is signed & dated when submitting the thesis to the University Libraries ScholarWorks *DELETE THIS WHEN DONE*)

ACKNOWLEDGEMENTS

First, I would have never done this without the support of my family. To my mother, father, and brother, thank you for your continuous encouragement over the years and for always believing in me, you made me passionate about pursuing my higher education. Second, I would like to thank my University, the American University of Beirut, for being my second home. You have provided me with memories, friends, and experiences that I will forever cherish.

Finally, I would like to extend special thanks to my advisor, Prof. Ali Chalak, for helping and guiding me through my master's degree.

And to my committee members (Prof. Rami and Prof. Shady) and to every person that helped me, thank you.

ABSTRACT OF THE THESIS OF

Hala Al Ahmadih

for

Master of Science

Major: Rural Community Development

Title: Negotiating Agrarian Crisis in the Lebanese Margins: The Case of Baalbek-Hermel Farmers

Despite its illegality, cannabis remains a profitable crop for small farmers. Its production remains concentrated in the South, where no market-distorting subsidies are provided. It is primarily an export crop that generates desperately needed hard currency. Cannabis farming is a coping mechanism for the majority of small farmers in the Baalbek-Hermel region, allowing them to survive the agrarian crisis and continue farming, which is critical to their livelihoods. However, cannabis production appears to adhere to the same economic principles as any other commodity traded in capitalist markets, resulting in a new strain of capital. Because of the prominent laws of capital competition, tribal relations, extra-legality, and the introduction of new techniques such as irrigation, what used to be an easy crop with low costs has become a demanding costly crop and therefore the profit is getting significantly less.

TABLE OF CONTENTS

| | |
|---|----|
| ACKNOWLEDGEMENTS | 1 |
| ABSTRACT | 2 |
| INTRODUCTION | 5 |
| 1.1. Background and problem statement | 5 |
| 1.2. Objectives and research questions | 7 |
| 1.2. Significance of study | 7 |
| LITERATURE REVIEW | 9 |
| 2.1. Farming in developing countries | 9 |
| 2.2. Lebanon’s cannabis commerce, usage and production throughout history | 11 |
| 2.3. Importance of cannabis to Northern Bekaa farmer..... | 12 |
| 2.4. Lebanon and Morocco | 14 |
| 2.4. Illegality as a means of evading both capital and the state | 18 |
| METHODOLOGY | 20 |
| 3.1. Primary data..... | 20 |
| 2.2. Analyzing the data | 22 |
| RESULTS | 24 |
| THEMATIC ANALYSIS..... | 27 |

| | |
|--|-----------|
| 5.1. Planting cannabis as a form of resistance | 27 |
| 5.2. Increased costs | 29 |
| 5.3. Planting cannabis to resist the agrarian crisis | 30 |
| 5.4. Planting other alternatives to cannabis | 31 |
| 5.5. Problems with the law..... | 32 |
| 5.6. The future cannabis planting in Lebanon | 33 |
| DISCUSSION | 36 |
| CONCLUSION | 45 |
| REFERENCES | 48 |

CHAPTER 1

INTRODUCTION

1.1. Background and problem statement

The issue over the legalization of cannabis in Lebanon has recently resurfaced in the national media, bringing to light the widespread production of this crop in Baalbek-Hermel. This argument reveals an agreement among all loud groups that cannabis production in that region indicates a catastrophe that requires immediate attention. Yet, often, this argument blames the crisis on the cannabis plant, as well as the illegality that surrounds its growth, processing, and trading. In other circumstances, cannabis cultivation and the profits it provides are thought to be fueling extremist groups' power. Any mention of the agricultural crisis, which has disproportionately affected this region and driven many farmers to abandon food production in favor of this sort of agriculture as a 'fix' for their crisis-ridden livelihoods, is absent from this discussion (Saade, 1973). To put it another way, popular cannabis cultivation narratives tend to leave out an examination of the political economy of agricultural change, which would reveal the political and economic drivers and consequences of rural transitions (see Bernstein, 2010).

As a result, some have proposed substituting high-value-added crops with cannabis, while others have supported legalizing its growing, with potential links to the pharmaceutical business and export to high-income nations where usage is allowed. Both parties appear to be missing the point by claiming that farmers in general, and cannabis growers in particular, want for complete integration into mainstream and high-value-added commodity chains as a way out of their agrarian problem if given the opportunity

(McMichael, 2013). Indeed, this ignores the prospect that, in times of crisis, farmers may seek the polar opposite: to protect themselves from the vagaries of conventional markets and/or to build alternative markets (Ploeg, Ye & Schneider 2012). It also implies that integrating farmers into global value chains adds value in and of itself, neglecting the fact that markets are more than just a collection of economic transactions; they are also historical, and to some extent hierarchical, institutions (Martiniello, 2016).

Peasants have been largely excluded from the spectrum of political agency in grand myths of modernity, industrialization, and development. Many researchers, on the other hand, have maintained that peasants and farmers are rarely passive victims of agrarian crises. Rather, historical surveys show that they are active participants in the process, and that they would use a variety of ways to deal with the effects of agrarian crises on their livelihoods. Peasants, who have traditionally been food producers with more or less secure access to land resources, have reacted to the rising precarization of their livelihoods in a variety of ways. Some people gave up farming and began working in new trades, either in their hometowns or in more urbanized areas where they moved permanently or on a regular basis, thus separating their sources of income (Scoones, 2009). Others attempted to organize and demonstrate along proletarian lines, while a third group engaged in guerilla warfare. Finally, others were involved in the production of illicit crops, banditry, and smuggling (Petran, 1987).

The fortunes of each of these types of resistance are frequently extremely dependent on the historical context in which they occur. As a result, we find that in Lebanon, unionized protest and peasant guerilla warfare peaked in the late 1960s and early 1970s, and then faded away with the start of the civil war, which soon replaced class strife with sectarian fighting (Burke, 1988). During that time, the Bekaa plain has seen its fair share

of similar acts of opposition. Illicit crop production, particularly cannabis cultivation in Baalbek–Hermel, has, on the other hand, become a dominating form of resistance among farmers in the region. It's possible that planting this crop was one of many strategies used by farmers in this neglected and semi-arid region to postpone the onset of the agrarian crisis. Moreover, political instability, lack of basic infrastructure, lack of funds, unemployment, and the neglected agricultural sector are the major causes for this market's rapid rise in Lebanon (Afsahi et al., 2016). Therefore, it is highly important to further understand the political-economic drivers of cannabis cultivation outside the dominant discourses of illegality and legalization.

2.2. Objective and research questions

This research seeks to analyze the strategy that small and medium farmers of the region employed to negotiate and delay the unfolding of this agrarian crisis in their attempt to remain in farming. It also describes how farmers' livelihoods in turn were affected by these strategic choices.

2.3. Significance of study

This research generates a wealth of micro data and in-depth insights from marginal rural areas that were hard hit by agrarian crisis in Lebanon, in addition to the strategies adopted by farmers to weather the agrarian crisis. The debate is centered on the farmers producing food rather than food itself, as important as this latter is. By this, it offers a corrective for the debate around agriculture and its problems in Lebanon and the region. Through the insights revealed by the fieldwork on farmers' livelihood strategies, small

and medium farmers seem to be active agents in weathering this crisis, rather mere victims to it.

Currently this notion is virtually absent from public debate on this issue. A discourse on the criminality of this type of farming has prevailed, which is at the root of all manner of ill-informed policies to address agricultural problems in the region. It is no doubt that cannabis cultivation in the region is one of many types of resistance to the agrarian crisis put up by farmers of the region as it is an attempt on the part of farmers to slow down or even halt this crisis.

From a policy perspective, simply looking at cannabis cultivation as a type of farming to be either eliminated, on the one hand, or integrated into mainstream value-added commodity chains, on the other, is simply adding insult to injury. This research would offer a more robust basis for agrarian policy formulations that are more cognizant of the crisis as one hitting farmers before it affects the crops they produce on either side of the legal divide.

CHAPTER 2

LITERATURE REVIEW

2.1. Farming in developing countries

Agriculture in developing countries has changed dramatically over the last two decades. Since 1960-1970, industrial agriculture methods were expected to benefit all farmers, including the poor, because yield increases would increase income (Kwa, 2001).

Small farmers had a similar experience in developing countries, where they were pressured to switch from polycultures to export-oriented monocultures. Farmers accepting export crop rules, for example, were frequently offered extension services and credits. As a result, farmers have been forced to switch to export, while traditional crops have declined as a result of low-cost subsidized products imported from industrialized countries, saturating the local market. Unfortunately, for small farmers, this system has been a major source of poverty. Despite globalization and the presence of food surpluses, the removal of barriers has been detrimental to the livelihoods and food security of small farmers in developing countries (Patnaik, 2003).

Why focus on small farmers? "Small-scale farmers are not a uniform group." As we know, agriculture remains the main source of income and livelihood for nearly 75 percent of the population in developing countries, with small farmers accounting for roughly 80 percent of the farming population, constituting most of this population. Many have attempted exportation, with varying degrees of success and failure (Kwa, 2001).

In-depth analysis revealed that small farmers have been marginalized due to a lack of supplies such as good quality land and seeds, advanced agriculture technology, a lack of access to credit, capital markets, agriculture extension services, and a market role that does not buy their products.

Even though cannabis is illegalized in most parts of the world and has a global presence, little is known about its production, trade, and use on a global scale. This is because of global prohibition and the dangers associated with the use of this illegal drug. Despite the scarcity of data on Cannabis, it has now become an issue due to international trends toward legalization, which are sparking debates about how to increase the livelihood of small farmers in the event of an agrarian crisis (Duvall, 2019).

Cannabis is an important crop in Africa, and small farmers meet demand by exporting to Europe. The crop is profitable in rural areas and for distributors. It is regarded as a good cash crop for small farmers in areas where legal agriculture has become environmentally or economically deficient. Cannabis potential in South Africa is enormous, thanks to drought-resistant acclimatized genetic varieties and farmers' years of experience growing it.

As a result, since the prohibition of cannabis, countries producing traditionally on a global scale, cannabis can benefit impoverished communities and small farmers in particular, both economically and environmentally, as a replacement for nonrenewable energy sources. Cannabis is a less environmentally disruptive cost-effective crop. Cannabis farming would not only help small farmers become more self-sufficient and healthier, but it would also create more job opportunities and increase economic viability. As a result, cannabis can contribute to long-term livelihood, rural

development, and poverty alleviation by providing a decent living for small farmers with fair returns. Cannabis has the potential to provide economically favorable rates of return because the input costs are reasonable. Small farmers may benefit from increased income, reduced poverty and malnutrition, and an overall improvement in their overall livelihoods.

2.2. Lebanon's cannabis commerce, usage, and production throughout history

In general, there is no specific location or time for cannabis development in Lebanon. Cannabis became the mainstay of the Beqaa valley's economy after being developed there, according to some, around 1860, while others assert that the Turks introduced it there during the Ottoman era (1516–1918). (Mackinnon, 2007). Others claim that it was distributed via seeds that came from India via Zahliot traders (Afsahi et al., 2016). The Beqaa district was overlooked throughout the Ottoman era and involved destitute people who produced "weed" (Afsahi et al., 2016).. It then, at that point, spread to northwest Beqaa which was a spot for progressive developments against French protectorate that precluded such development (Afsahi et al., 2016). Farmers began shifting their practices to Cannabis development when different yields failed to meet their basic needs. Interestingly, cannabis, or so-called "weed" production provided farmers with significantly higher monetary profits due to the crop's ease of development and low requirements (Afsahi et al., 2016). During the Lebanese civil war (1975-1990), the cannabis industry thrived, with maryjane production becoming a \$500 million per year industry (Mackinnon, 2007). Almost every faction engaged in the civil war added to the peaceful dealing. The ongoing drug habit was destroyed by defilement and a lack of government funding at the time. Marijuana is regarded as one of the crops that requires the least amount of assistance and information. "Pot can simply be thrown in the field

with some water," a Lebanese Cannabis farmer told a newspaper (Blanford, 2007). Because of the simplicity of these yields, other farmers changed their practices from legal to illegal cultivation, increasing the annual production of maryjane from 30,000 tons at the outbreak of the common 13 conflict to 100,000 tons in the mid-1980s (Marshall, 2012). The illegal action increased income in the Lebanese monetary area, and maryjane was regarded as the most important money crop (Marshall, 2012). According to Marshall, cannabis development covered 80 percent of all farmlands in the upper Bekaa valley under the supervision of trained clans (Marshall, 2012).

2.3. Importance of cannabis to the Northern Bekaa farmer

The primary reasons for the rapid development of this market in Lebanon are political insecurity, a lack of fundamental foundation and assets, joblessness, and the abandoned farming area (Afsahi, 2016). In any case, when the authorities attempted to use their authority to put a stop to the illegal rancher demonstration, they were unsuccessful. The illegal market is still active, and whenever the security situation deteriorates, farmers gather and sell larger amounts of "cannabis" (Ulrichsen, 2017). With the new expanding political uncertainty, particularly the conflict in Syria, it is accepted that Cannabis development has completely expanded, taking advantage of the political uncertainty and the increased number of the modest work (Afsahi et al., 2016). Lebanon's cannabis market had triumphed over global and regional tensions. Lebanon's verifiable cannabis development foundation rendered any sort of exclusion impossible (Afsahi et al., 2016). Development may have slowed during legislative battles to eradicate illegal drug crops; however, farmers have generally observed alternatives in different areas, shifting the issue elsewhere (Afsahi et al., 2016). In any case, when the Lebanese

government attempted to replace Cannabis with other crops, such as potatoes or sunflowers, their efforts failed (Ulrichsen, 2017). There was almost no other yield that could compete with Cannabis's straightforwardness benefit. Because of the low prerequisites and high yields, families were hesitant to enter this business. According to one of the creators, the company employs 20,000 people (Afsahi et al., 2016). As a result, many endeavors failed to halt this development, and there are a few reasons that fueled the failure of such administrative endeavors. The primary reason these projects fail is that they provide farmers with a lopsided alternative. The farmer must choose between leaving a harvest that can earn him \$5,000 per month and substituting another yield that can earn him \$1,000 per month (al-Fakih, 2012). According to one of the farmers, "... all of these individuals who are planting, they aren't vendors, they are establishing simply to get by," as mentioned in a meeting with The Daily Star Newspaper in 2011. (Slemrod, 2011). The primary reason that farmers continue to return to Cannabis as a significant harvest is the benefit. Furthermore, most nearby farmers in the Beqaa have a place with heavily armed clans. Farmers even claim that they are protected by ideological groups in the Beqaa district (Mackinnon, 2007). Those ideological groups chose not to see the criminal behavior, whereas impediments and assents against the farmers were primarily the result of global requests (Arnson, 2005). Farmers made it clear that they would oppose using force when the official authorities sought force elimination initiatives to eradicate any cannabis fields (Blanford, 2007). (Blanford, 2007). It is now estimated that the area planted with Cannabis in the Beqaa area is somewhere between 30,000 and 40,000 sections of land, with an annual absolute income of around 800 million dollars, which addresses the type of revenue for 30,000 families in the Beqaa area (Takieddine, 2017).

However, while some ideological groups were focused on destruction projects or elective harvests, others were more concerned with legalization.

2.4. Lebanon and Morocco

For over a century, illegal cannabis farming and the extraction and trade of hashish resin have supported the livelihoods of farmers in Lebanon's marginal Beqaa region. Cannabis cultivation is more profitable than any other crop: the returns far outweigh any other legal option (Fakhry et al., 2021). Lebanon is a significant Hashish exporter. However, the cannabis market has been subjected to a variety of international and national pressures. In Lebanon, cultivation has decreased after the civil war ended (mainly late 90s) because of government pressures to eradicate illegal crops and replace Cannabis with other crops such as potatoes or sunflowers, but their efforts have failed. Farmers continue to work on cannabis due to its low requirements and high returns because no other crop has been compared to its profitability (Assaad, 2021). As a result, many factors contribute to the failure of government efforts, particularly for poor and small farmers who plant to survive. The high profit of this crop has triggered the Beqaa region, the main cultivation area for Cannabis, where many farmers belong to armed tribes and are protected by political parties. While sanctions against farmers are imposed as a result of international pressure, political parties have turned a blind eye. Farmers oppose the use of force to destroy Cannabis fields as part of eradication programs. The serious economic crises in Lebanon from exacerbated by the coronavirus pandemic recently, has driven up production costs; farmers who were used to planting potatoes have been forced to switch to Cannabis, which is less expensive than other crops. The plant is naturally resistant to pests and diseases, is drought tolerant, and requires little water (Assaad, 2021).

Morocco is regarded as one of the world's leading producers of cannabis resin (hashish). Moroccan cannabis growers have also demonstrated resilience in the face of government efforts to eradicate or reduce cannabis cultivation and to adapt to international market conditions over the last 50 years. Cannabis is regarded as one of the region's viable economic option, and government efforts have been futile for many years (Blickman, 2017).

Moroccan cannabis policy has drawn European attention; increased production has allowed small farmers in the Rif mountains, in the north of Morocco, to become more specialized in cannabis cultivation and production, and to meet international and European market demand in particular, whereas previously, it was produced and used locally. However, with the growth of Cannabis cultivation in Europe over the last ten years, the countries have been able to meet their own needs and compete with Moroccan Hashish. Moroccan growers, on the other hand, could adopt new strategies and adapt to changing international markets to strengthen their economy through cannabis production (Afsahi, 2015).

In this context, Lebanon and Morocco shared some common characteristics in Cannabis production; a comparison between the two countries helps to understand the different contexts, strategies, and challenges faced by growers, as well as their ability to adapt to various changes and sell their products to local and international markets.

First, both cultivated Cannabis in Lebanon's Beqaa and Morocco's Rif are regarded as suitable areas for growing cannabis in Mediterranean climates. However, they are marginalized production areas subject to repressive legislation. Furthermore, Morocco's stability and growers' skills are important inputs for sufficient local production and competition with European markets. Despite political instability, Middle Eastern political

disorder, including the Syrian war, foreign interference, and the absence of governmental control in Beqaa during conflicts, Lebanon has returned to Cannabis production and Hashish processing into poppy crops (Serval & Zurayk, 2014). Even though Lebanon is a producer of cannabis for export in the Middle East, its local consumption is lower than in Morocco because a long history has restricted and prevented its local use in Lebanon. Lebanon also has fewer opportunities in European markets than Morocco, despite its high quality, particularly in Dutch coffee shops. Despite global cannabis competition, including indoor cultivation of Cannabis and hybrids, legislative amendments, Moroccan Hashish has become more available in markets over the last decade due to growers' adaptation to hybrids cultivation. The Rif's intermediaries continue to look for new markets, such as West Africa (Afsahi, 2015). However, Lebanese growers show no incentive to grow hybrids, and despite expertise in growing and processing techniques, marketing network management, and adaptation to volatile environments, cannabis is rarely grown in closed bordering countries.

Both countries' cultural heritages should be considered. They have a deep connection to cannabis and a long history of dealing. Despite international funding and cooperation policies for crop replacement, it was not possible to control cannabis cultivation. Some growers achieve a higher standard of living. Furthermore, cannabis cultivation is a profitable crop for small farmers because it is drought-resistant and thrives on marginal lands (Zurayk, 2013). Farmers do not need to invest in irrigation systems because it can grow without fertilizer or irrigation and is even sold at a higher price due to its higher quality. Because irrigation and fertilization increase yield, cultivators rely on free water sources, eliminating the need for irrigation systems such as digging wells and installing irrigation pumps (Afsahi & Darwich, 2016). Despite international funding and

cooperation policies, irrigation systems in Morocco include constructing ponds, digging wells, and drip irrigation systems to adapt irrigation systems to hybrids that require more water. Drip irrigation is becoming more common in the Rif as the cost of irrigation equipment has decreased (Chouvy & Macfarlane, 2018). In Lebanon, there were some conflicts over irrigation water, leaving some villages without water (Afsahi & Darwich, 2016). Cannabis production is seasonal, whereas other crops may take several years to bear fruit, resulting in a long period during which the grower is unable to support himself. Climate conditions such as Spring frost may endanger delicate plants. It is in Morocco, cannabis growers increased production by introducing hybrids, whereas Lebanese growers opted for poppy production (Afsahi & Darwich, 2016).

In terms of the state's role in Lebanon, cannabis cultivation safeguards farmers and farming as a social category and economic activity. It reduces migration and keeps Beqaa farmers in rural areas. Cannabis eradication without a restructure of economic rules is always met with violent and strong opposition. The state tries to understand the problem and is always concerned about political actors who cause confusion. It was pertinent when the Beqaa region became part of the district Syrian zone of influence since 1975-1990 civil war during the geopolitical conflict, which resulted in further degradations of central state power and disequilibrium in country balance. Following the failure of crop replacements and the inability to fund development projects, the state has few options other than to turn a blind eye to Cannabis. In this arrangement, the state achieves a win-win situation for all parties involved by cutting back on government spending and giving tribal leadership targeted economic growth. This enables a moral economy among growers because of tribal relationships and ways of transactions between people in these areas is different than just giving money in return to a service. Second, the money earned

by growers enables them to purchase commodities and services that the state does not provide, such as food, education, and health insurance. Cannabis money enters the capitalist system as cash for purchases, bank deposits... Third, this effectively leaves farmers with some disposable income, but only enough to soften their rebellious reactions and ensure their social reproduction in the absence of governmental payments. Fourth, the state benefits by empowering tribal leaders at the expense of political leaders, who could mobilize disgruntled farmers and disrupt Lebanon's fragile confessional balance, resulting in conflicts based on class struggle rather than sectarian interests (Hilal et al., 2018). The situation in Lebanon is not unique; a similar situation has been reported for Moroccan Rif, where cannabis cultivation is "simultaneously an alternative to underdevelopment against which the State takes no action, but also the guarantee of a social and political peace difficult to obtain without this culture." (Chouvy, 2008).

As a result, in regions such as Morocco's Rif or Lebanon's Bekaa, and in the absence of viable alternatives, small farmers have given up on governments, which, are deepening their poverty. The major challenge is determining how small farmers respond to and exist within a legality imposed by power that they may or may not be a part of.

2.5. Illegality as a means of evading both capital and the state

Illegality gives cannabis cultivation one more property in common with various types and sizes of producers: it places it outside the scope of investment. To be able to work successfully, funding necessitates a productive legal system (Tykvova, 2018). Speculations, adventures, associations, and benefits are critical components of the "business framework," which requires a clean monetary foundation to be reusable in public and global business sectors. Funding interests in marijuana cultivation are

nonexistent because of this peculiar impediment to the smooth operation of the benefit framework. As a result, Lebanon has not experienced the increase in pot production reported by Chouvy and Macfarlane (2018) for Morocco, with the introduction of new ventures, new seeds, and other advancements.

Because of the scarcity of the stock, marijuana, and Lebanese marihuana tar orders command outrageous prices. In any case, this very strength renders it vulnerable to market influences, as there are various imperatives to promotion, such as the progressions in outside interest as the traditional western market becomes overflowed with products from various provenance, such as Morocco for Europe, or privately created and sanctioned marijuana as in North America.

As a result, despite remaining outside the formal and legitimate investment stream, weed development is still exposed to adverse elements. This was most evident after 2012, when marijuana destruction crusades were discontinued, and the edited region expanded. The oversupply of items and the completion of the Syrian lines caused the market to close in 2014, with prices dropping to 33% of their drawn out normal (Zbeeb, 2012). Furthermore, the area is experiencing a small but significant increase in production, resulting in higher production costs. Thus, clashes over water for use in the marijuana water system erupted in some areas, parching a few towns, and were accompanied by floods of well-known protests (Hamiyyeh, August 29, 2015).

In any case, the genuine superiority of marijuana over other yields may be since it is illegal, and that it is grown in defiance of the State, in a region where geography and social relations combine to make a safe haven outside of the State's reach. The rough, uneven terrain provides an actual haven for those looking to avoid the law.

CHAPTER 3

METHODOLOGY

Due to the illicit nature of the crop, it is difficult to investigate cannabis cultivation all over the world (Cocklin et al, 1999; Wilson and Zambranno, 1999; Bloomer, 2009). This problem is masked in Lebanon by endemic political turbulences, which create security issues that researchers must address.

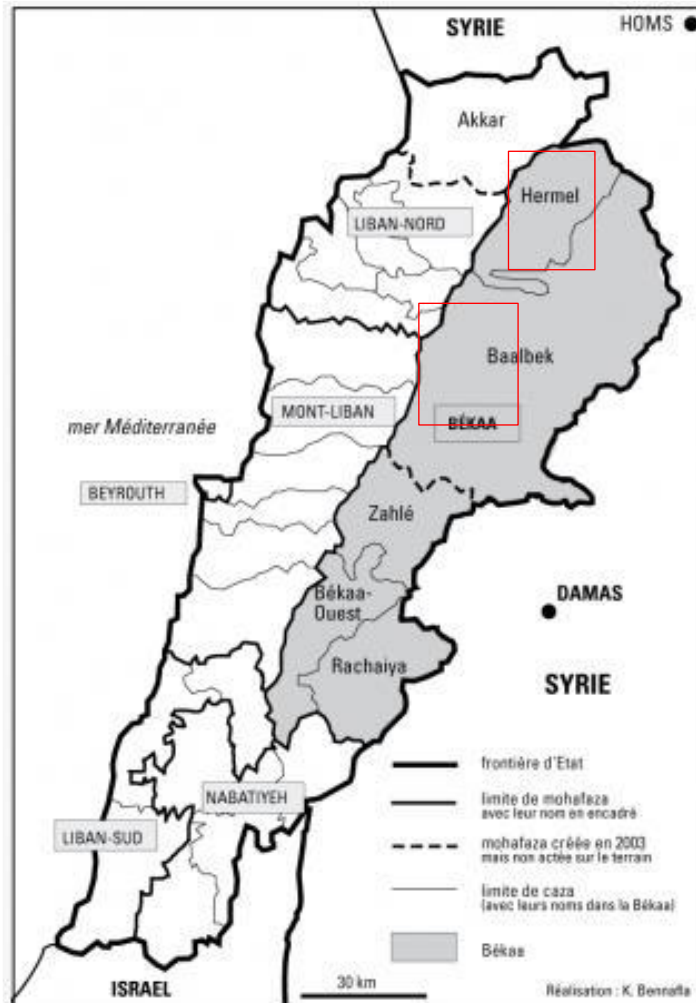
The study employs a qualitative method. This is due to the goal of researching and comprehending a topic that is not widely known. The intended outcome is a more in-depth analysis of a complex issue than a large-scale survey that would provide more superficial but numerous answers, i.e., the emphasis is on "depth" rather than "breadth" (Verschuren & Doorewaard, 2010, p.156).

3.1. Primary Data

A questionnaire was developed, and in-depth interviews were conducted with 25 farmers in the different villages of West Baalbek and Hermel area. For the selection of the farmers and the logistics, one researcher who has strong social linkage with the region of study helped us thus easing the limitations. RH is from the area, lives there, and has spent the last 15 years as an investigative journalist covering social and political issues. This made our work easier and provided a safe environment for clansmen and farmers. The farmers were selected from villages where cannabis cultivation is very prominent. Moreover, the focus was mainly on small and medium scale farmers. The farmers were in different villages in the area. The choice which farmer to talk to and which village to choose was based on different criteria. We tried to choose villages which spanned on most

of the targeted area to have a bigger diversity in the answers. Moreover, by choosing different villages we hoped to cover most of the problems facing farmers in this area so that the sample we chose paints relevant picture of the area. Furthermore, the choice of the cannabis farmers in each village was simpler since we targeted small to medium farms representing 92% of the sample (17 out of 25 small scale and 6 out to 25 medium scale farmers) and farmers were classified between those who rented the land and others who owned the land in addition to the area of land. Moreover, these farmers were chosen in the villages where cannabis growing is dominant. So, cannabis growers fitting this criterion in the respective villages who were willing to speak to us were interviewed.

The questionnaire was designed to collect personal data (such as family size, education, source, and level of income, and so on), inventories for equipment, land, crop labor and irrigation practices, financial and market status, and so on (i.e., credit facilities). The inventory-related set of questions aided in estimating asset levels and values. The market section included questions about how the market works as well as the main marketing issues. Economic and financial analyses for crop productions were carried out at various operational scales (small, medium, and large) to estimate system profitability and thus justify the economic motivation for such changes. The economic analysis considered the value of family labor and management in the production process. However, only the farmer's actual spending (only cash expenses) was considered in the financial analysis. Cannabis was used in this study because it is the most dominant crop in the current changes.



(Bennafla, 2006)

3.2. Analyzing the data

Given the desire to extract specific themes from the interviews, the method of data organization and extraction from the responses was an interpretative thematic analysis in which key points and coded categorization were extracted through an immersion process. We can use interpretative thematic analysis to extract "the meanings of events and interactions within them" from interview data (Owen, 1984: 274). To correspond to key dimensions of the research questions, I coded key quotes and fragments of the discussion from my own transcriptions of each interview. Quotes and sentences were classified and chosen based on their relevance to the research question. Coding extracts the important

aspects of those meanings to categorize them as data, allowing me to answer and contextualize the problematic, as well as their associated themes and responses to the research questions.

CHAPTER 4

RESULTS

- **Socio-demographic characteristics of the sample ¹**

The participants in this study were all males with ages ranging from 18 to 60 years old. The average age was 31 years. Moreover, 86 % were married and 90% had children. Only 12% of those polled lived alone and 32% were enrolled in higher education or training.

Several characteristics defined the participants the most prominent were whether they were full time or part time farmers, if they owned or rented the land and the size of their farms.

It is important to note that while most of the participants were full time farmers some had another non-agricultural income. In fact, 22 out of 25 participants (88% of the sample) were full time farmers with a non-agricultural income less than 20% of total household revenue whereas 3 were part-time farmers (12% of the sample) with non-agricultural income 20–50% of total household income (Zhang et al. 2019, Zhou et al. 2021).

Moreover, farmers those who rented their land were 7 (28% of the sample) and those who owned the land were 18 out of 25 (72%). The farmers rent the land for 9 months with a cost of 500,000LL/ dunum. The average land rented is 10 dunum and the average land owned is 20 dunum. Moreover, 20% of the lands cultivated are irrigated and 15%

¹ The exchange rate at the time of conducting the interviews was 17,000LL for 1\$.

are fertilized with an average cost of 10\$/dunum for irrigation and 7\$/dunum for fertilization.

It was noted that 17 farmers out of 25 (68%) happened to be small scale farmers who cultivated land between 5 and 15 dunum, 6 were medium scale farmers (24%) who cultivated land between 15 and 40 dunum, whereas 2 which represent 8% of the sample were large-scale farmers who cultivated a land size of 40- 100 dunum and above.

These characteristics are important because they give us a clear picture of the ins and outs of cannabis plantation. They paint a clearer image of the farmers and their economic situation which affects their ability to produce cannabis and the profits they reap from this production.

Finally, this study showed that the average cultivated land (mixed with other crops such as tobacco and most often potato) was 30 dunum whereas the average cultivated land of cannabis alone was 10 dunum.

- **Profit**

Cannabis production was known to be an easy crop, it did not need lots of maintenance. However, with increased competition and changes in the economic situation farmers need to increase production in order to maintain a decent profit. Thus, the need for fertilization and irrigation occurred. These expenses along with other factors (workers, machinery ...) cut into the profits of the cannabis sales. Accordingly, the average seasonal income of 18 out of 25 participants (72%) was between 50,000,000LL-100,000,000LL, 4 participants (16%) had an average between 100,000,000LL and 300,000,000LL, 2 (8%) participants had an average monthly income between 300,000,000LL and 500,000,000LL and the remaining 1 participant (4% of the sample) had an average of 500,000,000LL.

By comparing between the quantity and cost of cannabis production vs the quantity and cost of the production of potato per 1 dunum, the results show for cultivation of both cannabis and potato, farmers need equipment such as tractors, seeds, workers, water, and packaging. All these costs came to 200\$/dunum for potato and 120\$/dunum for cannabis. Per 1 dunum of land, the yield for potato is 2 tons whereas for that of cannabis is 15kg. Given that farmers nowadays sell 1 kg of potato for 0.5\$ and 1 kg of cannabis for 100\$, then this comes to a revenue of 800\$/dunum for potato and 1380\$/dunum for cannabis.

Cannabis requires the least amount of equipment, workers, seeds, fertilizers water and packaging to finish one season as opposed to other crops. But now after introducing the irrigation to increase the production due to competition, this profit is no longer high due to the increased consumption of water. Farmers reported that the profit rates decreased approximately to half with a revenue happening to be approximately one and a half times potato revenue.

This raises the question is cannabis farming still worth the risks or are planting alternative crops a viable option for farmers in these areas. Keeping in mind the changes in the society and the demography of the people living in Baalbek-Hermel area.

CHAPTER 5

THEMATIC ANALYSIS

5.1. Planting cannabis as a form of resistance

Cannabis has been traditionally planted in the Bekaa valley since the Ottoman times. It was a form of resistance against government's oppression and marginalization of the area. In fact, according to the local farmers it is a way of fighting back and remaining in their respective farms. All the interviewed farmers unanimously agreed that Baalbek-Hermel is one of the poorest and most vulnerable areas in the country where the main household income is from agriculture and related activities. In fact, the absence of any decent type of infrastructure from roads to adequate water systems and electricity causes this area to be somewhat isolated from the rest of the country making it optimal for cannabis farming. Furthermore, one farmer stated that, the absence of any real government effort to improve the living conditions of the people made them autonomous and caused them to come up their own solutions to survive disregarding the fact if the solution is legal or not. This fact was made abundantly clear by a cannabis farmer, who said "a large part of the economic activity in the area is informal, consisting of smuggling goods at the border with Syria, and the illicit drugs economy including cannabis". In fact, most of the interviewed farmers stated they are forgotten the government does not care about us. "We do what we must to survive" seems to be the common motto of the interviewed cannabis farmers in the area. In fact, the marginalized state of the area makes it optimal for planting cannabis where the cannabis fields are a common occurrence and the absence of any type of police is glaringly apparent.

Under these conditions the farmers had to make up their own protection system. This is apparent in the social structure of the governorate which is divided into families and tribes. “We belong to a tribe; we are connected by blood ties to its members. The elders speak and we follow” was the answer when asked about their familial ties. In fact, familial solidarity is what makes the fabric of these, and it is essential in their operations. In Baalbek-Hermel, the tribes have informally obtained a certain degree of legal autonomy. They are basically the government in this area, they have weapons, and they do not hesitate to use them against law enforcement officials. This structure reinforced the marginalization of the governorate that is considered as a “lawless” land far from the reach of government authorities. When speaking to the farmers the majority were blissfully unaware of any government authority in the area. In fact, they summed up their interaction with the government by saying: “they show up to burn our fields we shoot at them, and they leave. It the way it has always been”

It is important to note that tribal belonging is not the only factor that plays a role in, the social relations in Baalbek- Hermel. A combined solidarity between parties and religious movements, and solidarity based on political principles or social and economic interests also factor when considering allies and business partners. However, despite all these factors and complication cannabis growers still see themselves as simple farmers. This was apparent in the discussions we had with the farmers who participated in our survey. In fact, one farmer commented that “planting cannabis is the only choice they had” another one said that they are simply planting cannabis to get by and not to become rich.

5.2. Increased costs

When asked about the quality of their product they stated that Lebanon is placed among the top cannabis-producing countries in the world. Its hybrid strain “Red Lebanese” because of its dark red flower buds is famous worldwide for its high quality. In fact, the farmers said that the Bekaa has optimal climate to produce a high-quality product. The dry and cold climate combined with the high altitude is perfect for the cannabis plant. In addition to that the farmers proudly said: “the Lebanese variety is naturally draught resistant; it is resistant to pests and does not need extra care to grow”.

In fact, a farmer in the Bekaa valley stated that “Cannabis can be thrown in the field with some water and that's it, ". Thus, traditionally it was known as being an easy crop to plant among farmers in the Bekaa valley. However, times have changed and what used to be an easy crop with low costs became a demanding costly crop. In fact, the interviewed farmers pointed out that nowadays cannabis farming is becoming costly. This was a complaint echoed every time we spoke to a farmer. They said that Cannabis presently requires irrigation as well as fertilization to increase the yield and consequently increase the profit. The problem with irrigation was summed up by one farmer by saying “the water sources in the area are limited and we are competing with other legal farmers for the same resources”. Moreover, “finding alternative water sources is costly since they require motorized irrigation systems and fuel costs are increasing exponentially in Lebanon”.

Furthermore, the current economic situation and the instability of the dollar market makes it extremely challenging to buy fertilizers. In fact, both fuel and fertilizers are imported goods and they are priced in dollars. this is an issue nowadays because farmers are paid in Lebanese pounds for their produce and must pay for these necessities in

dollars. “Everything is expensive nowadays” responded one farmer when asked about his expenses “we even have to pay to get water these days”. In fact, the small farmers are finding themselves in a very undesirable situation where the cost are increasing exponentially and are cutting into their profit margins.

5.3. Planting cannabis to resist the agrarian crisis

In fact, as per our survey, the farmers planted cannabis as a means of resistance against the agrarian crisis. They wanted to remain living in their respective villages however due to the marginalization of the area and the absence of any real job opportunities they turned to cannabis farming. “We want to stay here, and we want to live decently” said one farmer pointing out that there are no decent jobs in the area other than planting cannabis. The interviewed farmers said that planting cannabis was supposed to be an easy means of making money however due to the illicit nature of the crop they found themselves facing a new set of problems and not making enough profits because of the higher costs that come with planting cannabis nowadays. One farmer said:” a common misconception is that everyone involved in the cannabis business is a wealthy criminal. This is not the case, even in this illegal economy, inequalities are abundant”. In fact, there is a great difference between the profits accumulated by the cannabis traffickers and the farmers. Another farmer said, “The traffickers are connected to national and international distribution networks and to political powers that provide unofficial protection, whereas we are at the lowest point of the value chain and receive the least number of profits”. In fact, between costs of renting the land and the costs pf planting cannabis with the increased needs for irrigation and fertilization the profit margins of the farmers have greatly diminished. This was expressed by most of the farmers who

participated in our survey. Raising the question of how feasible is planting cannabis these days and could another legal crop take its place?

In addition to that these farmers turned to cannabis farming to resist the agrarian crisis and to resist the big farming companies who wanted to buy their crops with low market rate prices. In fact, when planting legal crops, the farmers who own or rent small to medium parcels of land said, “the big farmers are eating the small farmers and it is impossible for us to turn a decent profit”. However, in the present time the small cannabis farmers are facing the same issues when planting cannabis. Furthermore, when asked to comment about this issue the farmers almost unanimously said “you have to own a big parcel of land to turn a decent profit otherwise you barely get by”. Between their troubles with the law, the need for protection and the costs of production their problems seem to be increasing with each passing day.

5.4. Planting other alternatives to cannabis

In fact, in the past when the farmers were asked if they are willing to plant an alternative legal crop the answer was negative. According to their experience, during the previous times such crops was offered to them there was no follow through. They said: “If the seeds of the alternative crops were available for a season the next season there was a failure to deliver new seeds for a continuous production”. In addition to that: “there was no guarantee that the produce will be sold for a decent market rate”. These problems are absent when the farmers plant cannabis. The cannabis farmers unanimously agreed that there is an abundance of seeds and whatever the quantity of the produce there is always a market for cannabis. In addition to that most farmers believe that cannabis is the best suited crop that could be planted in this area. Which underlines the fact that cannabis

planting in not only a means for survival but also a way of life for the people in this area. “It is our tradition and our whole system evolves around the planting and production of this produce” they said. However, as per our survey, the answers are starting to vary. The farmers are starting to realize that planting alternative crops such as wheat or potatoes may have approximately equal revenues to planting cannabis. In fact, one farmer stated, “this year me and my neighbor (potato farmer) made approximately the same profits”.

The ever drastically declining economic situation in Lebanon made the Lebanese government realize the urgent need for planting local produce and serious measures are starting to take shape. In fact, due to the recent war between Russia and Ukraine wheat production and export have decreased since both countries were major wheat producers. The absence of wheat worldwide is threatening the food security of the Lebanese people.

Thus, the need for local wheat sources is newly arising opening a new door for previous cannabis farmers. It is important to note that wheat for instance can thrive in the same conditions as cannabis in the Bekaa -Hermel area. Thus, making it a suitable crop to replace cannabis.

5.5. Problems with the law

The illegal nature of the crop causes farmers a lot of trouble with the law. When asked about this issue one of the farmers said: “They used to make yearly raid attempts in the Beqaa Valley targeting the cannabis farms, the last one being in 2012”. However, the farmers stated that under the leadership of the tribes they used to always arm themselves and defend their crops leading to casualties on both sides. What is very memorable about this conversation is that these statements were issued with very little emotion as if what happened was totally normal. And shooting government officials to

defend the cannabis crops is totally justified in the eyes of the farmers. With the start of the Syrian war in 2011, the priorities shifted to security matters, and the government then eased the cannabis cultivation control. Nowadays, cannabis fields can gain be openly seen “on the sides of main roads and even close to army checkpoints” in Baalbek-Hermel.

However even with the easier circumstances with planting cannabis nowadays it is clear that these farmers hope for a different kind of life for their kids in fact when interviewing a cannabis farmer his response to this subject was: “who said that I want my son to grow up to be a cannabis farmer, and not a college graduate?”

5.6. The future cannabis planting in Lebanon

‘If we did not plant cannabis, no one would stay in this village’ is the opening quote of the cannabis farmer when asked why is planting cannabis so important. However, as the interview progressed another picture started to take shape and what was known to be a thriving business turned out to be gradually dying. In fact, according to a prominent cannabis farmer in the area, what the government and the police were not able to achieve the dying economy will accomplish it will reduce cannabis production. Furthermore, the Lebanese pound has lost 80 percent of its value against the United States dollar, and this has directly affected the farmers. The costs of imported fuel and fertilizer needed to grow the crop have soared, while the Lebanese pounds that growers earn by selling their cannabis are worth less and less. Moreover, the financial crisis has also weakened the drug’s local market, and the traditional smuggling routes are negatively affected by the war in Syria, making it harder for middlemen to reach foreign markets. All these factors have greatly cut in the profits of the cannabis sales thus making it barely worth producing according to several farmers in the Hermel area. In fact, one of the farmers, we

interviewed stated that he barely makes enough profit from cannabis farming to justify the “headache” planting an illegal crop cause. According to another farmer the golden days of growing cannabis are over; when answering a question about the future of cannabis production he says: “It’s over” Moreover, another longtime grower said that “If the situation remains as it is we will not plant next year”. However other farmers will keep growing cannabis, it is all they have known, and tradition will keep them going. “We were born into this; it is all we know” is another quote from a traditional cannabis farmer.

The economic crisis that keeps on dragging the Lebanese the people has acquired another casualty in the Lebanese Cannabis producers. Despite being an illegal crop with its own markets it seems that cannabis farming will not come out of this crisis untouched. What used to be a source of security for the farmers is losing gradually its safety. In fact, if the situation keeps worsening the farmers would need to start looking for new sources of income in an area where basic infra structures and minimal jobs are totally absent.

Our research sheds a new perspective on cannabis farming refuting the old claims that cannabis is an easy crop and selling it will generate high incomes. In fact, with the new market requirements and the need for fertilization and irrigation as well as the soaring prices of all imported goods including fuel and fertilizers. It seems that some cannabis farmers will barely have any profits. This is especially true for small to medium sized farmers who rent the land and who count solely on farming to make ends meets.

Moreover, our research showed that the initial reason that made farmers turn to cannabis farming was the need to stay in their villages and to face the agrarian crisis. However, with the mounting costs and the increasing economic fallouts in Lebanon it

seems that these farmers will be unable to achieve their goal. In fact, one farmer stated that this is the last year I am planting cannabis it is not worth it anymore.

CHAPTER 6

DISCUSSION

When discussing Cannabis production in Lebanon we are not only talking about an illegal crop. We are discussing the history of an area and how people are trying their best to remain farmers despite all odds. We are discovering a society based on clans and on people whose relationship with the local government is shaky at best. This study will shed a light on the evolution of cannabis in this area and how popular facts about cannabis such as high profitability and low costs are not always true. To understand the whole picture it is important to shed a light on the small farmers and how they are affected by industrialization and production for the export market which lead to the uprooting and destruction of small farmers while benefiting the large farmers (Kwa, 2001). "These are people for whom farming is a major livelihood activity, yet who have insufficient assets to produce a surplus from their agricultural activities and whose non-farm activities are insufficiently reliable or remunerative for them to rely on market purchases for adequate food intake" (Kent & Poulton, 2008). In fact, when many farmers grow the same product over high surface areas, the profit margins get radically lessened and only large farmers can adapt to industrialization and exports (Shiva, 1999). As a matter of fact, this scenario happened in the Bekaa valley where farmers found themselves unable to sustain a decent life from planting traditional crops such as potatoes and turned to planting cannabis in the hopes of having a better income. This was made clear by a farmer, who when interviewed stated that "... All these individuals who are planting, they aren't vendors, they are establishing simply to get by.", as

characterized in a meeting with The Daily Star Newspaper in 2011 (Slemrod, 2011). Another farmer Abu Ali, answered “Growing marijuana is the only choice we have,” when questioned about his reason for planting 27 dunams (27,000 square meters) of his land with cannabis ((Hamieh, 2012)) .

In fact, contrary to common belief, small farmers, are not bandits by cultivating illegal crops. Cannabis is a necessity to them and offer economic stability. It is considered also as a part of diversification offering more employments for on-farm and off-farm (Bloomer, 2009). Landless farmworkers can even have more benefits than farmworkers. On the other hand, Cannabis is also considered as an act of contestation related to a state that do not afford social support to their marginalized growers who blamed the state for their poverty. Another misunderstanding is that Cannabis growers are rich because the return of Cannabis is higher than traditional crops, but the distribution of profits and earnings is a reflection of the strong power along the production and marketing chain. Unfortunately, small farmers are the bottom of the chain and get the smallest revenues. Indeed, traders, and big farmers who have control of the production and marketing chain have the highest share. These policies let small farmers seek refuge under the mercy of big and powerful traders. Thus, the availability of lands, labor does not always guarantee the success in Cannabis production.

Our study showed that, while the market price of cannabis is higher than that of other crops, the pure profits that farmers receive at the end of the season are not significantly higher than those obtained from planting other crops such as potatoes today, implying that planting cannabis today is not the solution to these farmers' problems. On the other hand, it is easy to see why at the first glance cultivating Cannabis may seem attractive. Traditionally cannabis was known to offer economic

benefits especially for small farmers under the agrarian crisis (Jelsma et al., 2021). Indeed, Cannabis is a cheaper alternative for production, has many medicinal uses (Behere et al., 2017) and most importantly can be grown in diverse locations with few resources. Moreover, it is less demanding in term of inputs such as irrigation and fertilizers, allowing farmers to spend less money and offering is a great opportunity for small farmers to benefit economically (Caulkins, 2010; Jelsma et al., 2021). "Pot can be thrown in the field with some water and that's it," a Lebanese Cannabis farmer explained (Blanford, 2007). Because the plant is naturally resistant, drought tolerant and not water demanding with little pests and diseases infection (Assaad, 2021).

In addition to that planting cannabis is a way of life in fact it can be traced to the French mandate in Lebanon, in the Bekaa valley. In fact, cannabis became a symbol of resistance to Shi'a clans in the Beqaa (Darwich,1997) during the French mandate and after independence (1943) when economic activities focused on the capital and other big cities and neglected the regions, the Beqaa was denied development and management projects, and thus cannabis cultivation was increasing (Darwich, 2001). During that time, the Bekaa plain has seen its fair share of similar acts of opposition. Illicit crop production, particularly cannabis cultivation in Baalbek–Hermel, has, on the other hand, become a dominating means of resistance among farmers in the region. It's possible that planting this crop was one of many strategies used by farmers in this neglected and semi-arid region to postpone the onset of the agrarian crisis (Amhez, 2019). Moreover, political instability, lack of basic infrastructure, lack of funds, unemployment, and the neglected agricultural sector are the major causes for this market's rapid rise in Lebanon (Afsahi et al., 2016). In addition to that one major

advantage of planting cannabis is the assurance of an ever-present market. Keeping in mind that most of the cannabis production is exported (Aaraj, 2020).

Cannabis production follows the same economic principles as other crops in capitalist markets. It is subjected to law of supply and demand. The small farmers profit from the Cannabis cultivation because of its illegality; however, it does not compete with industrial farming which benefit from subsidies. such as tobacco. But with legalization of Cannabis into the global commodities regime, small farmers are concerned that capital investment rely on large corporations and not giving them opportunities and take risk with them (Zurayk, 2013).

However, small farmers need to take risks, and try to have potential social support protecting them from repressive actions (Zurayk, 2013). Keeping in mind that the majority of the labor force in cannabis cultivation is largely familial, conducted by small and mid-level agricultural business, while in big business, salaried employees were involved (Baalbaky & El Khalil, 1992). In the Beqaa region, the main cultivation area for Cannabis, many farmers belong to armed tribes and are protected by political parties. These parties turned a blind eye while sanctions against farmers are imposed from international pressure. Farmers resist using force against eradication programs to destroy the Cannabis fields (Al Aaraj,2020). On a broader level, cannabis value chain is affected by geopolitical considerations. US policy for instance try to operate and fund cannabis eradication programs worldwide (Bureau of International Narcotics and Law Enforcement Affairs, 2013). Lebanese farmers complained about the contradictory agenda in the US, which from one side, claiming the legalization and emergence of

quasi-industrial unit and from the other side giving financial support for eradication of Cannabis. This gives more reasons for farmers to cultivate Cannabis which become a livelihood security and a resistance to unfair power.

As a matter of fact, Cannabis development involved 80% of all farmlands in the upper Bekaa valley under the assurance of equipped clans (Marshall, 2012). It is estimated that the region planted with Cannabis in the Beqaa area is somewhere in the range of 30,000 and 40,000 sections of land, with an absolute income of around 800 million dollars yearly, distributed among 30,000 family in the Beqaa (Takieddine, 2017).

the rapid changes in the cannabis market and the increases in competition with other markets caused changes in cannabis farming. New species of cannabis plants are introduced, the need of fertilization and irrigation arose in order to increase production. Thus, what used to be an easy crop to grow is turning into a demanding crop with increased expenses a new set of problems. In fact, the need for irrigation causes a competition between the potato farmers and the cannabis farmers since the water resources in the Bekaa valley are limited. Moreover, the absence of decent infra structure to distribute water regularly to the fields increases this problem and causes extra costs on the farmer to ensure all crops are irrigated properly (Mroue, 2018).

In addition to when comparing the lifestyle of cannabis farmers to legal farmers in the Bekaa valley many interesting points stand out. The cannabis farmers have their own traditions and society that sprouted from the fact that they grow an illegal crop. They are more organized in clans with a very clear hierarchy. The fact that they grow cannabis makes them known among farmers in the area as people is not

messed with. They have their own laws and their own protection systems. In the past their lifestyle from cannabis revenue was distinctive since the revenues more higher affording a comfortable lifestyle to these farmers. However, nowadays the benefits from cannabis farming are highly reduced causing the farmers to struggle much like the farmers with legal crops. Difference between farmers (cannabis farmers and farmers planting legal crops).

Thus, what was supposed to be, a strategy used by farmers in this neglected and semi-arid region to postpone the onset of the agrarian crisis is turning out differently. In fact, this research showed that there were many reasons that caused the farmers to shift from other produce (potato, tobacco) to cannabis production such as land ownership and labor. However, the main reasons by far were the agrarian crisis, the profit margins which are relatively higher than other produce and changes in the ways of living which caused the farmers to seek alternative crops with lower costs and higher profit margins (Amhez, ,2019). However, with the profit margins decreasing because of higher costs in production and the problems with the competition over local water resources and the illegal nature of the crop. A serious question needs to be raised about the feasibility of planting cannabis for small farmers in the Bekaa valley. These finding agree with the findings of Ben Hubbard (2020) who interviewed Cannabis growers in the Hermel area.

Moreover, comparing cannabis production in Lebanon and Morocco may shed a better light in understanding the ins and outs of this market. And may paint a clearer picture on the future evolution of cannabis production in Lebanon.

The Beqaa in Lebanon and Rif in Morocco are considered suitable areas for growing cannabis under Mediterranean climate. In fact, the best quality of cannabis is harvested in high altitudes under dry climates which perfectly describes these areas. Moreover, both areas are marginalized and are undergoing repressive legislation. In both areas the farmers have turned to cannabis production to face the agrarian crisis and keep farming their lands. Moreover, the lack of adequate infrastructure (roads, education, health, training), employment alternatives, fragmentation of lands, inadequate growth of agricultural businesses, lack of funds and marketing, a weak development of irrigated agriculture and the absence of any effective services makes cannabis farming a necessity to stay in these areas rather an option. In addition to that the cultural heritage in both countries should be taken into consideration. They have a deep-rooted attachment to cannabis with a long tradition of dealing where cannabis production became form of resistance and attachment to the land in the face of adversities.

Furthermore, Morocco has a sufficient production and can compete with European markets due to the skills of the producers and the stability of the country. Whereas, in Lebanon, the political instability, the Syrian war, foreign interference, and the absence of governmental control in Beqaa during conflicts, benefited of the growers (Serval & Zurayk, 2014). Moreover, Lebanon exports its produce to the Middle East and does not compete in the European Markets even though is well known for its high quality especially in Dutch coffee shops. Its local consumption is less than in Morocco because in Lebanon, a long history has restricted and prevented its local use.

In addition to that Moroccan farmer are looking to expand their markets to West Africa (Afsahi, 2015). Their produce is more available in the markets due to growers' adaptation to hybrids cultivation. Hybrid cannabis plants need irrigation as well as extra fertilization. Irrigation systems in Morocco include constructing ponds, digging wells, and drip irrigation systems. With the decrease of irrigation equipment cost, drip irrigation is more widespread in the Rif. Morocco (Chouvy & Macfarlane, 2018) On the other hand, Lebanese growers do not show any incentive to grow hybrids. Because of their high-water requirements and their needs in heavy fertilization. Lebanese farmers do not have to invest in irrigation systems, Lebanese cannabis can grow without fertilizer and irrigation, and it is even sold at a higher price due to a better quality of this crop. The high quality of the Lebanese Cannabis makes it internationally recognized and sought after. However, irrigation and fertilization increase yield, cultivators rely on free source of water with no efforts for irrigation systems such as digging wells and installing irrigation pumps (Afsahi & Darwich, 2016). In addition to that access to good quality hybrid seeds is very hard in Lebanon. Since cannabis production is not legalized.

It is apparent that in both countries the marginalization of the farmers leads to cannabis production and although each country delt with it in a different manner the fact remains that cannabis is the means for these farmers to stay in their lands and face the adversities.

However, for Lebanese farmers growing cannabis is not a feasible solution anymore (El Jaradi, 2021). In fact, our research shows that although there are many reasons to turn to cannabis farming the profits do not exceed other produce in large

numbers. In fact, many problems that face the traditional farmers are starting to overlap with cannabis farmers. Whether it is the need for fertilization or irrigation to compete and increase production. Moreover, competing for the same water sources in an area where access cheap water is limited is causing lots of unrest between farmers. It is important to note that before the economic crisis in Lebanon access to water was easier since fuel was cheaper, and people could irrigate using wells and irrigation systems. But with the increase in fuel prices farmers are going back to the traditional water sources which are scarce and very limited. In addition to that, farmers who left traditional farming in order to escape the mass production problems and the monopoly of big farmers are facing the same problems in cannabis production. in addition to that the illegal nature of the crop forces the famers to seek protection from the local tribes adding another layer of complication to an already complicated issue. All these issues raise lots of questions on the future of cannabis farming and its feasibility for farmers who are the smallest beneficiaries of a very rich industry.

CHAPTER 7

CONCLUSION

Although the word cannabis has only one known interpretation in the dictionary, its meaning greatly varies for people. For some it is an illegal substance that needs to be controlled and its providers imprisoned. For others it is a guilty pleasure and for another group it is a source of livelihood. Having your main income from an illegal source is not an easy task. It takes an elaborate system outside the reach of the local government and its police force in order to thrive. And that is exactly what we have in the Baalbek-Hermel area, where local tribes have set up cannabis production from the Ottoman times and have elaborated a functioning system with its own protection and laws to thrive. However, times have changed, and these changes have greatly influenced the cannabis farmers.

The Syrian war has greatly affected cannabis production. On one the hand the government's focus shifted from the cannabis farmers to more pressing matters thus giving the farmers more freedom and peace in planting their produce. On the other hand, the smuggling routes through Syria were negatively affected making it more complicated to export and sell the product. Locally the economic situation in Lebanon affected all its citizens negatively and the cannabis farmers did not escape unscathed. The instability of the local currency vs the dollar made it harder for them to buy the necessary equipment and fertilizers needed for their produce and still turn a decent profit. Moreover, the evolution of the cannabis market made it essential for farmers to use fertilizers, irrigation and lots of equipment that were not necessary before. In fact, what used to be known as an "easy crop" which basically could be thrown in a field

with some water became a complicated process which required fertilizers, irrigation, and care in order to turn a decent profit. Furthermore, the need for irrigation caused the cannabis farmers to compete with other farmers planting legal crops (potatoes ...) for the limited water resources in the area. And incidentally, increasing the production costs since irrigation requires electricity thus the need for generators. Moreover, small farmers who rent land in order to plant their produce face even more costs and require large amounts of cannabis farms in order to turn in a decent profit

All these factors make cannabis production more costly and cut a big portion in the profits. Moreover, the main reason for cannabis planting, stated by the farmers we interviewed, was to increase the household income. Thus, this presents a dilemma for cannabis farmers and raises several questions regarding their livelihood: is cannabis farming still feasible? Is it still worth all the hassle and the trouble with the law? Do the cannabis farmers want this life for their children?

As per our survey the farmers who went into cannabis farming in the first place as a means to resist the agrarian crisis and remain in their receptive villages are finding it harder and harder to survive. In fact, the increase in the costs of production, the trouble with law and the increased competition for the limited water sources are not making their troubles worthwhile. Moreover, the profit from cannabis farming is becoming very close to the profit from other farmers planting legal crops such as potato. Moreover, what used to distinguish cannabis farmers in the past from legal farmer was the protection the clans offered them and the cannabis revenues which offered them a more comfortable life. Only the protection of the clans remains as the revenues decreased drastically.

In fact, the changing economy locally and worldwide requires Lebanon to start producing its own crops such as wheat since food security needs and becoming more pressing, thus opening a new door for cannabis farmers. But the question remains: are these farmers willing to take it and stop cannabis planting? Some of them already did, stating that what the government was unable to do in regard to stopping cannabis production the failing economy did. However, others still cling to this way of life, stating that this is all they know.

It is clear that planting cannabis is not only crop production, but a way of life filled with tradition and a source of pride for many farmers. It is their way of resisting and remaining in their villages despite the many hardships. However, times have changed and with these changes a new way of life seems to blossom. One interviewed farmer stated that he did not want this type of life for his children, he wanted them to go to university. It is important to note the economic conditions under which farmers grow their cannabis have changed. It is becoming clearer that while the dealers are becoming richer despite being squeezed by the crisis but way less than the farmers who still struggle and do not reap much of the profits. With times getting harder and the need for increased amounts money becoming a pressing need to survive things are starting to shift in the Bekaa Hermel area. Cannabis farming is proving that it is not what it used to be and a new source of income needs to be found for these farmers to remain in their villages.

Would these farmers change, or will they cling to their traditional ways? Only time will tell.

REFERENCES

- Aaraj, R. A. (2020). *Lebanon's green plans: Exploring the contribution of cannabis legalisation to sustainable rural development in Lebanon* (Master's thesis).
- Afsahi, K., 2015. Are Moroccan cannabis growers able to adapt to recent European market trend?. *International Journal of Drug Policy*, 3(26), pp.327-329.
- Afsahi, K. and Darwich, S., 2016. Hashish in Morocco and Lebanon: A comparative study. *International Journal of Drug Policy*, 31, pp.190-198.
- Amhez, N. E. H. (2019). Agrarian transition and food security in the village of Nabha, Central Bekaa.
- Assaad, F., 2021. *Forecasting demand for recreational Cannabis under potential conditions of legalized consumption: evidence from Beirut, Lebanon* (Doctoral dissertation).
- Behere, A.P., Behere, P.B. and Rao, T.S., 2017. Cannabis: Does it have a medicinal value?. *Indian Journal of Psychiatry*, 59(3), p.262.
- Bernstein, H., 2010. *Class dynamics of agrarian change* (Vol. 1). Kumarian Press.
- Blickman, T., 2017. *Morocco and cannabis: Reduction, containment or acceptance*. Transnational Institute.
- Bloomer, J., 2009. Using a political ecology framework to examine extra-legal livelihood strategies: a Lesotho-based case study of cultivation of and trade in cannabis. *Journal of Political Ecology*, 16(1), pp.49-69.
- Burgess, R.G., 2002. *In the field: An introduction to field research*. Routledge.

- Burke III, E. (1988). Rural collective action in the emergence of modern Lebanon: A comparative historical perspective. In N. Shehadi & D. Haffar-Mills (Eds.), *Lebanon: A History of Consensus and Conflict* (pp. 14-30). London: *Center for Lebanese Studies and I.B. Tauris*.
- Bush, R., 2016. *Family farming in the Near East and North Africa* (No. 151). Working Paper.
- Caulkins, J.P., 2010. Estimated cost of production for legalized cannabis. *Santa Monica, CA: RAND Corporation*.
- Chambers, I. (1983). *Rural Development: Putting the Last First*. London: *Longman*.
- Chouvy, P.A. and Macfarlane, J., 2018. Agricultural innovations in Morocco's cannabis industry. *International Journal of Drug Policy*, 58, pp.85-91.
- Conroy, M.E., Murray, D.L. and Rosset, P.M., 1996. *A cautionary tale: failed US development policy in Central America* (No. 338.917308 C754). Boulder, CO: Lynne Rienner Publishers.
- Darwish, M.R., Hamadeh, S. and Sharara, M., 2001. Economic sustainability of dry land use: the case study of Irsal, Lebanon. *Journal of Sustainable Agriculture*, 17(4), pp.91-102.
- Duvall, C.S., 2019. A brief agricultural history of cannabis in Africa, from prehistory to canna-colony. *EchoGéo*, (48).
- Evans, D.G., 2013. The economic impacts of marijuana legalization. *Journal of Global Drug Policy and Practice*, 7(4), pp.2-40.
- Fakhry, B., Abdulrahim, M. and Chahine, M.N., 2021. Medical Cannabis in Lebanon: History & Therapeutic, Ethical, and Social Challenges. A Narrative Review. *Archives of Clinical and Biomedical Research*, 5(2), pp.137-157.

- Hamieh, R. (2012). *Yammouneh Rises: Hashish is Our Livelihood—Democratic Underground*. <https://www.democraticunderground.com/1014185285>
- Hilal, N., Bou-Karroum, L., Ataya, N. and El-Jardali, F., 2018. K2P rapid response: legalizing cannabis cultivation: what we need to know & is Lebanon ready. *Knowledge to Policy (K2P) Center*.
- Houtart, F. (2020). *Peasant agriculture in Asia*, pp.256.
- Jelsma, M., Blickman, T., Kay, S., Metaal, P., Rivera, N. M., Putri, D., & Bewley-Taylor, D. (2019). *Drugs in the news*.
- Kassem, J., 2020. *The Political Economy of Agriculture in Lebanon: The Case of Machgara* (Doctoral dissertation).
- Kelly, E.C. and Formosa, M.L., 2020. The economic and cultural importance of cannabis production to a rural place. *Journal of Rural Studies*, 75(1), pp.1-8.
- Kent, R. and Poulton, C., 2008. Marginal Farmers, A Review of the Literature. Prepared on behalf of Concern Worldwide.
- King, D. (2005). Discussant Remarks, The Future of Small Farms: Proceedings of a Research Workshop, Wye, U.K. pp. 75. *IFPRI, ODI and Imperial College, London*.
- Kwa, A. (2001). Agriculture in developing countries: Which way forward? *Geneva: South Centre*.
- Martiniello, G., 2016. ‘Don’t stop the mill’: South African capital and agrarian change in Tanzania. *Third World Thematics: A TWQ Journal*, 1(5), pp.633-652.
- McMichael, P., 2013. Value-chain agriculture and debt relations: Contradictory outcomes. *Third World Quarterly*, 34(4), pp.671-690.

Mroue B. (2018). Bekaa Valley hopes for cannabis legalization. The Daily Star. Available at <http://www.dailystar.com.lb/News/Lebanon-News/2018/Jul-28/458204-bekaa-valley-hopes-for-cannabis-legalization.ashx>

Murphy, S., 2012. *Changing Perspectives: Small-scale farmers, markets and globalisation* (revised edition). IIED/Hivos, London/The Hague.

Patnaik, U., 2003. Global capitalism, deflation and agrarian crisis in developing countries. *Journal of Agrarian Change*, 3(1-2), pp.33-66.

Petran, T. (1987). *The Struggle for Modern Lebanon*. New York: Monthly Review Press.
Ramadan El Jaradi, N. (2021). Hashish Policies and Laws in Lebanon: Criminalization and the Path to Legalization. Available at SSRN 4052084.

Rose S. (2018). Cannabis in Lebanon: Production may be legal by the end of the year. Middle East Eye. Available at: <https://www.middleeasteye.net/news/cannabis-legal-lebanon-politician-start-work-law-bekka-valley-921840054>

Saade, R.F., 1973. Réalités de l'agriculture libanaise. *Revue Tiers Monde*, pp.425-436.

Sadr, S. K. (1972). *Land tenure in Lebanon*. (M.Sc. Thesis), American University of Beirut, Beirut, Lebanon.

Scoones, I., 2009. Livelihoods perspectives and rural development. *The journal of peasant studies*, 36(1), pp.171-196.

Shiva. (1999). 'Why Industrial Agriculture Cannot Feed the World', *Paper presented at the International Forum on Agriculture Workshop, Cuenevaca, Mexico, Feb.*

Traboulsi, F., 2012. *A history of modern Lebanon*. Pluto Press.

Van der Ploeg, J.D., Jingzhong, Y. and Schneider, S., 2012. Rural development through the construction of new, nested, markets: comparative perspectives from China, Brazil and the European Union. *Journal of Peasant Studies*, 39(1), pp.133-173.

Warf, B., 2014. High points: an historical geography of cannabis. *Geographical Review*, 104(4), pp.414-438.

Zurayk, R., 2013. GLOBAL VIEWS OF LOCAL FOOD SYSTEMS: Should Farmers Just Say No?. *Journal of Agriculture, Food Systems, and Community Development*, 4(1), pp.11-14.