

AMERICAN UNIVERSITY OF BEIRUT

ROLE OF MICROFINANCE ON SMALL-SCALE FARMERS
AND DAIRY PROCESSORS:
A CASE STUDY ON THE GOAT SECTOR
IN THE WEST BEKAA AND SHOUF AREAS IN LEBANON

by
LAMISSE NAIM KHAIRALLAH

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by
LAMISSE NAIM KHAIRALLAH

Approved by:

Giuliano Martiniello

Dr. Giuliano Martiniello, Assistant Professor
Agricultural Sciences

Advisor



Dr. Shady Hamadeh, Professor
Agricultural Sciences

Co-Advisor



Dr. Ali Chalak, Associate Professor
Agricultural Sciences

Member of Committee

Date of thesis defense: April 22, 2020

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AN ABSTRACT OF THE THESIS OF

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Title: Role of Microfinance on Small-Scale Farmers and Dairy Processors: A Case Study on the Goat Sector in West Bekaa and Shouf Areas in Lebanon

Microfinance, also microcredit, refers to a specific type of financial service aimed for customers with low-incomes and that do not qualify for commercial loans, and consists of lending money, usually in small amounts.

Small-scale goat farming and small-scale goat dairy productions are significant constituents in the livelihoods of marginal Lebanese rural communities. Reviving and aiding this sector is complementary in creating value for rural communities in terms of building sustainable livelihoods, safeguarding traditional functioning value chains, providing food security, and maintaining ecological wellbeing.

In Lebanon, the MF sector remains unsaturated and limited research is available on its performance. In addition, the traditional goat sector in Lebanon is underdeveloped and its socio-economic aspects are understudied. A qualitative socio-economic approach was employed to determine the perceived challenges, opportunities and context of goat farmers and dairy processor in the Shouf and West Bekaa areas and the role of Microfinance to these communities. Qualitative semi-structural interviews were conducted with 30 participants divided equally between the two areas.

Results show that challenges facing this sector are economic, regulatory, operational, social and hygienic as perceived by the participants. The economic challenges are namely markets, competition, demand and supply; and less financial and capital. The majority do not see opportunities in this sector in its current system and demand improvements and regulations to protect them as small-scale actors, as such, MF is not able to directly address challenges in this sector.

Keywords: Microfinance, Microcredit, Goat Farming, Goat Dairy Processing, Traditional Dairy Goat Products, Rural Development.

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GLOSSARY

MF – Microfinance

MFI – Microfinance Institution

WB – West Bekaa

Dekeneh – Small shop or small grocery store.

Hallab – Milk Collector.

Keshkek – Fermented milk (cow or goat) mixed with burghul (cereal) into a power form.

Laban – Yogurt.

Labneh – Strained yogurt with a creamy texture, similar to spreadable cheese.

Mouneh – comes from Arabic word ‘to store’. Food tradition of preserving products by processing fruits, vegetables, animal by-products, and other to last usually for an annum or more.

Mshaa – Lands owned or under the management of a Municipality/District, usually open or empty lands.

Qawarma – Preserved meat in fat.

Serdele/ Ambarees – A traditional non-pasteurized cheese prepared by fermenting milk in jars.

Waqf – Property owned by Religious Institutions.

CHAPTER I

INTRODUCTION

A. Overview

Microfinance, also microcredit, refers to a specific type of financial service aimed for customers with low-incomes and who do not qualify for commercial loans, and consists of lending money, usually in small amounts, and can also include in some cases micro-savings, micro-insurance, and other services such as capacity building and trainings. This study will focus on Microfinance as a form of money lending; microcredit or microloans.

The Microfinance emergence as a development tool has been highlighted by many researchers and stakeholders. Microfinance Institutions (MFIs) have been expanding all over the world for the past few decades. Many believe that microfinance is an empowering instrument in the hands of the poor that allows for financial inclusion, while others perceive it as means for capital financial market expansion. Its vast expansion is supported by aid and development agencies adopting it as an instrument to fight poverty and a financial resource for the poor to start or maintain projects that will generate income. Others question the impact of this model. Skeptics have investigated the rapid expansion and invasion of microfinance in poor areas and raised concerns regarding the intentions and motives of MFIs and the real effect on the poor individuals and communities. Evidence provide that MFIs have globally spread in poor areas especially facing agrarian crises, government neglect, and underdevelopment. What role does microfinance play with struggling communities?

The Lebanese Agricultural sector is underappreciated, underdeveloped, and poorly managed. Goat production and herding are significant constituents in the livelihoods of Lebanese rural communities and are part of a larger local food system (Hamadeh et al., 1996, Chedid et al., 2018). Agricultural activities are becoming less attractive for villagers. Many threats face this sector leading to the diminishing number of small-scale farmers and processors. The production of goat products such as Ambarees and Keshek are traditional, resilient, climate-smart, and are part of a culinary culture. Efforts in finding solutions to save and expand these productions are needed.

This project suggests the assessment of microfinance as a potential solution and its role in aiding the poor, and in particular small-scale goat farmers and goat dairy product processors.

B. Topic and Purpose

Microfinance is a widely debated topic attracting a large audience of enthusiasts and adversaries. In the last 20 years the role of development finance has expanded in the Global South and is a key player in the development discourse.

Ongoing debates on microfinance suggest that it has the potential to empower disadvantaged segments of the population, whereby participants can utilize small loans to manage cashflows and make investments. Supporters are encouraging the expansion of MFIs and see it as a solution that can aid individuals and communities suffering from economic pressures to lift themselves out of poverty and become entrepreneurs (Bakhtiari, 2006). Others see it as a neoliberal tactic to rework debt relations whereby

the poor are still indebted to the richer leaving little room for entrepreneurship (Taylor, 2011).

Rural people, including farmers and small-scale dairy processors, are often left out of the conventional financial service sector and agriculture attracts less interest by investors. Rural poor are becoming poorer with the worsening of national economic conditions and the widening of the gap between rich and poor. Evidence show that microfinance had positive impact in some cases and negative in others. Microfinance was initially dominated by “altruistic nonprofit and social service organizations” and later incorporated financial institutions and commercial banks (Chasmar, 2009). Supporters of the latter model defend by stating that it “links dormant money with idle labor” while opposers question mission, intention, and interest valuation.

In older times, the majority of the Lebanese population was rural and counted mainly on agricultural activities as a livelihood. Villagers used to auto-consume their own productions to satisfy their nutritional needs. Goat farming constituted a major component of agricultural sector on which villagers based their lifestyle and consumption habits around raising goats. Nonetheless, societal changes and advancements drove farmers to diversify their livelihoods to other on-farm or off-farm activities (Dick et al., 2008) or to move away from agriculture and their villages. Reviving this sector and expanding it is complementary in creating value for rural communities in terms of building sustainable livelihoods, safeguarding a traditional functioning value chain, providing food security, and maintaining ecological wellbeing.

Economic, environmental, regulatory, operational, social and hygienic concerns are threatening this sector and exerting pressure on existing farmers and

leading to the decrease in interest and number of small herders and processors (Chedid et al., 2018, Hosri et al., 2016, El Balaa and Marie, 2008). Threats can be identified as external, being climatic changes, high production costs, lack of state support and regulation, availability and accessibility of land and feed, social pressures, economic pressures, and demand, markets, and competitiveness with other dairy products; while internal challenges are namely, low productivity, food safety and hygiene of farm and production, inefficient distribution channels, and lack of financial capital to invest and sustain operations.

Goat farming in Lebanon has gone through many different shifts, many of which are due directly and indirectly to economic reasons. What was traditionally agropastoral systems shifted to become more sedentary (Hamadeh et al., 1999). In addition, traditional production of goat dairy products is also under risk especially in their low demand and food safety standards, thus marketing and sales. In Lebanon, goat milk products represent cultural heritage and can be region specific such as Ambarees and Serdalli cheese common to the West Bekaa and Shouf, where they are produced following tradition artisanal techniques. Both small-scale farmers and processors are valuable actors in the goat value chain and empowering and enhancing their conditions is vital for the development of this sector and rurality.

Small-scale rural goat farmers and dairy processor fall into the category of rural poor. Their conditions and challenges are affecting them and their households from one end, and affecting the whole sector, agriculture, and rurality from another end. To what extent can microfinance address the stresses and empower this subpopulation and this sector? And how can microfinance fit and act as an instrument for farmers to be

successful small entrepreneurs in their sector to benefit themselves and attract others as well to expand this sector?

C. Importance and Significance

Limited research is done on Microfinance sector and its impact in Lebanon. Most research and information available is by MFIs and donors and less by independent scholars. Moreover, debates on microfinance are missing the voices and views of the rural poor, participating and non-participating.

Limited research as well is done to assess the economic and financial status of goat farmers and potential investment opportunities in this sector in Lebanon. Also, little effort is done to sustainably promote and expand this sector and attract interest and investment. Impact of microfinance on the financial capacity of goat farmers will be assessed and concluded based on farmers' experience and perspective.

This research firstly aims at studying the current situation and conditions of microfinance in Lebanon and its availability, accessibility, and programs offered to small-scale goat dairy processors and farmers in Shouf and West Bekaa areas chosen as a case study. Secondly, aims at documenting and analyzing the perceptions of candidates on microfinance and at examining the challenges of the goat sector to be able to assess the possible contribution and impact of microfinance to the livelihoods of small-scale rural farmers, and to rurality on a larger scale. The results will provide theoretical, empirical and statistical research material for researchers, practitioners, and stakeholders regarding the impact of microfinance on rural community development.

D. Research Questions

- i. Is microfinance really accessible and available for the rural poor?
- ii. Do farmers perceive microloans as a need or solution to their economic problems?
- iii. Does microfinance play an empowering role by improving capacity of its holder and creating microentrepreneurs? What types of farmer challenges is microfinance able to solve and respond to?

CHAPTER II

LITERATURE REVIEW

A. **Microfinance: Overview**

1. ***History of Development Finance***

Northern aid has been around for more than half a century, yet Global South still remains underdeveloped (Khandakar and Danopoulos, 2004). Succeeding the WWII disasters, the international agreement for collaboration of government and liberty of national economy, Bretton Woods in 1944, paved way for the formation of the International Monetary Fund (IMF) and World Bank that were intended to soothe economic problems by lending money for reconstruction and development and aiding in balancing payment difficulties (George, 1999). The agreement initially aimed to push governments to regulate national and international systems; Keynesian theory. Then, the approach collapsed when industrial countries couldn't keep up with output growth post-war till the 70s. Thereafter, neoliberalism became the new world economic religion (George, 1999); hence, the expansion of international financial markets and financial globalization (Taylor, 1997). Neoliberalism claims that economy should dictate its rules to society, and not the other way around. Polanyi predicted in his book "The Great Transformation" in 1944, that allowing free-market system will result in the "demolition of society" and that "laissez-faire was planned". While advocates of neoliberalism such as Margaret Thatcher, PM of UK from 1979 till 1990, highlighted the importance of competition for creating more efficient markets.

The IMF and World Bank adopted neoliberalism in the 70s promoted by Reagan and Thatcher, where the IMF works to stabilize macroeconomy while World Bank encourages market deregulation and supply-side economics in efforts to fight poverty (Taylor, 1997).

Microcredit found a compelling neoliberal environment to emerge from a new development paradigm on the basis that the poor can self-help, encouraged by the World Bank among others (Bateman, 2012, Khandakar and Danopoulos, 2004). However, microfinance did not just appear in the late 70s spontaneously. It is the result of institutional actors working at the national and transnational level to place microfinance as key agent of development based on financial market activity (Mader, 2015), just like Polanyi predicted. Institutions influence the motives, decision-making process, and power relation of actors to shape the outcomes (Mader, 2015). Microfinance also touches base with the global moral underpinning Financial Inclusion FI (Copestake et al., 2016, Taylor, 2012). The World Bank has been pushing the commercialization of microfinance with the FI discourse since the 90s (Taylor, 2012).

2. Microfinance: A Global View

Microfinance, also microcredit, refers to a specific type of financial service aimed for customers with low-incomes that mainly consists of lending money, usually in small amounts, and can also include in some cases micro-savings, micro-insurance, and other services such as capacity building and training. This study will focus on Microfinance only as a form of lending; microcredit or microloans. Microlending, globally, is not a new concept. Different forms of lending took place over centuries and

in the 18th and 19th century mainly by credit unions and cooperative banks. Its modern form emerged in the 70s with informal types of microfinance institutions (MFI) that called for funding activities that persuade social benefit over MFI profitability; for example, rotating saving and credit associations (ROSCAs) and peer-to-peer lending (Srnc and Svobodová, 2009). In the 80s, more formal institutions rose to prominence with Professor Muhammad Yunus at the top of this movement. Prof. Yunus initiated the Grameen Bank in Bangladesh in 1983, one of the first modern formal MFIs, fueled by the belief that credit is a fundamental human right and should be accessible to everyone.

The US-educated economist and Nobel Prize winner, Yunus, is applauded by many who see him as an innovator with a humble optimistic demeanor with a drive to alleviate poverty. Others to the left see him as “selling free-market neoliberalism in the guise of liberal do-goodism” (Engler, 2009).

Microfinance was initiated by the belief that credit is an empowering agent that allows the poor, who are not creditworthy and eligible for loans, to develop their socio-economic condition. Microfinance is the result of the demand for capital for self-employment and small and micro-businesses. On a microeconomic level, microfinance has proven to benefit individuals through encouraging and funding income-generating activities, consumption smoothing, and asset building (Pitt and Khandker, 1998). Khandker (2005) concluded through a study using the consumption approach, that microfinance reduces poverty of participating and non-participating households though increased consumption. As per the Grameen Bank regulations, loans are restricted to income-generation activities, which ensures the repayment of the loan (Grameen Bank, 2019a) while encouraging sustainable livelihoods. Microfinanced activities are characterized as: self-sustaining, self-expanding and self-perpetuating. Evidence from

Grameen Bank reassures that repayment rate of microfinance is higher than repayment rates in commercial lending (Hossain and Knight, 2008).

Many studies conclude that microfinance has a positive impact on a macroeconomic level induced by the aggregate result of individual and household activities generated by microloans, the spillover effect (Khandker, 2005). A study done to test the effect of microfinance on poverty alleviation was done on more than 50 developing countries showed that countries with a higher MFIs' gross loan portfolio per capita tend to have lower poverty head count ratio (Miled and Rejeb, 2015). Bakhtiari (2006) argues that microfinance can contribute to a fairer resource allocation, opening up of markets and outlets, and adoption of better technology, thus aiding communities to get their economic cycles to circulate. Using a cross-country panel study, results show that countries with higher gross MFI loan portfolio per capita have lower poverty indications, GDP and equality figures, and also reduces the depth and severity of poverty (Imai et al., 2012). Another approach to measuring the direct and indirect effects on poverty was done by Mosley (2001) in Bolivia, having a large microfinance market, resulted in a positive impact of lending on income generation, consumption, and asset poverty, but negligible impact on extreme poverty through putting the extremely poor in a risky coping position that might lead them to defaulting.

Microfinance was proven to have a positive impact on women empowerment. In poor patriarchal societies, assets, savings, and petty cash are in the custody of the male figure within a household. Due to inferior status they have no decision-making power thus no power over access and ownership of property and resources. Upon the emergence of the Grameen Bank in Bangladesh, concentration on women was one of the major concerns and a noticeable 96% of the bank's borrowers are women. Women

are often discriminated and seen as unreliable financial clientele and are looked upon by male bank (commercial) employees, while MFIs have given a great deal of attention to gender and female empowerment by creating support systems that enable women to fulfil their societal, familial, and practical responsibilities and rights (Hossain and Knight, 2008). Yunus believed that women are more likely to spend money on income-generating activities and invest in the household rather than use the loan for repayment of previous loans. Mahmud (2003) argues that microfinance enhanced women's ability to exercise agency, equality, and independence in intra-household bargaining processes, but has little effect on women's increased access to "choice-enhancing" resources.

Microfinance requires good entrepreneurial skills and a favorable local market to achieve higher returns, otherwise, it can become a burden and lead to a worse economic condition. These external factors may be misleading when calculating effect of microfinance (Khandker, 2005). Microfinance improves lives on different levels; poverty, bargaining power within a household, and condition of health, food, education, sanitation, and household emergencies among other social necessities and development indicators that defines livelihoods. Microfinance is considered by many a tool to attain the Millennium Development Goals (Littlefield et al., 2003, Mazumder and Lu, 2015)

Other critiques of Microfinance find this sector to have negative effects that outweigh the positives. In 1997, India witnessed the farmer suicide that was caused by the unbearable burden of debt. Corporate globalization monopolized seed input and patented against seed saving which transformed a free resource for farmers to an expensive commodity they have to buy yearly, mostly through debt where MF founded its outlets. Due to that and the fall in prices of commodities and free trade, the burden of debt was unbearable and forced farmers to commit suicide (Münster, 2012). The causes

of the suicides may not be directly related to microfinance in specific, but the repercussions of corporate monopoly have series of effect on debt relations.

What first started as non-profit development project and initiative to help the poor get access to money, expanded in poor areas in India, like Andhar Pradesh ,with a large demand for credit to become for-profit MFIs owned by shareholders and funded by investors driven to expand and find new markets, and the profits were notably very high (Taylor, 2011, Montgomery, 2005). Taylor (2011) adds that the for-profit model was rationalized by the idea of credit surplus of investors is effectively linked to poor people with shortages. What started as a bottom-up approach to development by giving the poor access to an important resource transformed to become “top-down donor-driven” supply (Srniec and Svobodová, 2009). Linking this to corporate globalization and indebtedness, an argument exists that microfinance did not expand to help in entrepreneurial and income-generating activities intended to lift the poor out of their poverty, but was rather used to repay existing loans and cope with commercial farming, in addition, to pay for healthcare costs and consumption needs (Arisudi and Gapor, 2010, Taylor, 2011). The 2010 farmers suicide was a result of the harsh methods used to force and threaten farmers to repay their dues. “The lack of regulation in microfinance, had allowed institutions to exploit the poor in the name of third-world development” (Levin, 2012). Levin (2012) also associates the suicides to the unregulated sector which allowed MFIs to impose high interest rates and the encouragement more and more lending without provision to the purpose of borrowing, as some were borrowing to drink alcohol, but were encouraged by investors to increase the lending portfolio for higher returns, that later collapsed in 2010. Taylor (2011) examines the suicide crisis from the demand side and explores why there was a ready demand for microloans

despite the high interest rates, and concludes that the expansion of microfinance served to “rework existing debt relations” that Indian society has based on the different castes, classes, and gender relations.

The discourse of Financial Inclusion underpins that poverty is context-less and that the poor are homogenized subpopulations all sharing the situation of ‘Financial Exclusion’ and that Microfinance can be administered as a development tool to fight poverty regardless of social, economic, and political context (Taylor, 2012).

Default on repayment of loans is a concern. Hossain and Knight (2008) categorizes causes into 4: institutional (unskilled and insufficient employees and lack of clear communication of expectations), household (poor investing skills), group dynamic (in group-lending), and external factors such as environment degradation. The high interest rates in microfinance are also a cause and are explained to be high to secure self-continuation and rotation of credit. In Bangladesh, MF rates are at 20% while commercial loans are at 12% (Grameen Bank, 2019b). Serrano-Cinca et al. (2016) argues that MFIs lack the social and environmental impact assessment (being part of the MF mission) when evaluating credit applications, threatening reputational risk, due to the focus on profit-maximization. MFIs focus on more evaluating their portfolio growth and repayment statistics to publish their success, and less on evaluating the social and environmental impact of the loan of the livelihoods and wellbeing of the clients. Opinions on whether loan programs should lend for specific purpose or not is still in debate. Advocates of having purposeful programs argue that this method would ensure that money will not be wasted. Opponents state that people are free in the manner of using their money.

Morduch (2000) explains the schism between “financially-minded donors” and “socially-minded programs”. Many MFIs rely on subsidies to operate. MFIs that care about social impact and supply credit to the poorest of the poor, namely farmers and craftsmen with slow income-generation, cannot increase their interest, due to the slow income-generation nature of work of their clients, they fear they will default if increased. Socially-minded MFIs (usually NGOs) are usually subsidized and their sustainability is at risk if they cannot make ends meet with only repayments; phenomenon dubbed as “the microfinance schism” (Morduch, 2000). The schism lies between keeping rates low to aid beneficiaries or increase rate to be able to sustain their operations and attract investors.

Weiss and Montgomery (2005) argue the ideology that microfinance is intended and benefits the “core poor”. They prove through a study that MFIs prefer serving, and actually are serving, the “better-off” poor and “potential micro-entrepreneurs” than high-risk poorest. In addition, competition with commercial banks in attracting clients led MFIs to seek clients with easy access; i.e. urban clients, who have high turnover businesses; such as retail rather than farming, thus forgetting the social mission (Kent and Dacin, 2013). As for microfinance and poverty alleviation, even with gained resulting from loan activities, the macroeconomic effect, ie effect on poverty, is likely to be minimal due to the fact that microfinance activities and outcomes are too small to affect the aggregate economy, and in a country with slow economic growth, the case for many developing countries, borrowing will act as redistribution of income circulated and is not likely to induce growth (Khandker, 2005). Another study by Banerjee et al. (2015), found that Microfinance has little significance in health, education, and women empowerment. Empowerment is about change, choice, and

power; and in many cases in developing countries, many women have little control over the money they borrow or are harassed due to late repayments, so they might be better off without (Ganle et al., 2015).

A large share of microfinance portfolios is joint-liability. This approach to lending assumes a group of borrowers that together get a loan and are all responsible for repayment. This method of lending presents a form of collateral for MFIs; if one person cannot make payments, the whole group is responsible to cover the shortage. MFIs rely on the pressure and responsibility of the whole group to monitor each other (Hermes and Lensink, 2007). Research shows that group-lending has better repayment results and less defaults. In case of group default, no member is granted another loan in the future. The downside of the method is social sanctions, peer pressure, and public shame.

B. The Goat Sector: A Comparative View

Small ruminants have been and are an integral element in the environmental, sociological, and nutritional rural mosaic in many countries and cultures (Ruiz et al., 2009). 97.3% of goats worldwide are reared in developing countries where goat production systems have evolved to overcome many constraints, environmental and socioeconomic, to include integrated crop-livestock systems (Escareño et al., 2013). Farming in those areas require the dwellers' knowhow along with efficient and effective technologies to optimize on natural and local resources. Goats have been traditionally popular in mountainous, semi-arid areas, and even deserts with their biological and structural features wherein goats can transform land unsuitable for cultivation and low-quality forage into a valuable benefit (Lombardi, 2005, Alrousan, 2009). Small

ruminant grazing systems are a form of sustainable and resilient production that benefits the environment and community on different levels. In addition to adaptability, goats are particularly popular among rural livelihoods due to their easily cashable value as assets as their milk and manure can be sold to different clients or sold as meat in times of need; as dubbed by Gandhi, goats are “poor man’s cow” (Cooper and Palmer, 2005, Escareño et al., 2013). In reality, the goat sector has been lagging development and excluded from organized markets when compared to other productions like cattle, poultry and pigs (Dubeuf et al., 2014).

Farming communities in many areas have witnessed a significant shift in production systems to intensive farming due to: efficiency reasons being intensification of plant production, elimination of seasonality products, and replacement of local breeds by high production alternatives, and socio-economic reasons being decreasing number of herders and decreasing land accessibility (Ruiz et al., 2009).

Goat farming practices and social patterns among small ruminant communities coincide and differ across different countries and cultures. Similar to Lebanon, goat production contributes to many livelihoods and rural communities in Syria and Jordan, namely the Levant area, with similar goat breeds adapted to mountainous and arid to semi-arid conditions. Goat milk in both countries is largely processed by households and small-scale processors into local and traditional products (Hilali et al., 2011). Almost all family members contribute to the goat process by dividing chores. The production system in Syria is described as agropastoral wherein most farmers owned their farmlands planted with wheat, barley, fava, or other. Herders also herd their goats in open lands owned by the government with no restriction on access except for protected areas. As of 1958, due to increased deforestation, the government

implemented a law to protect green areas by restricting goat number to one per family which decreased the overall count of herds. Recently, the government decided to ease on restriction as it realized the importance of small ruminants to rural communities (Wurzinger et al., 2008). However, the government provides free vaccines for several common diseases. This sector remains underdeveloped in Syria.

The production system in Jordan is pastoral (nomadic and semi-nomadic) and agropastoral (Alrousan, 2009). A cooperative project for sheep has been developed in 1996 in Jordan to improve marketing and profitability through collection and processing centers while employing vulnerable subpopulation such as rural women for manual labor (Rubino et al., 2006). This model targets sheep specifically but since many herders raise both, sheep and goat, it has been a valuable attribute to small ruminant communities. This cooperative model can be replicated while integrating goat products in neighboring countries like Lebanon and Syria to enhance this sector.

In the MENA region, specifically in the Arabian Peninsula, with the arid climate of the Arabian Desert, rural dwellers are particularly involved in animal husbandry and rearing small ruminants as nomadic pastoralists or agropastoralists (Aldosari, 2018, Sherif et al., 2014). This system is also common among other Arab countries like Egypt with arid conditions and Bedouin communities (Aboul-Naga et al., 2014). Goats are among the favorite domesticated animals to raise in nomadic communities since they provide nutritional and economic value and are adapted to dry conditions. However, production is characterized as poor due to scarce feed and barren lands worsening with climate change.

Goat farming in Europe is more common around the Mediterranean basin; France, Italy, Spain, and Greece. In France, alternate production enterprises are rare due to land availability and fertility, while cheap forage is available at high altitudes and only usable by small-ruminants. For “cheese” goat systems, herding is extensive and based on abundance of forage, while “milk” goat systems are more intensified. In Spain, farming system is usually small to medium-scale and semi-extensive employing agropastoral systems, while some engaging in transhumance herding during summer in the mountains. In Italy especially in Sardinia, which is the leader region in goat rearing, goats are mainly kept in mountainous areas where the farming system is characterized by low inputs and stocking rates. While in Greece, ranked first in goat milk in the EU, farming systems are described commonly as semi-intensive and sedentary extensive (de Rancourt et al., 2006, Escareño et al., 2013, Castel et al., 2003).

In the European Union, sheep and goats are among the highly subsidized agricultural productions with a direct subsidy on milk production increasing farmers’ productivity. The policies and regulations established by the EU may contribute in the future to the establishment of policies geared towards the sustainability of the goat raising activity and the improvement of life standards for goat producers (Gürsoy, 2006). In France, goat milk production is organized by cooperatives since the 1950s. These institutions have arranged quality control centers, milk collection centers, along with other milk and dairy services (Escareño et al., 2013). Goat dairy products in France are well marketed and demanded since they are advertised as “organic products” due to being pasture based (Martini et al., 2007). A large range of lactic cheeses has been developed in phase with consumer tastes. Since 1990, the French goat cheese market

has grown 72% (Dubeuf, 2005). Similarly, Spanish farmers are organized into cooperatives or organizations per zone (Castel et al., 2003).

In developed countries, the goat sector is market oriented and development is depended on specific valuation of goat products and their target markets of consumers and investors (Dubeuf, 2011).

In developing countries, there exists a lack of conservation and organization policies for this sector especially economic orientation policies. In addition, there exists lack of research and censuses that are especially participatory in addressing small-scale farmers' needs. As Morand-Fehr et al. (2004) explains, the return to 'land and nature' movement, the interest in organic farming, and the respect for authentic original products linked to specific geographic areas has brought goat products back into good fashion, when goat products were once considered as commodities for the poor or lower classes. As such, improvements, attention, and research in this sector can create opportunities by absorbing the current interest through developing a participatory strategy to capitalize on local resources.

Short value chains and informal market networks for goat milk products especially in developing countries lack hygienic and food safety standards. Codex Alimentarius and FAO have chosen the HACCP (Hazard Analysis Critical Control Point) method as a method of reference for milk quality control (FAO/CIRVAL, 2002). In Europe, countries follow the 92/46 and 94/71 EU Directives for sheep and goat bacteriological quality (Pirisi et al., 2007). The quality of milk and products is directly related to its success in marketability and of fundamental economic importance. The goat milk industry has to take note of these developments in sanitation and calculate the

investments required for it to be viable within the milk products market. An incentive payment for milk quality, including sanitation standards, has been established and well organized in some developed countries including France, Spain, Italy (especially Sardinia), and other. The quality criteria differ among regions but mainly consist of standards for milk protein, casein content, fat content, bacterial count, etc. These incentives motivate and organize goat production (Pirisi et al., 2007).

As Dubeuf (2005) notes, exchange of evaluation, solutions, and technologies for the goat sector may be beneficial but also harmful if not oriented and adapted to each unique context without a prior analysis of the market potentialities. In addition, it is important for strategies to include the farmers themselves in strategy making. As suggested, the cooperative system is a method of exchange and mediation where specific associations could establish relations with the state authorities, research and training centers and with organizations involved in national and international cooperation and funding, including partnerships between technical and social actors (Dubeuf, 2014). Developing the goat sector should be part of an overall strategy to develop the rural and agro-food systems. Some initiatives to encourage goat productions in the European Mediterranean basin are; fairs and events to promote cheeses and products, food-tourism initiatives, publication (brochures, DVD, advertisements, etc), trainings, etc. These initiatives are often led by public institutions, including universities, extension agencies, and local administration, or by NGOs and the private sector (Dubeuf et al., 2010).

C. The Lebanese Context

1. *The rural context & Agricultural Sector*

There is no real definition of rural areas but rurality is usual attributed to lower demographic density. Rurality in Lebanon is often directly linked to “rural areas, countryside and agriculture”, according to the Lebanese Ministry of Tourism. However, the Syrian refugee influx has changed population density, whereby many rural areas became heavily crowded.

The poorest rural areas are dominantly Akkar, North, South, Bekaa, and Baalbeck-Hermel. The rural poor are mostly small-scale farmers, wage laborers, fishermen, and women head of households².

Throughout history, Lebanon is known to be an ongoing ‘developing’ country. The poor, and living in the rural, especially, carry a huge load of burden of lagging economic and political conditions. Even when historians and economists speak of the prosperous times of Lebanese history pre-war time, in the 1960s and 1970s, prosperity was not distributed evenly, neglecting rural areas that lagged on social and economic levels (UNDP website). It is evident that in Lebanon, development was mainly concerned with economic growth in the post-war period, the 1990s, up until the present day and in specific the development of the private sector (Makdisi, 2004). Lack of employment opportunities, low wages, landlessness, poor services and infrastructure, and unequal relations in the rural³ are push drivers that result in the high urban

² Information taken from presentation by UN-ESCWA on Rural Context in Lebanon, 2019.

³ Powerful men (in rare cases women) in rural areas have their hands on the available resources and are often the front face when representing the beneficiaries in rural development

migration rate. Only 12% population is rural and constitutes 25% of labor force (excluding informal work) (World Bank, 2017).

Along with the arrival of the Syrian refugees starting 2011, many found refuge in rural areas for the availability of space and jobs. In the Bekaa and Akkar, Syrian workers, refugees and non-refugees, are hired especially in agricultural and labor-intensive types of jobs due to the cheap wages. Lebanese workers are left with even scarcer job opportunities.

Only 6% of employed labor force work in agriculture and those are among the poorest of workers where 40% of farmers live below poverty line, mostly residing in the Bekaa Valley (ETF, 2015). The agricultural sector faces institutional, policy, technological, and financial resources constraints (FAO, 2012). The agricultural sector is the least attractive sector for investors (ETF, 2015). For a while now, and increased with Syrian crisis, the agriculture sector is seen as attractive cause for NGO initiatives.

In older times, the majority of the Lebanese population was rural and counted mainly on agricultural activities as a livelihood. Goat farming constituted a major component of agricultural sector on which villagers based their lifestyle and consumption habits around raising goats. Nonetheless, societal changes and advancements drove farmers to move away from agriculture and their villages. It is reported that as of 2010, the average age of farmers, from different fields including livestock, was 52, and only 12% of cattle and small ruminants farmers are under 35 years old (Haddad and Chamoun, 2014)

projects of organizations. These powerful men are usually the richest that own the big business in the rural, lands, head of municipalities, etc.

Many concerns are threatening this sector and exerting pressure on existing farmers and leading to the decrease in interest and number of small herders and processors. Threats can be identified as external, being climatic changes, high production costs, lack of state support and regulation, availability and accessibility of land and feed, social pressures, economic pressures, and demand, markets, and competitiveness with other dairy products; while internal challenges are namely, low productivity, food safety and hygiene of farm and production, inefficient distribution channels, and lack of financial capital to invest and sustain operations.

2. *Microfinance in Lebanon*

Due to constant turmoil and economic instability, the microfinance sector wasn't fully established until the late 1990s (Chamberlain, 2015). Under the Lebanese law, any institution is allowed to engage in lending practices. Most of the dominant MFIs in Lebanon are NGOs registered and governed by the Ministry of Internal Affairs. NGOs in Lebanon are not monitored often and regulations are lenient, providing a comfortable environment to operate freely. On the other hand, banks and other financial institutions are under the governance of the Central Bank. Many MFIs constitute of partnerships with commercial banks.

Like the situation in Lebanese politics, some MFIs are affiliated with a political party or are associated with a religious sect. A perfect example would be Al Qard al Hassan, which is involved with Hezbollah. There are two views on that; first, the positive view that Hezbollah cares about the wellbeing of locals, supporter and opponents, and is especially active in vulnerable times after a crisis like the 2006 war

with Israel, and is providing much needed assistance to the people. The other view is that Hezbollah is using vulnerability of people to gain their support. Another example among others is EMKAN, founded by Hariri Foundation. Other MFIs were especially active and received funding following the Syrian refugee crisis to boost Lebanese agribusinesses (VEGA, 2015). We can conclude that Microfinance is highly influenced by the current political, social, and economic trends. In bullish times, especially after the end of a crisis, the financial will sector will prosper and attract investments from rich and poor, the latter employing microfinance to venture.

MFIs in Lebanon are NGOs, Financial institutions registered under Lebanese anonymous companies (sal), Cooperatives, or banks. MFIs are not required by law to disclose their financial reports, but many do on their websites especially NGOs. USAID has played a big role in promoting Microfinance but initiating the “Lebanon Investment in Microfinance (LIM)” program that provided grants and technical assistance to 9 MFIs, including the 3 largest MFIs: Al Majmoua, Vitas, and ADR (excluding Al Qard Al Hasan). The LIM program also assisted in founding the Lebanese Microfinance Association (LMFA) in 2015. The association aids in facilitating communication among MFIs, conducting market studies, and provide trainings and services (LMFA website). The Central Bank as well helped to stimulate microfinance by issuing a circular “permitting commercial banks to use up to five percent of their mandatory reserve requirement for extending small loans⁴” (CGAP, 2009). The growing number of MFIs

⁴ A small loan is a "Lebanese currency loan granted by a 'small loans institution' or a financial institution to individuals or small establishments that comprise no more than four persons to assist them in creating and developing production (industrial, agricultural, crafts), services, tourism or trade projects, provided that the loan amount does not exceed LBP 10,000,000 (US\$7000) with a maturity of no more than three years." CGAP 2009. Diagnostic Report on the Legal and Regulatory Environment for Microfinance in Lebanon.

in Lebanon is creating competition that is beneficial for product and service innovation and diversification, which lacked in the late 2000s where there were only a few MFIs operating according to the CGAP (2009) report.

In addition, the vast expansion of banks in rural areas and their venturing into offering microloans can be perceived as a form of finance capitalism where banks want to expand their markets further. 50% of rural adults do not have banking accounts and the Central Bank is encouraging the increase of bank branches and ATMs in rural areas (Wahidi, 2017).

Salhab and Ali (2015) conclude that microfinance in the MENA region is perceived differently due to two major concepts; first, the existence and growth of Islamic banking, a banking system that lends without adding interest, second, the misconception and unawareness of people around this topic that leads to false expectations, where they expect it to solve problems of poverty and unemployment or creates confusion among the people about the identity of the MFIs.

Microcredit portfolio almost serves 15% of Lebanese households including poor households that rely on small productive and consumption loans to manage their financial lives (CGAP, 2017). In Lebanon, special microloans products are intended to finance agriculture endeavors and small productive activities.

In Lebanese context, group loans are not popular since socially people do not like to share their financial information (profit and debt) (Salhab and Ali, 2015). In addition, a study showed that microcredit beneficiaries are mostly men (Wahidi, 2017).

There is limited research on the effect of microfinance on rural people and rural development in Lebanon, in general. This paper will address the gap in assessing

the extent to which microfinance is able to aid in development by understanding the current situation of Microfinance and the perception of potential clients of this sector.

3. *The Goat Sector in Lebanon*

Small ruminant dairy production is an important factor in the more complex Lebanese agricultural sector, and play a key role in the economic cycles of marginal communities in rural Lebanon (Hamadeh et al., 2006, Chedid et al., 2018). Most small ruminant herds are found in the Bekaa and its adjacent steppic areas. The size of goat flocks has decreased over a 10-year-period from 417,000 heads (2000) to 400,000 (2011) (Sattout, 2014) then increased to 450,000 in 2018, but number of small-scale herders decreased (IFAD, 2017). Economic, environmental, regulatory, operational, social and hygienic concerns are threatening this sector. Major challenges are results of climatic changes, low productivity, lack of appropriate regulation, high production costs, availability and accessibility of land and feed, social pressures, and a more recent challenge with the influx of Syrian refugees along with their small-size herds (Chedid et al., 2018, Hosri et al., 2016, El Balaa and Marie, 2008). IFAD (2017) report emphasizes the health of animals and hygienic constraints in farming and house productions and links low animal and production yields to inefficient value chains.

The dominant goat breed in Lebanon is Baladi breed (96.8%) which is adapted to semiarid conditions of Lebanese areas, sturdy in mountainous typologies, tolerates poor nutritional conditions and regional diseases (Tabet et al., 2016).

The share of goat milk is only 3% while cow milk is 95% (and sheep milk 2%) (IFAD, 2017). Cow milk is yearlong while goat is seasonal which places goat

production in an inferior position. In addition, dairy cattle production system is largely landless and domesticated, integrated into industrial processing systems, demanded more as a product, and thus perceived as more profitable, which resulted in the diminishing of the goat sector in size and economic impact (Hosri et al., 2016). Hosri et al. (2016) emphasized the urgency of “saving the value chain of small ruminants from extinction by holding its economic and social impact particularly sensitive environments with complex ecological balances”.

Production systems were identified for the semi-arid nature in Lebanon by Hamadeh et al. (1996): semi-nomadic, semi-sedentary and transhumant. They all share similar difficulties; health care, high feed prices, marketing and credit availability. Farming production systems in Lebanon have witnessed a substantial transformation from what was commonly traditional agro-pastoral cereal-livestock farming to rainfed cropping due to socioeconomic pressures that escalated especially during the civil war (Hamadeh, 1999). This shift led to the adoption of sedentary systems limited by availability of pasture and feed, and desertification of marginal rangelands (Hamadeh et al., 1999). As a result, and in addition to low animal productivity, herders decreased their herd sizes and restricted their movements, and also farmers diversified their income sources and relied on other on-farm and off-farm work (Dick et al., 2008). The sector has been adapting ever since to current conditions but questions of sustainability are raised. Small ruminants herding is becoming even more sedentary due to climatic variability (increased temperatures and drought cycles), pasture policies and restrictions, decrease in rangelands (irregulated construction and agricultural expansion), and market uncertainties (market prices and costs of feed and labor) (Chedid et al., 2018). Farmers also identified lack of veterinary and financial services as obstacles (Chedid et al.,

2018). The absence of governmental regulatory support (Sattout, 2014) and cooperatives aggravates the conditions instead of regulating operations and markets to become more efficient and profitable for farmers.

Goat dairy value chains of traditional products are considered short value chains that come across many obstacles such as access to finance, access to proper technology, equipment and material, access to good milk quality, marketing and demand, inefficient distribution chains, and other. In Lebanon, the demand for local dairy products is high and increased with the large number of Syrian refugees that consume these products. According to El Balaa and Marie (2008), the Lebanese diet values goat dairy products that mainly are Double Cream cheese, Akkaoui, Keshek (mainly industrial), and Halloumi (low-fat cheese) that are mainly produced in large factories and served to urban consumers. Traditional Keshek, Ambarees and Goat Cheese, among others, are restricted to small-scale traditional home productions and consumed more often in rural areas. Cow dairy products are more accessible and available for the masses and more demanded.

The production of traditional goat dairy products has been transmitted through generations. Shouf and West Bekaa are known for their traditional productions of Serdele/Ambarees and Keshek among others. The seasonality of goat milk has resulted in resilient production techniques that ensure long-term preservation of the products in the form of 'mouneh'. Goat raising and traditional dairy productions are considered as family-run businesses that are embedded in the local food systems but seem to have hard momentum to gain popularity in other areas, and namely urban. Challenges are namely; decreasing demand, difficulty in finding markets, and food safety issues that worries consumers, and lack of business skills that are threatening this production.

Dairy processors are usually women and they process the products at home using simple tools rather than machinery. It is very common for a goat farming family to process milk as well, at least for home consumption if not for sale. Their marketing is limited to small seasonal distribution channels (Tabet et al., 2016). Sales are usually done directly by processor to consumer or through small town retailer “dekeneh”. In the Shouf and West Bekaa areas, there are no associations or cooperatives for this sector and governmental support is almost nonexistent.

As the number of small-scale goat farmers and processors is decreasing and interest in the sector is diminishing, it is important to study and explore the threats and opportunities that can aid this production that consists part of a value chain within a wider local food system.



Figure 1. Goats in Lebanon

CHAPTER III

METHODOLOGY

A. Approach and Context

1. *Approach and Rationale*

This project implements a qualitative participatory socioeconomic approach to assess the impact of microfinance. The Shouf and West Bekaa areas are chosen as study case and goat farmers and processors residing there will be the sample population.

The need for development interventions is crucial in the developing world. The gap between rich and poor, powerful and powerless, is widening. Participatory research approaches can create means for the vulnerable to make their voices heard and express their needs and challenges, to better design initiatives that would help them enhance their conditions, and in this case financial programs. Participatory approach is a bottom-up approach for learning about rural life and conditions from, with and by rural people to be able to understand, analyze, and propose solutions (Chambers, 1983). As such, the conditions and distresses of small-scale farmers and processors will be gathered and analyzed. Therefore, microfinance as a development tool will be studied in the light the of the findings to assess its effectiveness.

2. *Shouf and West Bekaa Areas*

The Shouf area is the largest district in Mount Lebanon Governorate. It resides around 200,000 persons, least among Mount Lebanon's districts (IDAL, 2017). Its area is 495km² and occupies 25% of Lebanese territory (Localiban, 2019). The Shouf Cedars Reserve is the largest cedar forest and cedar reserve in Lebanon. The region is known for its diverse mountainous typology, climate, and fertile soil which made this area an attraction for agro-food investments (olive oil and wine) and a tourism with its natural landscapes and cultural, architectural, and historical sites (IDAL, 2017). Shouf hosts diverse religious sects; majorities are Druze, Sunnis and Maronites. IDAL (2017) reported that only 68% of Shouf population lives above poverty line and that only 1% of Shouf population are illiterate as of 2005. 90% of Shouf population works in the Service sector while only 5% work in agriculture (CDR, 2005).

West Bekaa area is 424.8 km² (together 920km²). It is mainly covered with agricultural areas, then few main cities and smaller rural villages. Population is around 56,000. It contains the largest wetlands in Ammiq. Typology is of semi-arid nature and host 39% of goats in Bekaa. 70% of population in Bekaa are living above poverty line (UNHCR, 2015). In the studied villages within WB, majority of the population is Christian. Bekaa (including Zahle and Rashaya) have the 2nd highest share of guaranteed loans by Kafalat 12% (after Mount Lebanon 45%) (IDAL, 2018). Although the Bekaa valley (including Baalbeck-Hermel) has the biggest agricultural area, only 0.2% of labor force (in Bekaa Governorate only, and only considering formal work) engages in agricultural activities and 29% of goat raising is in that area, largest in Lebanon, and known for dairy factories and wineries (MoA, 2016).

Map of Lebanon by Governorates

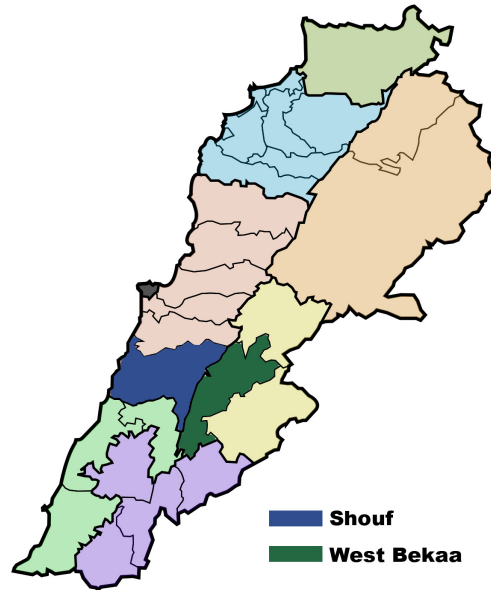


Figure 2. Shouf and West Bekaa on Lebanon Map

As the situation in many Lebanese rural regions, these 2 areas are known for urban migration where people are leaving their agricultural and artisanal occupation to work in the public and private sector. Many of the villagers only live in these areas during summer and move back to coastal areas during winter (CDR, 2005).

3. *Population of Case Study*

The population chosen, as previously mentioned, are goat farmers and goat dairy processors in West Bekaa and Shouf areas of Lebanon. The participants are residents and have their farming operations in West Bekaa and Shouf. They are small-scale producers. Their challenges and importance to rural communities have been previously highlighted.

Goat farming and goat dairy processing are often linked together since they are tightly-knitted; meaning that almost all goat farmers also process dairy products at home, being for sale or simply household consumption. Rarely is the case that a family raising goats would buy goat products. In addition, a relatively big number of dairy processors would be found in a village or area where goat herding is common. So, we can safely say that goat farming and processing coexist together and aiding one will create opportunities for the other.

Farmers are commonly the men of the households and processors are men and women (mostly women). Goat production can be considered as a family activity where the man is usually the farmer and his wife is the processor at home, as a house chore. The children that are still living with their parents (and are old enough, not small kids) also help in farming and processing but are assumed to be moving away seeing the challenges that deem this sector less profitable than other sectors and industries.

The role of women processors is vital. Women are commonly known to produce Mouneh products including goat dairy products for sale or as a household chore. Aiding this production will safeguard livelihoods of many women. In many cases, women are the guardians of traditions who are transmitting knowledge through generations, especially small-scale home productions. Many microcredit programs are especially dedicated to women.

Many of the participants have multiple livelihoods and are not full-time farmers. Since we are dealing with small-scale farmers and processors, it is assumed that the farming and production income is not enough to sustain a household, in addition to the challenges they face. In many cases, the participants have multiple livelihoods

such as employment, industrial laborers, military personnel, and farmers in other sectors. When tackling economic challenges and opportunities of this sector, this aspect will be taken into consideration.

B. Research Design

1. *Data Gathering Methods*

a. Microfinance Market Study in Lebanon

A descriptive and exploratory approach is employed to investigate the microfinance market in Lebanon and the Shouf and West Bekaa areas, and find the link between microfinance and agriculture in specific. A study is done on MFIs in Lebanon by using secondary data publicly published by the MFIs themselves and data from different reviews, studies, papers, NGO reports, and others. The aim from this exercise is to be acquainted with the role of the providers of microfinance to be able to understand the context.

The purposes, structure, operations, and programs differ among each other. The MFIs and products are examined and categorized based on their similarities in their nature, governance, size, and programs provided. These categories help in understanding the types of microfinance institutions and providers that are available in Lebanon.

The following themes are to be discussed and explored: Governance (NGO, local or international; For-profit financial institution; governmental institution; etc); Mission (to be interpreted: for rural benefit, women, youth, etc); Operations and Funds Sustainability (from where they get their funds: Grants, Investments, etc); Programs,

Rates, Services, Facilities, and Conditions; Sectors and Areas Served, Outreach, Profile of Clients, and Criteria of Selecting Clients; Loan Portfolio; Repayment and defaulting rates; Loan follow-up (staff rate per clients); Impact

Based on the above, we are able to understand the microfinance market, describe its role and reality, explore its potentials and setbacks, and deduce trends and questions to be addressed during fieldwork.

Challenges: The review from different interpreters can be at times biased where each scholar or researcher has a view on the matter, especially that the subject has a social aspect to it. In addition, theories obtained from the literature are based on a specific context and timeframe. These theories should be tailored to the study case. For the market study, the limitation is that the institution's published and admitted information are usually the best version of the reality. Information is investigated beyond the given and trends, hypotheses, and questions are formulated to transform crude data to useful information.

b. Semi-structured Questionnaires

Note: The questionnaires and data gathering methods were approved by and conducted according to IRB standards.

The sample recruitment: ESDU team assisted the researcher in finding potential participants by providing contact details of previously recruited participants in similar projects done in the past. A flyer was used for recruitment as well for asking around for willing participants. Also, the researcher provided her contact info to the interviewees who can pass it on to others who may be interested in the study. In

addition, interviewees suggested names of potentially willing participants, only after the approval was sought by the seed participant to share their info. Visits were conducted with every participant individually to fill in the questionnaire. It is important to meet with the participants individually and in their houses since the topic is peculiar and subjective to every participant and it is important to conduct the interview in an environment that the participants are familiar with and feel most comfortable in. The researcher made sure that no other parties were around during the interview so that privacy is maintained throughout and to assure that no perception of undue influence or coercion is practiced with subjects. The participants chose the location and time of the interview that suits them best. The sample is 30 participants distributed almost equally between the 2 areas. The sample is random. The sample included farmers with different sizes of herds and processors with different production size (while still remaining small-scale) to be representative. Farmers and processors were selected from different villages.

Participants who have previously taken a microloan were identified from the 1st questionnaire. As such, the identified borrowers were asked to participate in an additional interview regarding their experience with the loan.

The questionnaires are translated to Arabic.

The aim of the first phase is to get an overview of the actuality of the goat sector in the areas, the perception of participants on microfinance through qualitative means, and the statistics of microfinance rate of usage among goat farmers and dairy processors, among other information regarding the operations and market of their business. Themes of the questionnaire were obtained from questions and hypothesis

deducted and based on the information of the market study. The questionnaire are divided into the following themes:

1. Personal Information: name, age, gender, number of family members, level of education, etc
2. Social Information: Occupation (if other than farming), if member of coop,
3. Goat Sector: size of herd/production, operations, assets, prices (Selling and costs), and challenges regarding this sector (limitations and opportunities; open-ended), if they wish to expand and invest, etc
4. Economic Info: Income, Costs, Payments
5. Microfinance: if they heard of microfinance, if they have taken microfinance or other loans in the past, if they think of taking in the future (why or why not), their opinion on loans, etc

Challenges: Small-scale farming and processing activities are usually hard to budget and farmers and processors rarely do they keep record of expenditures and income. For that, it is anticipated that some participants will either not know specific figures which will result in over or underestimating amounts. Another challenge is to find participants that are well comfortable in discussing their finances. Lebanese head of families (female or male) living in rural areas are usually proud people and are well known members of their small communities especially that in villages everyone knows everyone, so it may be uncomfortable for them to discuss bluntly their potential need for financial assistance.

c. Interview with Identified Borrowers

After gathering and entering the data from the questionnaire, goat farmers and processors who have taken a microfinance loan in the past (or currently) can be identified. A semi-structured interview is done with each of the identified participants to discuss their experience with their microloan. The following themes are carefully interrogated and examined: Purpose of the Loan; Trail of logical thought that led to choosing to take a loan; Choice of particular institution; Features of loan: Type, Rate, Facilities offered by institution, Repayment conditions, etc; Expectations: Planned utilization of Loan vs Actual utilization; Initial state before taking the loan vs after; Repayment strategy; Outcome of Loan: Purpose achievement, benefits (income generation or other), drawbacks; and Sustainability after loan.

Interviews: The participants were contacted separately. An individual interview was held within the comfort of their home or similar. As previously mentioned the topic is sensitive and requires the participants to be fully comfortable and trusting to discuss their finances and financial needs and struggles. The participants were already acquainted with the researcher from the previous phase (questionnaire) thus ‘the ice will be already broken’. Successful and unsuccessful cases are studied and analyzed. The case studies are thoroughly evaluated to highlight the advantages and disadvantages (from the supply side), good and bad investments and decisions (from the demand side).

Challenges: Keeping records of cash inflow and outflow is a challenge among farmers, in addition to over and underestimations due to absence of records or not feeling comfortable in admitting the real amounts. Another anticipated challenge is willingness of candidates to participate in a thorough personal financial examination.

2. *Data Analysis Procedure*

Descriptive and exploratory analysis is employed to understand and describe trends and unknown relationships between microfinance providers and seekers, and between the players themselves. Quantitative analysis approach is utilized as well while applying empirical, economic, and statistical tools and methods. Qualitative methods are implemented to the study case. Inferential analysis is involved to assume conclusions and recommendations based on the study case to be implemented on larger population of subjects with similar profiles.

3. *Trustworthiness and Ethical Consideration*

In Lebanon, the topic of personal finances and economic standing is sensitive. The interview is conducted in a comfortable environment for the participant. It is very important to make sure that participants know and understand the aim of the research, the research methods that are used, and the importance of their contribution. Participants should also be aware that the information is used solely for the purpose of the research and that their privacy is respected. Participants are made aware that this project will be for their benefit. Mutual trust and respect was built to make the data collection process effective and efficient. Participants' consent will be taken before conducting the interviews following IRB's approved procedure.

CHAPTER IV

RESULTS AND DISCUSSION

A. Microfinance Market Study in Lebanon

In 1999, there were only 5 MFIs operating in Lebanon. As of 2014, there are roughly 23 MFIs.

Information in this section is gathered from SANABEL 2009 report, MIX Market, LMFA website, and MFIs' websites. A sample of MFIs operating in Lebanon are chosen for the study, listed below.

MFI	Legal Form	# of Active Clients		Outstanding Loan Portfolio (USD)		Service Areas (Outreach)	Rural Borrowers (%)
		2016	2017	2016	2017		
Al Majmoua	NGO	64,432	72,802	59,263,165	72,070,489	All	43% (2014)
VITAS (formerly Ameen)	NBFI	21,000	22,500	31,000,000	38,000,000		
ADR	NGO	2,383	2,631	3,946,684	4,038,789	South, Nabatieh, Mount Leb, North	44% (2003)
AEP	NGO	1,113	1,200	3,765,969	3,844,000	All	
Emkan sal	NBFI	15,000	18,640	37,000,000	45,366,750		
Ibdaa sal	NBFI	13,000	15,000	10,200,000	13,000,000		
Al Qard Al Hassan	NGO	123,000 (2014)		276,000,000 (2014)		South, Beirut, Bekaa	
CLD	Cooperative	480	567	8,399,334	7,383,410	Dominantly in North	
UNRWA	UN Agency	38,595 (regionally)		37,708,136 (regionally)		Palestinians	
PAWL	NGO	600 (2014)		5,000,000 (2014)		Palestinians	
KAFALAT sal (not MFI)		580 (2018)		for loans < 50M LL & < \$50,000		All	

Table 1. List of MFIs in Lebanon

1. Types of MFIs in Lebanon

Types: (1) NGOs; (2) Financial institutions registered under Lebanese anonymous companies (s.a.l.) also known as Non-Banking Financial Institution (NBFI), joint stock companies; (3) Cooperatives; and (4) Banks.

2. *Mission and Programs*

a. Business Loans

SME Loans, Micro-entrepreneur Loans, and ICT Loans: offered to existing or startup SMEs or to microbusinesses to finance fixed assets or working capital. ICT loans are especially for tech businesses and startups.

Group Loans: offered to women groups. Group solidarity is the collateral.

Youth Loans: especially dedicated for youth (18-30 yo)

b. Social Loans

Worker Loans: offered to employees not registered in NSSF and with low salaries that cannot take a loan from the bank.

Personal Loans: Schooling, Home Improvement, etc

Special Needs Loans: to people with special needs or their families for their benefit

Many MFIs also have categorized loans per sector: small agriculture, cottage industry, crafts, technology, manufacturing, economic development, and community development.

c. Vocational and Capacity Training:

Several MFIs, such as AlMajmoua, IbdAA, Vitas, ADR, and others, provide vocational and capacity training programs and services.

Al Qard Al Hassan has a special provision for giving out a loan in return of gold guarantee, joint guarantee loan, shareholder loans, in-kind loans, and village loans (boxes in villages).

Some MFIs also have partnerships with universities to provide courses especially in entrepreneurship, for example IbdAA s.a.l..

3. Profile of Clients, Outreach, and Criteria for Eligibility

Many MFIs, especially NGOs, serve non-Lebanese clients such as Palestinians and Syrian refugees for projects and consumption within Lebanese territory. Most of the MFIs are especially concerned with women and youth.

Common Criteria for Borrowers:

- Should be aged between 18 and 62 or 67 years (depends on MFI and program) and present a need for the loan.
- Loan amount depends on size of project, borrower's ability to repay loan, and ability to present sufficient guarantees (eg. ADR requires a co-signatory guarantor as a form of collateral)
- MFIs require candidates to have existing micro or small businesses for more than 1 year or are employees for more than a year for business loans (except startups).

Most sector served is commercial and services. The other sectors served are agriculture, crafts, and industry. Many NGOs operate and have offices all over Lebanon. The largest is Al Majmoua with 22 branches. Most of MFI branches are situated in major cities such as Beirut, Tripoli, Sidon, Tyr, and Nabatieh.

A study done to depict characteristics of microfinance beneficiaries shows that NGO MFIs offer loans to men more than women, and less loans are granted to startups (Wahidi, 2017).

4. *Rates, Services, Facilities, and Conditions*

Loans vary between 200-20,000USD depending on size of MFI. Interest rate varies between 10-12% paid monthly. CLD offered a 7.5% interest rate and offers partial tax exemption. Repayment period varies between 6-36 months based on MFI regulation and based on feasibility study of a specific project or business. Agriculture loans are usually given extended repayment periods.

Usually feasibility studies are carried out by MFIs before loan approval. MFIs may require their clients to attend training or information sessions depending on the type of product offered. In parallel, a period of observation of the customer, varying between 3 and 9 months, will take place before accessing credit.

5. *Repayment and Impact*

Many MFIs like Al Majmoua and ADR have partnered with WesternUnion, LibanPost, or OMT to allow borrower to make payments. Other MFIs partner with commercial banks such as ADR with Bank Audi, Vitas with Fransabank, AED with BankAudi, FNB, BankMed, and others to facilitate transfers of loans and collection.

Impact studies done by MFIs themselves or by partnering donors show positive results of MFIs mission success. ADR reports that 75% of its beneficiaries reported increase in monthly income after employing a microloan.

As for the debt, a report showed that 71% of borrowers have one active loan while the others have two or more, and almost one-third of the sample uses more than 50% of net income to service debt; 15% use between 51-75%, 5% use between 75-100%, and 10% use over 100% (CGAP, 2017).

It is worth noting that most Impact studies are done around Microfinance are implemented and monitored by MFIs themselves, Development agencies, or microfinance networks. We assume that the best version of reality is reported. Less work is done independently by scholars and researchers.

6. *Operation and Fund Sustainability*

Most of NGO MFIs are offered grants from private and public institutions such as EU, ESCWA, UNDP, DRC, and USAID.

EMKAN for example is founded by Bankmed (and Hariri Foundation) and the bank aids in operations. Al Majmoua partners as well with international institutions that offer online lending and networks for borrowing.

Several commercial banks, such as BLC and BLOM, have opened microcredit departments and programs to reach out to the more vulnerable population.

7. *KAFALAT sal*

KAFALAT is a financial company that provides loan guarantees to SMEs that are planning to get a loan from a commercial bank and benefit from interest rate subsidy. It is not an MFI, in which it does not offer loans but is mentioned in this study since it aids the poor to access a loan.

B. Demographic Information of Participants

30 participants were interviewed for this project who are either small-scale goat farmer, goat dairy processor, or both; 15 from Shouf area and 15 from West Bekaa area. Participants were picked randomly from the following villages: Shouf: Kfarhim, Bater, Ain Zhalta, Niha, Mresti El Shouf, Kfarnabrakh, and Barouk; West Bekaa: Saghbine, Kherbet Kanafar, Aana, and Ammiq. 19 of the participants are farmers; 19 are dairy processors while 8 are both.

	Farmer	Processor	Both	Total
Female	1	6	2	9
Male	10	5	5	20
Religious Inst.	-	-	1	1
Total	11	11	8	30

Figure 2. Gender Distribution

	>=30	31 -> 40	41 -> 50	51 -> 60	61=<	N/A
By Gender						
Female	1	-	1	4	3	-
Male	1	3	4	8	4	-
Religious Inst.	-	-	-	-	-	1
By Profession						
Processor	-	-	1	8	2	-
Farmer	1	2	2	3	3	-
Both	1	1	2	1	2	1
Total	2	3	5	12	7	1

Figure 3. Age Distribution

	Reads & Writes (no schooling)	Elementary School	Middle School	High school	University Undergrad	N/A
By Gender						
Female	-	-	5	2	2	-
Male	1	1	8	5	5	-
Religious Inst.	-	-	-	-	-	1
By Profession						
Processor	-	-	7	2	2	-
Farmer	-	-	4	4	3	-
Both	1	1	2	1	2	1
By Age						
>=30	-	-	-	-	2	-
31 -> 40	-	-	-	1	2	-
41 -> 50	-	-	3	1	1	-
51 -> 60	-	1	5	4	2	-
61=<	1	-	5	1	-	-
N/A	-	-	-	-	-	1
Total	1	1	13	7	7	1

Figure 4. Education Level Distribution

4 of the participants were single, 24 were married, 1 was widowed, and 1 unspecified (religious inst.). When asked about the number of family members (that the participants provides for financially), 40% had 5 or more dependent family members, 33% had 3 or 4, and 26% had between zero and 2 dependents.

C. Goat Sector in Shouf and West Bekaa

1. Livelihoods in the Goat Sector

As per Chambers and Conway (1992), livelihoods include the people, their capabilities, assets, and means of living. In this context, participants were asked about contribution of goat farming and processing to their livelihood.

Two-thirds of the participants reported that goat farming/processing is not their sole source of income. The average age of full-time goat famers and processors is 58, and most have had only intermediate level education. It can be implied that full-time

farmers are the older generation with lower levels of education. Part-timers in this group are either employees or military personnel (army), small-business owners (Mouneh shops, small markets, or small restaurant), farmers (raise cows and other animals, or own orchards), processors of other Mouneh products, or retirees (mainly from the army or from governmental positions).

% income Contribution	<= 20%	21% -> 40%	41% -> 60%	100%
Processors	4	1	2	4
Farmer	3	1	2	5
Both	3	1	2	2
Total	10	3	6	11

Table 5. % Income Contribution Generated from Goat Farming and Processing Activities

Participants who reported percentage income contribution less than 20% are mostly farmers who have less than 10 goats and consider it as subsistence farming and same for processors who produce small amounts of products from which they sell a few to neighbors, family and friends while they use the majority for personal consumption.

In addition, all goat farmers produce goat dairy products from the milk they collect. 37% of farmers sell their products while the rest is considered for personal consumption. Products usually produced and consumed are: Labneh, Cheese, Laban, Keshek, and Ambarees. The traditional Lebanese diet includes and depends on dairy products where they can be consumed for breakfast, lunch, and dinner by the whole household. As such, a big portion of the farmers' and processors' household nutrition intake is obtained and secured directly through their livelihood.

The percentage of farmers who modified their livelihood strategies to incorporate other farm and off-farm activities in order to diversify income generating activities have increased over time due to several constraints facing this sector (Dick et al., 2008).

2. *Goat Farming Data*

a. Farm Location, Ownership, and Help

Farm location. Most of the farmers (18 out of 19) kept their herds in pens and farms located near their villages. Each village has a designated or known area where herds of goats, sheep or other animals are kept. These areas are usually next to the village where the lands are not accessible (except for dirt roads), vacant, and away from the village and the villagers. According to Decree No 9 dated 2-12-2004 issued by the Ministry of Environment (MoE, 2004), farms should be kept at a minimum specified distance away from residential areas for hygienic and organizational purposes. Mostly, these farms are located in lands on top of the village due to the inclined topography of Lebanese villages situated in the mountains. One farmer reported to keep his herd next to his house, but his house was at the edge of the village with an open space next to it and the herd size was the smallest among the group (10 goats).

Farm Ownership. 13 farmers own their farms while 6 pay rent; 4 from WB and 2 from Shouf. In the West Bekaa, most of the agricultural areas are owned by the few wealthiest families in the Bekaa. The Skaff family owns the majority of those areas surrounding the villages included in this study. 3 of the renter farmers pay rent to the Skaff family on the basis of 42,000LBP yearly per head and they can utilize the designated lands for grazing and the pens for keeping their herd. Another farmer pays rent to the convent where he keeps his goats and grazes them in the Waqf lands. The other 2 renters from Shouf rent from 2 different landowners.

Help in Farm work. Majority of participants employ workers to help with the goats; maintaining the farm, herding, taking care of goats, milking, etc. Most of the workers are Syrian. Others relied on family members to help.

Help in Farm	Worker(s)	Sibling(s)	Parent(s)	Kid(s)	No Help	Spouse
Frequency (19)	14	2	2	2	1	-

Table 6. Distribution of Helpers in Farming (can have more than one option)

The average age of farmers without any workers is 60. It is evident that younger farmers have help in farm work, mostly due to not being full-time farmers.

b. Herd Size, Farming System, Milk, and Customers

Herd Size. The average herd size in the Shouf is 200 goats. There is one outlier with 1800 goats that is not included in the average. The project tackles small-scale farmer, but this farmer in specific was taken into consideration for the following reasons: (1) She's a female farmer that got into this venture recently and alone, (2) she used an agriculture loan to invest in buying the goats and paying for the incurred expenses, so her feedback on her experience can benefit the purpose, and (3) still uses traditional farming techniques rather than industrial just like the other small farmers. On the other hand, the average herd size in the West Bekaa is 260 goats. When asked whether their herd size increased, decreased, or remained the same over the past 5 years, answers were common in both areas and over 60% of farmers reported that their herd decreased due to selling their goats either because (1) they are getting old and no longer able to work in such a tiring job and aiming at selling the whole herd soon, (2) thinking of changing livelihood choice, or (2) expenses are very high compared to profit in a popular answer "بطلت توفي معنا" meaning "it's not profitable anymore".

Farming System. What was traditionally agropastoral systems shifted to become more sedentary (Hamadeh et al., 1999). The evident farming system is settled system where farmers keep their herds in fixed farms and graze them in designated areas. Majority of farmers rely on both, grazing and feed, the latter especially in winter season. Some farmers in both areas, but more evident in Shouf area, move the goats during winter to a warmer location. This location is sometimes the bottom of the villages if it lies in the valley where no snow (or very shallow snow) reaches. During summer, they would move them back to the top of the village.

In the West Bekaa some farmers have deals with landowners (largely Skaff family) to have the goats feed on specific crops and leftovers in planted zones. Some others pay rent to graze on the open fields (non-agricultural, also Skaff property), others in the Waqf land, and others in open rangeland Mshaas owned or managed by municipality for no rent.

In the Shouf, it is more common for farmers to graze their herds in free Mshaa grazelands, and others in rented lands. One participant reported that he pays rent by providing manure and milk instead of money.

Milk. Milk collected per goat is on average between 0.5 and 1 kg/day. If any milk could not be sold, it would be brought home for processing. The average selling price of milk in WB is 900LBP/kg while in Shouf 1400LBP/kg. The sector is unregulated thus sale prices of milk can be set freely (explained in Section 6).

Customers: Milk customers of farmers are distributed as follows per area.

	Hallab	Small dairy Unit	Dairy factory	Direct Consumer
WB (10)	5	3	2	4
Shouf (9)	-	1	-	9

Table 7. Distribution of Milk Customers (more than one option can be chosen)

A Hallab is a milk collector. The Shouf farmer delivers milk to a dairy unit in another district. This information will be discussed elaborately in Section 6 of this Chapter.

3. *Goat Dairy Product Processing Data*

a. Processing Location and Help

Processing Location. Most of the processors (18 out of 19) process dairy products in their homes. The processing takes place in the common room, kitchen, or a designated room within the house or besides on the same property (basement, shed, etc). The processors have organized over time these areas to accommodate the instruments and processes, especially for Ambarees making, for example by inserting drainage tubes and other utilities that will make their processes easier based on their preference. One processor has a small dairy unit next to the house where the larger percentage of production is cow dairy products and less goat products.



Figure 3. Inhouse ambarees storage rooms (left) in Saghbine, West Bekaa; (right) in Niha, Shouf.

Help in Processing Work. Unlike farm work, the participants have more help from family members rather than workers. Since processing mostly happen at home, it is less likely to have external help.

Help in Processing	Spouse	No Help	Worker(s)	Parent(s)	Kid(s)	Sibling(s)
Frequency	10	6	2	2	1	-

Table 8. Distribution of Helpers in Processing (more than one option can be chosen)

The two participants who reported to employ workers are the small dairy unit (Syrian workers), and a religious institution (local Lebanese workers).

Products. There are 5 main products processed from goat milk.

Area	Freq.	Avg. Qt per year (kg)	Avg. Price (LBP/kg)
Cheese			
WB	3	1,970	11,500
Shouf	1	170	16,000
Laban			
WB	2	730	2500
Shouf	0	-	-
Ambarees			
WB	7	502	29,500
Shouf	10	1,311	17,000

Area	Freq.	Avg. Qt per year (kg)	Avg. Price (LBP/kg)
Labneh			
WB	7	246	15,500
Shouf	0	-	-
Keshek			
WB	6	188	29,000
Shouf	6	185	27,500

Table 9. Average Quantity and Price for each product in West Bekaa and Shouf areas

Since these products are produced by small-scale processors, they all follow traditional techniques. No machinery is used, handmade, and only home tools and specific traditional equipment such as clay jars for Ambarees.

Processors get their milk either from their own goats (63%) or buy it from a local farmer (37%). In WB, processor provided that they buy the milk for a common price of 1,600LBP/kg, while in the Shouf, processors buy their milk for an average price of 1,475LBP/kg. As shown in the table above, selling prices differ between WB and Shouf for the same product. It is most evident in Ambarees where in WB the kg is sold for 174% more than in the Shouf.

As per the participants, quantities for production are either based on demand (63%), fixed yearly quantities (26%), or based on availability of milk (11%; farmers).

Customers. Majority of customers are direct consumers such as the local villagers, neighbors, friends and family, and loyal urban customers that visit the village. All the processors keep their products for household consumption.

Few sell their products to the local retailers (Dekaneh). Keshek, cheese, and Labneh can be found in a few Dekanehs, while it is rare to find Ambarees. Ambarees is typically bought from the processor. Since Ambarees (and other products) is delicately made, customers base their trusted choice trust of the processor. In addition, homemade goat products are more expensive than other substitutes, therefore Dekaneh owners hesitate to trade those products because their profit margin and demand is low.

4. *Generations, Family, and Household Structure*

a. Interest of the Younger Generation

Among the farmers and processors who have kids, 69% and 59%, respectively and 70% in total, reported that none of their kids is interested in this sector and carrying on the work. They added that they would not encourage their kids due to the poor performance and challenges of this sector, but rather encourage them to get an education and find a living in different modern direction.

One farmer conveyed that he encouraged his son to study veterinary medicines, but he will not keep the herd. A few farmers and processors mentioned that they would encourage their kids to have a few goats or process dairy products for their household consumption, but both activities for the purpose of leisure and “to stay close to nature and tradition” and not as a career or livelihood.

b. Family and Gender Roles in the Goat Sector

Family Roles. 83% of participants perceive goat farming as a family business; they believe when a person keeps small ruminants, a role is created for every family member in the process, unlike other careers wherein a person goes to his/her workplace to returns home without involving the other household members. As mentioned previously, all farmers also process dairy products. This model is commonly described as the farmer being the male (usually husband), the female (usually wife) the processor, and the kids as helpers. This model was common among the interviewers and their household roles.

97% agree that in this sector, roles of females and males are distinct and have been passed done through tradition. Even though the statistics of helpers (Sections C.2.a and C.3.a) does not reflect this phenomenon, this is due to the fact that participants only reported dedicated or paid helpers/workers and undermined or mistakenly not report helpers within the household where their help/job is considered more as a household duty and activity rather than reported “work”. Furthermore, in the statistics, participants only reported who helped them in their category; meaning that farmers were asked who helped them in farming and not processing. In addition, since processing commonly happens at home, it indirectly encourages the family members to lend a hand in the process. For example, Ambarees production required strength to lift the heavy milk and heavy jar so the males in the family would regularly help. Also, while at home the mother would ask the help of her kids and mainly daughters for the handwork, that also serves the purpose of teaching them the process for when they have a family of their own. Kids are not noticeably reported as helpers since as we have established previously, the percentage of interest is not high, so they would only help if and when

they are available and at home, but would not dedicate their time for this profession as they would rather seek another career. Spouses are more prominent helpers since they inherently live “at home”.

Gender Roles. Farmers are dominantly male and processors female. Although according to demographics (Section B), 10 processors are male, 8 of them their wives did the processing. The interviews were done with the husbands (and sometimes in the presence of their wives) and they spoke on the behalf of the household. The only female farmer has male workers who work with the herd.

Farming is for males since it requires more endurance and longer hours (proof: 0 reported wife helps in farming; Table 3), and processing is for females done at home. An observation was notably recognized that while small-scale processors are dominantly female, larger processors who own factories are male.

In many cases, processing is considered as a house shore for women as part of preparing food for the family. Nevertheless, 90% of participants agree that the female role is primary in this sector. Women play an important and primary role in the goat production value chain and not to be mistaken as “can be substituted with a male or worker”. Women are one of the main actors in preserving and transmitting culinary tradition to younger generations. Even if some of the women produce only for household consumption and marginal sale, they still are part of the value chain by providing for their family, contributing to food security of their household and aggregately to the area.

Although food processing can be considered as a livelihood to women, 80% of participants revealed that women do not get their own salary from the profits. The

income is added to the household income and in many cases given to the husband to save. Of course, the women can use the money when needed, but they do not consider it as personal profit to spend it as desired. It is common among Lebanese families to have a shared account to pool the income and is usually managed by the husband.

c. Heritage and History of the Goat Sector

The goat sector in Lebanon is an ancestral heritage transmitted down through generations where it forms an integral part of the Lebanese rural mosaic (Serhan and Mattar, 2017). 84% of the farmers have inherited their herds and herding techniques from their family and 52% among the processors. New-comers explained the reason for entering this sector is either financial need, interest in animals, nature, and tradition, or concerns in food safety where they would rather consume their own products.

Several participants recalled, either from their own childhood or from their parents' stories, that in their villages almost every family used to raise small ruminants. As narrated, it was very common for Lebanese households, and especially in mountainous areas, to have goats and sheep kept next to their house or in their basements “al-abou الأبو”, and even a cow or two. This practice remained popular till around the 50s. Back then, people depended heavily on subsistence livestock farming where villagers consumed from their own production; milk, meat, and dairy products. With developments in technology and change in lifestyle and mindset, people drifted away from raising livestock and the number of herders and herds decreased and is decreasing still.

A farmer from the Shouf recalled that more than 60 years ago there used to be a “Aajjel عجال”. The latter is a herder that would go around herding goats/sheep while passing through the village daily, and when farmers hear the Aajjel coming by the sound of goat bell, they would open up for their own herd to go with the grazing flock. So, the Aajjel would be a designated herder that would graze all the neighboring herds; noting that herds were of small numbers. This job is nonexistent nowadays.

Feed was never bought. During the warm weather, farmers used to plant corn, wheat, and barley to feed their animals; agropastoral system. They would take the seeds to consume it and give the hay to the herd. In winter, they used to prune oak and other native trees to feed the goats when the land would be covered in snow. In addition, farmers, especially in the WB, would also rely on moving the herd around during the year to find grazing land; shift from semi-nomadic to more settled and semi-sedentary systems (Dick et al., 2008).

There was no veterinaries. Farmers used to medicate the goats themselves using natural ingredients such as herbs. The system was more organic and natural contrary to the present where it's heavily reliant on chemicals, feed, and vaccines. Some farmers believe that goats were healthier before. They blame the vaccines and feed. That theory cannot be blindly adopted or approved since many internal and external factors should be taken into consideration. Some farmers on the other hand are actually grateful for the technology that made readily available vaccines and feed. They claim advancements made the discovery of diseases easier and curable, since goats could have been sick but go unnoticed.

In the past, lands were more open and a big portion was considered “mshaa مَشَاع”, lands that belong to the municipality. Herders were allowed to access mshaas freely. Nowadays many lands are appropriated and not accessible. In addition, increase in population and construction decreased availability of grazing land.

One farmer described that time changed social relations among farmers as well. Previously, farmers used to support each other unconditionally. They would all help each other if a herder have some troubles or if circumstance deceives the farming community such as climate, disease, etc. Nowadays, as he conveys, due to the competitive and profit-oriented mindset that society leans towards, envy among farmers exists. Farmers want to make more profit than their neighbors, or neighbors report the farmer if they see him doing well.

5. Expenses, Payments, and Money

Farming Expenses. The main expenses are feed, vaccines, workers, rent, and vehicle expenses. Numbers cannot be accurate since many farmers overestimate, underestimate, hesitate to answer, or simply do not know. The amounts also differ based on quantities, deals, time purchased, and supplier. The average price for a ton of feed is 560,000LBP as of October 2019. The average cost of vaccines is 7,500LBP/goat/year, and average cost of feed 45,000LBP/goat/year (lowest 17,000 highest 75,000; depending on feeding duration). The rent in WB is 42,000LBP per goat for the farm and grazing land from the landowner. In Shouf, farmers reported that rent could also be paid by supplying milk or manure; every 100 goats make 1 bag of manure per day which is sold for 5,000LBP. Others indicated that a few Municipalities in Shouf, such as Niha,

conduct auctions on Mshaa and grant it to the highest bidder. Syrian workers on average are paid 700,000LBP per month.

Processing Expenses. The main expense that the processors reported is the milk. In WB, the milk is bought for a common price of 1,600LBP/kg, while in the Shouf, processors buy their milk for an average price of 1,475LBP/kg. Other expenses such as tools, energy, packaging, etc are not tracked and sometimes considered as part of household expenses rather than processing.

Payments. 93% of the farmers and processors pay their suppliers on spot, the rest pay monthly. If it happens that the participants were not able to pay on spot (happens occasionally to often), farmers expressed that it's acceptable to pay later after they make their sale. Due to trust relationships over the years with their supplier, especially feed, they get the advantage to postpone the payment. Trust is a common virtue in Lebanese culture, especially in the rural setting. If the sum was large, the supplier would work a plan for payments in installments (without interest). A few other farmers conveyed that they would pay the sum in the form of milk if supplier accepted.

Outflows. Most of the revenue, after paying working costs, is spent on household expenses including food, education, bills, etc.

6. Value Chain of the Goat Sector in Shouf and WB

The value chain in the Shouf is shorter than the West Bekaa. A typical Shouf value chain comprise a farmer, processor, and consumer. Occasionally a retailer is needed since the villages are small and processors have direct contact with the consumers. There are no milk collector and no large dairy factories. On the other hand,

the value chain in WB is longer were many farmers sell milk to Hallabs that distribute the milk to big dairy factories, as depicted in Section 2.b of this chapter. The Hallabs are farmers from the villages. There exists only a few Hallabs, reported 3, in the researched villages. The Bekaa area is more known for agriculture and agroindustry where several large industrial dairy factories operate.

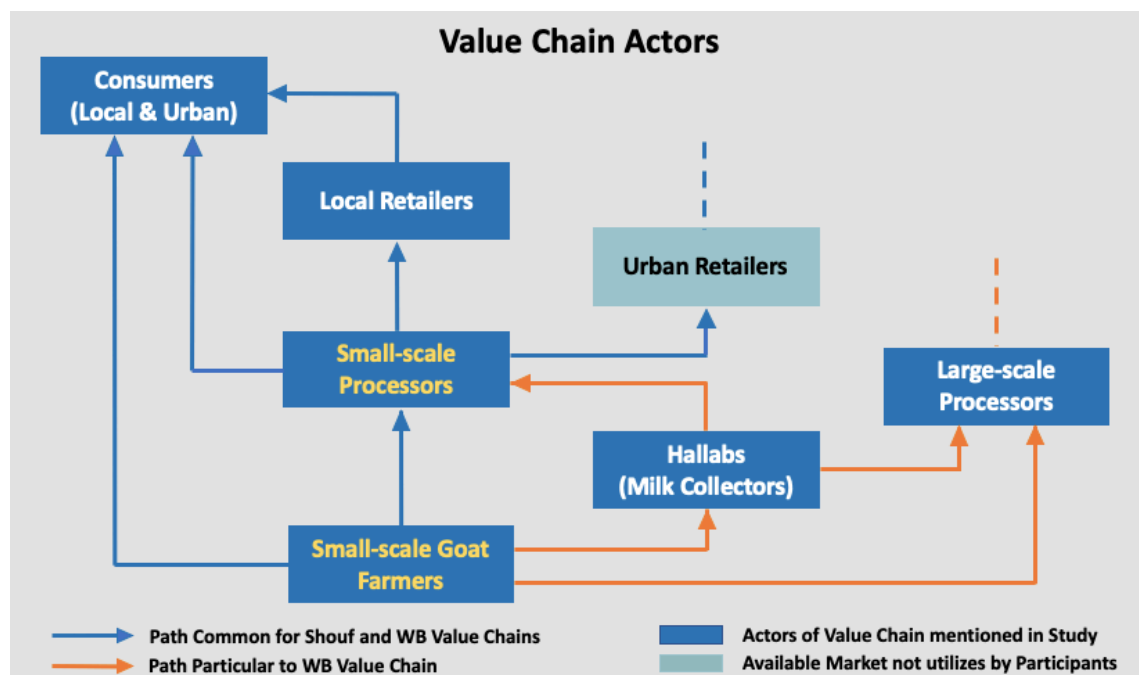


Figure 4. Goat Sector Value Chain Diagram in Shouf and WB

The value chain differs between Shouf and West Bekaa. In both cases it is relatively short when compared to more industrial and complex value chains. Nevertheless, this does not present a setback since the aim of the research to study small-scale farmers and processors of traditional dairy products and local food systems.

Distribution of value, democracy, and power relationships. The value chain is considered as a business transaction of value where each actor wishes to make profit by buying the product (finished or in progress) as cheaply as possible and sell the product as expensively as possible to increase return. This aspect automatically structures the value

chain in a vertical manner with the farmer at the bottom (Kaplinsky and Morris, 2000) with a downward pricing system (McMichael, 2013). Small-scale farmers are treated as interchangeable and exploitable input suppliers withholding the risks. The value chain is competitive business and farmers being interchangeable members do not allow them to have bargaining power. A new perspective on value chains denotes the ‘modern’ value chain that addresses questions related to sustainability and democratic legitimacy, which implies developing an effective system for sharing governance; social equity (Feenstra, 1997). This approach calls for a ‘horizontal’ chain where all actors share legislative, executive and judicial control. Legislative being setting the standards and regulations of the chain, executive being coordinating the transactions, and judicial handling conformity (Tallontire et al., 2011). In that sense, all the actors are aware of the relations, thus having transparency, authority, and justice. The application of this approach is questionable, but manageable, since it is set for larger value chains. It is noted in the study that many processors are farmers or retailers (the majority) as well which gives them more bargaining power within the value chain. In a shorter value chain such as Shouf, the value or revenue is distributed approximately equally among the actors. That is due to the fact that all the actors have the same power over pricing, reaching markets and customers, and accessing resources. Naturally, slightly larger actors than others, have a thin advantage to bargain but almost equal. While in the case WB, it is unmistakable clear and well conveyed that the large-scale industrial processor have an immense power over the farmers through pricing and providing sales market for the milk. Input suppliers, not mentioned in the figure, such as land, feed, and medical suppliers, also have a superior position over the small-scale farmers and processors. Lack of bargaining power leaves small actors in vulnerable positions to be taken advantage of and can affect overall performance.

Difference in Price of Milk sold to Processors. The sector is irregulated thus milk and products can be priced freely. It is assumed that the presence of large factories in the WB with a buying price of 600LBP/kg, and the Hallab (milk collector) collects the milk daily from the farmers, although considered as an exploitative price by farmers, factories offer stable and consistent demand to farmers. WB farmers tend to increase the price to 900LBP/kg when selling to small direct consumers to make profit. In the Shouf, there are no factories to buy the milk so farmers sell their milk to direct consumers. As a consequence, farmers incur distribution costs and burden of finding enough customers to suffice the supply, leading to pricing milk at 1400LBP/kg to balance the risk of having small buyers instead of one large stable buyer.

7. Challenges facing the Goat Sector in Lebanon

Economic, environmental, regulatory, operational, social and hygienic challenges are threatening this sector, exerting pressure on existing farmers and processors, and decreasing the interest of potential newcomers. Based on the input of the participants in the interviews and observation, the following is the gathered perceived challenges.

a. Low Demand

For a while now, farmers and processors have noticed the decrease in consumption of goat milk and goat dairy products. It was until recently that the demand increased, but not enough, as a result of people being more conscientious about consuming organic, natural, handmade, traditional products. 63% of participants reported that there is not enough demand for their products. Demand is low due to

several reason being: price, quality, availability, and preference. Many of the drivers are interlocked and affected by each other.

Price of Products. The price of goat products is expensive compared to other similar products. For example, one kilogram of cow labneh is sold for an average of 8,000LBP while goat labneh is priced at an average of 15,500LBP. The price of a product in economic terms should reflect the costs and the profit. From one end, the cost of inputs is high (explained next, part d.), and on the other end, raising goats using traditional techniques rather than industrial requires more energy and can incur higher costs on the long run. In addition, processing goat dairy products the traditional way requires as physical effort. The artifactual and cultural qualities of the product also increase its market price.

It is notable that price of Ambarees in the WB is 174% more expensive than in the Shouf, although the price of milk is less. The valid reason cannot be established other than there exists more supply of Ambarees in the Shouf than WB.

Quality and Food Safety. Due to awareness and fear of diseases such as Brucellosis, consumers today are hesitant to buy goat products and would rather consume other safe options. These goat products are homemade with traditional techniques passed on through generations do not have minimum hygiene and sanitary assurance for food safety. In terms of milk collection, the process is hazardous as well due to lack of personnel and farm sanitation and lack of temperature control (Serhan and Mattar, 2017).

In Ambarees making, the milk mixture is preserved in clay jars. Nevertheless, due to inconveniency of finding the traditionally made clay jars, processors are resorting

to using plastic containers due to their availability and affordability. Plastic containers exhibits a toxic hazard to the mixture. Only one processor among the group uses plastic.

In addition, there are no official/governmental certifications for small-scale processors and farmers to obtain to increase trust of customers. Private certifications can be obtained but are reported to be expensive, require a lot of improvements which might change their processes (probably with no benefits), or are usually not transparent where anyone can buy a certification with no guarantee of credibility.

Only one processor in the West Bekaa area was visited once by governmental personnel for inspection for safety measurements. She conveyed that the inspectors commented on “ceiling lamp not being covered by a shade” and “refrigerator temperature mark not being in the front, as it was in the back”, that she considers *minor remarks*. As she continues to explain, she didn’t have a problem with undergoing an inspection and was content to see the government do its job and hoped for some support, but was disappointed with the underappreciation and inconsideration of the fact that she processes the products using traditional tools and techniques in her “old” house. The personnel have not returned for a follow-up inspection since.

Competition. Goat milk and goat products are among a competitive pool of selections. In terms of pricing, cow dairy products can be easily available and accessible for consumers for a lower price. The cattle industry is improved and industrialized wherein lower prices for substitute products are offered. In terms of preference, cow dairy products are more popular among the Lebanese population. Goat products have a more distinct and striking taste. In addition, since the products at hand are traditional and artisanal, they are less usual to find in common markets. Usually they are bought

directly from the source or in designated farmers' markets. These traditional products also compete with industrialized goat products produced by large factories. The products produced by the latter are more common to find on shelves of markets and are cheaper than the handmade products, but still more expensive than cows'.

On another hand, several participants reported that since the beginning of the Syrian crisis, the smuggling of goats, goat milk, and goat meat from Syria to Lebanon has increased and for lower prices. Butchers and dairy factories are buying the cheaper Syrian goods rather than the locally produced. Farmers are being forced to lower their prices, although incurred costs are increasing, to match the demand.

As voiced by another participant, meat, powdered milk (used by factories as a partial substitute for fresh milk), and dairy products are being imported from abroad and sold for lower prices thus playing a competitive role.

Furthermore, there exists "internal" competition amongst the farmers and processor themselves within the same area. In both the Shouf and West Bekaa areas, within the same village, there are at least 3 to 4 processors and farmers. A processor articulated the existing competition between the other ladies where each is pricing competitively to attract more customers. Since this is a free profession, there is no fixed price so each individual can price as they wish. Pricing competitively does not suit everyone since some incur more costs than others.

Markets and Marketing. Many processors shared the same impediment of not being able to find markets to sell their products. Many of those have found a solution to only process quantities based on demand. Most of the participants have set a customer pool; processors can estimate in advance who are their customers, usually the villagers

and a few urban visitors who intentionally make their visits to buy the products. Over time, processors learned the demand trend. Processing based on demand or based on fixed quantities can be considered as a hindrance to expansion and development.

Although products such as Keshek and Ambarees can last long for a shelf life of over a year which presents an advantage of sale flexibility, processors would prefer not to leave unsold stock in fear of remaining unsold till next season. So, the main problem lies in finding new markets to expand their sales. Same case is viable for farmers who have fixed customers. Finding new markets is also linked to having good marketing strategies, in which currently there is a lack of. Farmers and processors are usually not strategists. Their marketing strategy depends solely on word of mouth and loyalty of their customers.

On another note, none of the participants have a brand for their products. The products are sold in plastic bags or boxes with neither a brand name, expiry date, or nutritional information.

Seasonal Production. Goat milk and products are only produced during a specific season when milk is available, usually from March to August. Income flow is fluctuating over the year. That's why in many cases, it is common for farmers and processors to have parallel careers to secure a stable flow of income.

b. Sector Interest and Attractiveness

This generational profession is not any longer appealing to the younger generation. From one end due to the advancement in technology and attractiveness to more urban careers, and on another end the many challenges facing this sector,

including not being profitable in many cases. Several farmers even reported that they would not recommend their children to go into this sector because of the burdens they are bearing. This sector, especially if using traditional farming and processing techniques, is tiring and requires physical effort and commitment that many of the younger generation are not used to and attracted to anymore. In addition, raising goats entails specific set of skills and expertise along with needed resources such as shelter and land, unlike other business that require small spaces and a small sum of money to start-up. Goats are live animals that need to be fed and cannot be put on hold if negative circumstances materialize.

In addition, villagers are becoming increasingly apathetic and intolerant towards farmers and their herds. Mindset of many Lebanese villagers is pretentious that they see farmers as trivial people. They would not let the goats near the village and would report the farmers for minor disputes.

c. Low efficiency

On average, goats in West Bekaa and Shouf which are commonly Baladi breed, produce between 0.5 and 1 kg of milk per day, while in neighboring countries such as Cyprus where improved breed of Shami goats produce around 4 kgs per day (CyprusShamiGoats, 2020). Traditional farming and homemade processing yield less productivity which is a disadvantage when compared to industrial production.

d. Input Suppliers: Land, Feed, Medical Care, and Workers

Land. Most common concern among the farmers is availability and accessibility of grazing land. A nationwide problematic is the unorganized construction leading to the diminishing of green areas. Landowners are also investing in converting open land to orchards of cherries or apples that are prohibited for goats to access. In both areas, landowners and municipalities are making access to rangeland difficult. Farmers are depending increasingly on feed.

In the Shouf area, the Shouf Cedar Reserve has projected new difficulties on Shouf farmers that weren't existent previously. The Reserve forbids farmers to graze their herds within the reserve through reasoning that goats graze on greens and are a hazard to the growth of the forest. Since the establishment of the project, the grazing lands have been protected and made inaccessible. Farmers argue that goats are part of the biosphere that the reserve is protecting. The Reserve has appointed expert "outsiders" to assess the area and make decisions regarding what's beneficial for the area while not taking into consideration the experience of the farmers with this land and their inherent knowhow; engineers' word over farmers'. Farmers demand that the Reserve listen to their assessment and believe that their input along with the experts' feedback can create synergies.

In the West Bekaa, available lands are either open range lands (semi-arid), rented rangelands, or rented cropland. The rent is relatively expensive. Furthermore, goats that graze in semi-arid rangeland in comparison to cropland produce less milk due to less food and water.

Lack of accessibility and availability of green areas for traditional grazing led farmers to apply semi-intensive production system. This practice caused in 30% decline in milk production per goat and increased the mortality rate of younger goats due to water scarcity and diseases such as Malta fever and Mastitis (MercyCorps, 2014).

Feed and Medical Care. Farmers are increasingly relying on feed and vaccines; the two are expensive costs. The big feed and medical companies set their high prices as they are the more powerful players. The small-scale farmers have little bargaining power. With no regulations and corruption, poor farmers are exploited for profits.

Workers. Most of farm workers/herders or dairy workers are Syrian. Finding a Lebanese person to work in such jobs is rare. In addition, farming and handling dairy products require expertise which is not common to be available. Hiring qualified workers is expensive.

Farmers are increasingly relying on workers, especially the younger farmers. It is rare to find a young Lebanese villager herding small ruminants. It is usually Syrian workers or poor Lebanese families from other areas. As farming suggests creating livelihoods by absorbing manpower, it is rare that this manpower is local.

Cost of inputs is expensive and burdensome which makes the profit margin low.

e. External Factors: Economy, Governmental and Municipal Support, and Non-Profit Aid

Economic Decline. The economic situation is worsening and affecting the poor and vulnerable first and the most. Small-scale farmers and processor are bearing the heaviest weight of the economic downturn.

Governmental and Municipal Support. The agricultural sector in Lebanon is underdeveloped and neglected. Little to no support from the government is provided.

The importance of this sector remains underappreciated and minimal to no development strategies are being implemented. Proposals for development by the government seldom get to see the light, if they do, they usually get disrupted for political and corruptive motives. Participants sense carelessness from the government's end towards this sector and constantly feel 'persecuted', as described by a farmer. Farmers are in a continuous battle to make a living and to protect animal and agricultural resources, many of which have already taken the decision to sell their herds or strongly discourage their children to take on this profession.

Farmers from the Shouf reported to have previously received support in the form of feed and vaccines. The support is not continuous nor monitored.

“A farmer from the Shouf narrated to have “almost” received free vaccines from the government, but was then told that governmental personnel sold the vaccines to veterinaries, who in turn sold them to the farmers. Therefore, everyone in this chain made profit on the behalf of the farmers and the taxpayers.” The truth to this story cannot be confirmed, but the probability of it happening in a corrupted environment, such as Lebanon, is very likely. Another farmer narrated to have gotten a generous amount of money, said to be for farming purposes, from a candidate in an upcoming election and was promised support for the whole goat sector and area. After elections, no support was ever received.

Municipalities in both areas are described to be unsupportive. Instead of creating motives for farmers to encourage their craft and increase interest, they are

exerting pressure in different forms to drive away farmers. In more than one village, the mayor, as described, believes in the vision of having a “clean and modern” village and perceive animals as inconveniences. For instance, as portrayed by two different farmers, the municipality is issuing fines for minor errors and then officers would require a bribery offer to disregard the slips. In addition, a municipality in the West Bekaa was noted to place fees on mshaas, which used to be freely accessible.

Having farmers keep their goats far away from their villages, according to the circulated decree, creates an inconvenience and extra cost on farmers. This regulation indirectly decreases the interest and motives of small-scale farmers specifically; farmers who wish to have small herds (10-20 goats) would rather put them next to their house or somewhere close, but instead they are forced to move them farther which lessens manageability and incentive to have a small herd.

Non-Profit Aid. The Shouf area is a historical, cultural, and touristic destination that attracts many visitors. Due to the popularity of the area, many NGOs, national and international, were interested in conducting projects in that location. In addition, many NGOs nested there as they saw the opportunity and potential. Therefore, the Shouf farmers and processors were asked about the effect of these aid and development projects on their professions. Unanimously the participants responded to have received no direct benefits from these agencies. Although the Shouf Reserve has a shop that sells organic products including goat products made by locals, processors were reluctant to participate when asked and showed no interest by stating that the Reserve has strict rules for accepting products. As an inference, processors generally prefer not to be controlled by any superior monitor and to work on their own terms.

Villages mentioned in this study such as Mreste, Niha, and Bater in the Shouf, do not benefit from the popularity as they are rather isolated and far, thus do not attract visitors and are often excluded from developmental projects and aid. Therefore, customers are usually local villagers.

Many participants in both areas stated that on many occasions aid agencies and NGOs visited them for survey data gathering in return of support in the future, but they never fulfilled their promised. Farmers felt that they were taken advantage of by participating in the process on the basis of receiving benefits in return.

f. Power Relations within the Value Chain

Small-scale farmers and processor are the most important actors in the short value chain of the goat sector (see Section 6: Value Chains), nonetheless, they are also the weakest actors in terms of power relations. There has been a process of change that disrupted the profitability and sustainability of these livelihoods. Starting at the very beginning of the supply chain with input suppliers, feed and medical supply companies set their own prices; which are high for small-scale farmers. Additionally, in the WB specifically, large dairy factories that buy milk from the farmers lobby and monopolies the price of milk. Milk is bought by the factories at 600LBP, which farmers consider to be too low in reference to the costs incurred. Farmers have tried on several occasions to bargain to increase the sale price. Factories acknowledge their supremacy and that farmers do not have other options but to sell their milk at the set price. Same case was narrated to occur with prices of goat meat and kid goats in the current market. With the ongoing competition and irregulated sector, farmers remain the most vulnerable and their livelihoods in jeopardy.

In the Shouf, the value chain consists of farmers and processors (as shown in Figure 5). In rare cases do the processors sell their products to retailers. Due to not having large factories in the area, farmers and processors have to find direct customers to sell their products to.

8. *Opportunities for the Goat Sector*

a. Benefits and Advantages of Goats and Goat Dairy Products

i. Dairy Products

Traditional Products and Culinary Heritage. The production of goat products such as Ambarees and Keshek are traditional and represent culinary culture.

There's a worldwide effort to improve rural life especially that rely on small ruminants by valorizing the products of these rural people to become sustainably profitable. This valorization would add value to the rural life and encourage the people to stay in their villages. Protected Designation of Origin (PDO) is an approach to trademark a product for its specific way of production, processing, ingredients, and regional origin. The PDO specifies an innovation for which the production process, from raw materials to finished product, occurs primarily within the designated region (Borg and Gratzner, 2013). Successful examples of PDO cheeses are Roquefort and Parmesan cheeses among others that are named after the regions in which they are produced in France and Italy respectively. Moreover, products like Ambarees, Serdele, and Keshek can be trademarked for their originality and regionality and marketed as such. The added value can create opportunities for the regions and its inhabitants.

Climate-Smart Products. With the ongoing debates of population increase leading to increase in demand for food, intensive agriculture, globalization, urbanization, and land degradation, increased pressure on climate change is being exerted (Mwongera et al., 2017, Taylor, 2018). Climate Smart Agriculture is the newly lauded approach promoted by international institutions such as FAO and the World Bank to tackle and decrease causes of climate change through sustainably increasing productivity and incomes, building resilience against climate change (adaptation), and decreasing greenhouse gas emissions (mitigation) (FAO, 2013). CSA challenges food security and climate change jointly and in parallel.

Goat dairy products produced by small-scale processors are resilient; utilize locally available inputs. In addition, goat products require no technology source and can be produced with traditional tools and methods.

These products do not include any preservatives.

Through adaptation, generations have learned to maximize usage and extend shelf-life of goat milk and goat meat since goat milk is seasonal. Milk can be processed into different forms of Mouneh, for example Labneh Mkaazale, Ambarees/Serdele, Keshek, etc. These products can last up to a year if well preserved. Ancestors also developed techniques to preserve meat, especially with no refrigeration. Goat meat can be transformed into Qawarma, minced meat cooked in fat and stored in earthenware or glass jars. Qawarma can last up to one year until the next season.

These traditional methods can be developed in a manner to increase efficiency and productivity while maintaining low GHG emission.

Variety. Many different varieties of goat dairy products can be made. Other than the aforementioned selection of products, processors are inventing new ways to complement or change flavor by adding herbs, spices, and seeds. These products can as well be eaten alone or added to dishes.

ii. Goats

Decrease Risk of Fires. Goats vigorously graze on fire prone vegetation. Farmers emphasize the importance of goats in the reduction of fire hazards. In West Bekaa shortly before the field visits a forest fire had taken place and farmers explained that this land specifically prohibited the entering of goats. The fire ‘outline’ can be clearly seen where adjacent lands that allowed goat grazing were the barrier for the fire to cease. In the Shouf as well, a farmer reported that the Reserve witnessed a fire and then after they sought the aid of the farmer by asking him to move his herd to the lower perimeter of the reserve. The farmer declined the proposal since, as he explained, the Reserve did not offer compensation for the transport and distance inconvenience.

Fertilize Lands and Prune Trees. Goats clear the lands from unwanted weeds and fertilizes the soil with a trail of manure.

The debate on whether goats are a cause of deforestation is still ongoing among ‘experts’ and farmers. Papanastasis (1986) reassures that goats are not the direct cause of deforestation as many discourses assumed previously, but rather overgrazing and lack of organization. Farmers should avoid newly planted forests but should be allowed in otherwise. Goats prune grown trees without risking its growth. As stated by a farmer, goats also step on harmful insects. In addition, the herd progressively cultivates the land while walking over the same area. Controlled grazing has several positive effects

including conservation of variety vegetation and heterogenous landscape resulting from the different environmental and management conditions, upkeep of quality pasture, and the prevention of soil loss due to erosions (Ruiz et al., 2009).

b. Cooperatives

Cooperatives, if managed well, can act as contributors to the economies and communities. Their role as social and economic collective institutions can aid struggling communities and sectors to overcome many challenges. Small-scale economic actors such as farmers and dairy processors can benefit from the exitance of such institutions through increased social protection and security, creation of job opportunities, thus alleviation of poverty and decreased urban migration (ILO, 2011). Communities and social networks are strengthened by successful cooperative efforts through asset sharing, fair distribution of resources, improved access to markets, and strengthened bargaining power of collective small and medium actors (ILO, 2011, ILO, 2018).

To complement demand, finding the right markets and right marketing strategies are essential. Problems in this area can be summarized as such; Consumers do not know that such products are available and accessible, or products are not available and/or accessible in certain areas (in urban areas; urban areas are considered within the local market): knowledge, availability, accessibility. Cooperatives can propose a solution. Arthur (1985) suggests creating a center for cooperative market development funded by the state and producers. These cooperatives might share grading, packing and storage of local products. They also might exchange equipment, initiate a revolving loan fund, or coordinate workshops on production techniques and on marketing, and most importantly, they could help in distribution, finding markets and potential client lists (buyers, retailers,

distributers, etc.), and promote the products to make customers aware of their existence and importance. A good strategy by cooperatives also would be organizing a collector with a refrigerated vehicle that would pass around producers to collect the products and distribute them in urban markets, since many farmers and processors do not possess adequate vehicles to do so, thus assisting accessibility of local rural products to urban markets. The coops, along with NGOs and municipalities can organize farmers markets as well, in many areas, rural and urban. Moreover, coops and NGOs can work with big supermarkets and corporation on a CSR strategy (Corporate Social Responsibility) to promote local food systems.

Since small-scale farmers are the least powerful actors in the value chain, cooperatives through collective efforts play a potent role in bargaining for better prices of inputs and milk sales against larger suppliers and larger dairy factories, thus increases revenues for farmers.

It is crucial for cooperatives to be led by processors and farmers themselves. They are the ones who know what is needed and missing in their areas and sector. The government, specifically the Directorate General of Cooperatives within the Ministry of Agriculture, should have a supportive and monitoring role.

Democracy within the cooperative should be maintained. None of the participants are active members of coops. It was reported that there is an agricultural coop in the Shouf, but farmers say “it is not beneficial, and sells input (feed and vaccines) same price as suppliers”. In the West Bekaa area, there is a Crafts and Mouneh coop, but a processor commented that the coop lacks democracy and representation as it is run by the same person (female) for more than 20 years. The president was reported to coerce

processors who wish to benefit from the coop to sell their products, by taking a percentage from their profit while making them find their own customers. It is crucial that roles and benefits within coop are distributed fairly and democratically.

The cooperative sector is still underdeveloped in Lebanon.

c. Local Food Systems and the Goat Sector

“...People are designing and implementing sustainable, local food systems that are rooted in particular places, aim to be economically viable for farmers and consumers, use ecologically sound production and distribution practices, and enhance social equity and democracy for all members of the community” (Feenstra, 1997). Local food systems encourage local communities to take control of their own food economies. As the world heads more to a commercial and globalized food system, it's leading towards loss of community connection and culture that accompany the uncritical acceptance of agribusiness and mechanization in our food and agricultural system. The matter is not just about availability of food, it has become a matter of sustainability of the environment, how healthy is the community's diet, and how much agriculture and food processing contribute to the community's livelihoods, culture, and wellbeing, especially in rural areas.

The increasing population and the popularization of urban dietary trends that encourages the demand for livestock products and commercial foods heavily affect the environment and the resources used (Herrero and Thornton, 2013). Kneen (1993) depicted the notion of 'distancing' defined by the act of creating a distance between the community and their sources of food. Communities should eat of what they harvest.

Local food systems consider investing and promoting local crops and local agricultural techniques that suit well the type of land and ecology of a certain community. Traditional know-how is very important; if combined with modern techniques that increase efficiency and effectiveness of the inputs, capital, and labor, synergies can be made. Food also presents a historical background of a certain region and narrates generations of transmitted traditions. Without this sentimental value approach, local food systems cannot perform as well and be sustained (Delind, 2006). Conner et al. (2009) adds that attributes that create value for consumers in local food systems are special proximity, food quality, and relationship between farmer/processor and customer.

While the goat sector in developed countries is organized, market oriented, and attracts funds, it remains underestimated in Lebanon. Goat production systems are often apart from the market. The consumption of caprine dairy products is mostly limited to the rural population. As such, the goat sector is considered as a local food system in rural Lebanon with social and economic significance that can as well have the potential to develop.

Micro-businesses as part of local food systems and local short value chains play a big role in economic growth, absorbing manpower through creating job opportunities, providing cheap and affordable goods and services, and also being able to prevent poverty. In addition, micro businesses are also one of main components to develop local economy, and it has potential to increase women's bargaining position in a family.

d. Food Security

Lebanon is major importer of food. In times of crises, food security is hindered and a state of panic is created. Rural communities retaining food production practices and agricultural livelihoods contribute to the lessening of food insecurity and building resilience on a household and community level (Ghattas et al., 2013). Small-scale farming is an approach to build resilience against economic shocks by relying on local production for a variety of products.

In terms of availability and stability, pillars of food security, goats are part of rural communities including the Shouf and West Bekaa. As previously mentioned, many varieties of dairy and meat products can be produced using local inputs and sustainably adaptable techniques to last for the whole year. Regarding accessibility, goat milk is available and affordable to households to process. In addition, households can buy ready made products from local processor if they wish not to prepare it themselves. Some products are relatively expensive, and maybe more expensive than cow products, but there are always different options. As for quality and nutritional intake, goat dairy products are healthy natural products. Lebanese dietary patterns consist of a large portion of dairy products, especially in the rural. Homemade processed goat products are preservative-free, natural, and healthy, unlike factory-made products where many include powdered milk to increase production and decrease costs. In addition, small-scale herds mostly graze on natural grass while factory goats and cows are force-fed with synthetic supplements.

e. Aid and Development Initiatives

NGOs play an important part in development if done right. Many projects targeting the goat sector have been done. Recent project by Secours Islamic and AUB in the Shouf and West Bekaa areas targeted processing of Ambarees. Partakers were processors and new-comers. The training consisted of Ambarees making. A course was given on how dairy processing should be done with notes on hygiene and food safety. Ambarees clay jars were given out. Such projects are beneficial for existing processors to enhance food safety and learn new information, and advantageous to encourage and teach new-comers to process dairy products in their households. Aid for farmers as well is important to support this sector.

Other initiatives, such as Darb El Karam, a food tourism project that connects farmers, processors, guesthouses, and other, created an opportunity for farmers and processors, a beneficiary explains. West Bekaa is not perceived as a touristic area but projects and initiatives are attracting visitors and providing exposure to the areas and its inhabitants, and their only assets being food and agriculture. Tawlet Ammiq is another initiative by The Shouf Reserve set in the WB. Similar projects are set in the Shouf as well, but the largest attraction in terms of nature remains the Cedar Reserve. In addition, aid agencies and NGOs also provided tools and supplies to the beneficiaries. A participant reported receiving a food drying machine worth around \$2000 that was a great aid to her Mouneh craft.

Almost half of participants in the research reported that they would be interested in attending sessions done by NGOs. Reasons are summarized as such; interest to learn new techniques of processing or handling food safety, sharing of

knowledge, and getting free supplies. The other half replied that they already have been in this sector for generations and do not require training sessions.

On the other hand, trainings were described to have more male participants than female, although processing is mostly done by female, as previously portrayed. This occurrence is explained to be due to the mobility factor. Since processing is done as household activity, it is sufficient that one person per household attends training.

Planning and launching a development project is important, but ensuring sustainability of the cause is vital. Examples of failed projects were provided when no follow-up was done.

f. Government Support

The goat sector is unregulated and places small-scale actors in weak positions against the market. The Ministry of Agriculture should design a strategy to monitor prices of input suppliers, of sale price of milk imposed by large dairy factories, and meat. The strategy should aim at protecting the interests of vulnerable farmers overpowered by monopolizers and lobbyists.

There is a public agricultural extension center in Deir El Qamar, Shouf. The center provides sessions and programs regarding different agricultural topics. Extension centers in Lebanon should be further activated to include more activities, services, and facilities. To be effective and helpful, agricultural extension centers should engage in transmitting updated technical knowledge to farmers while also bridging the gap between farmers' concerns and public agencies (Birkhaeuser et al., 1991).

Governmental support can aid in increasing taxes on imported goods, especially dairy goods such as Laban and others, thus making local goods more available and affordable. Another strategy to lower the sale price is to decrease the incurred costs. Many farmers also reported that subsidies and support on goat vaccines, animal feed, etc., had decreased by the Ministry of Agriculture. If the Ministry were to re-include these farming support in governmental expenditure, this will help farmers lower their production costs, leading to decreasing their selling price. In case of low sales during a season, the government should have a 'relief commission' on stand-by ready to aid in case of need.

Municipalities can do so much on a regional level to help promote local food systems by advertising the products and aiding producers and farmers by facilitating access to grazing lands, establishing veterinary extension centers to aid farmers, etc. Municipality should work on increasing the interest and tolerance towards farmers by showing appreciation towards these traditional crafts. The government can also help finding markets through encouraging and sponsoring farmers and processors to participate in fairs organized by municipalities. Also, municipalities should incorporate products prepared by the locals in municipal events instead of employing catering companies.

Governmental support and encouragement is vital to small-scale traditional farmers and processor to exalt the performance of this sector thus improving the quality of life of villagers and rurality.

g. Certification of Food Safety

Quality should be assessed and improved. Usually artisanal products have issues with safety and hygiene because the production methods are traditional and ‘old-dated’. The aim is not to industrialize these productions, but rather to encourage preservation of traditional values and at the same time have the minimum safety qualifications to be marketed well.

The Ministry of Health/Agriculture should impose standards and certifications and organize proper monitoring and supervision. Coops can do so as well on a regional level by grading the quality. Certificates should be given to farmers and processor to empower their marketing, and encourage the abiding of farmers by these standards. Consumers will have more confidence in products if they are certified. In addition, coops and associations can organize capacity building session and trainings on the proper hygienic and safety techniques.

h. Women and Youth

Women. The role of women in rural communities is vital. In many cases, women are the guardians of traditions who are transmitting knowledge through generations, especially small-scale home productions. Women are important actors in local food systems and short value chains.

Women are commonly known to produce Mouneh products including goat dairy products for sale or as a household activity. Aiding this production will safeguard livelihoods of many women. These productions as well propose options for uneducated

women to have income generating activities while at the comfort of their own home to contribute to the household income.

In other rural communities like in West Asia and Africa, women are responsible for milking and feeding the goats (Aldosari, 2018, Cooper and Palmer, 2005). This model was not attributed to the communities at hand. This can be linked to the fact that the farms are far from the houses so women learned to stay home and take care of the house and family during the day. Wives of farmers rarely visit the farm or help in farm work. They are commonly stay-at-home wives in charge of dairy processing.

Women in these communities cannot be described as deprived of autonomy compared to poorer or more conservative societies in developing countries. However, it is common for women to be dependent on their husbands, but are not a marginalized or inferior subpopulation, as someone might predict. This fact encourages women to have occupations as the mindset of women and men jointly is tolerable of working women, especially in crafts, Mouneh, and house productions. Productive livelihoods increases independence, empowerment, and bargaining power of women within their households and in their communities.

In terms of marketing, customers are more at ease when they recognize that products are prepared by women. It creates a sense empathy among the clientele who relate homemade products to their mother's, grandmother's, or wife's cooking.

Youth. Unemployment is one of the dominant challenges among the youth. Agriculture is an underdeveloped and unsaturated sector which can still absorb many initiatives and business projects. The reasons that render agriculture as unattractive to youth

are: (1) Deskillling of rural youth; education sets high expectations and the agricultural sector is perceived as a low-income livelihood and (2) the challenges facing the sector.

“Who will own the countryside when today’s youth reach adulthood?” (White, 2012). Small-scale farming should be encouraged among the youth. While traditional farmers are decreasing, large-scale industrialized farmers are taking over.

This sector can provide employment opportunities, especially for rural women and youth, while emphasizing environment preservation, quality, and sustainability.

D. Microfinance

1. Availability and Accessibility of Microfinance

Availability. Ibdaa Microfinance s.a.l. and Al Majmoua are the identified MFIs in the Shouf and West Bekaa areas. Both have branches in Semkanieh, Shouf District, and Al Majmoua has an additional branch in Joub Jannine, West Bekaa. There might be a possibility of other present MFIs in the areas, but based on available data and input of participants, the aforementioned were identified. Other MFIs, if existent, can be considered as partially unavailable since none of the farmers knew of their presence.

Other MFIs are available in neighboring areas such as Zahle, Aley, Rachaya, and others. Majority of MFIs have branches in Beirut and other large cities such as Tripoli, Saida, Tyr, and Zahle. All participants have at least one car per household, so in terms of mobility, participants are able to go visit an MFI office if willing.

It is notable that many MFIs have their website only in English or French. Information and inquiries among farmers and processors is usually through phones or live visits, except the young and educated among the group who can rely on online

information. Most MFIs provide online applications for loans. Nevertheless, in the Lebanese context, especially rural, people are hesitant to apply, pay, or make any transaction online, even if they have the capacity. Live interaction remains the de facto approach to engage in a service or transaction.

The Shouf Reserve established a Cedar Loan in 2015 that lends up to \$3000 “targeting all individuals engaged in agricultural, environmental or social efforts and activities that serve the protection and preservation of the Reserve” (TheMonthly, 2015). The program has recently ceased (as of January 2020) due to the ongoing turmoil in Lebanon.

Outreach. Outreach is usually done through distribution of pamphlets at the agricultural extension center or other relevant centers within villages. Other methods include TV commercials and billboards.

Accessibility. All participants in this research qualify for microloans based on MFI criteria. Candidates for microloans qualify for either women programs, craft and traditional professions, agricultural projects, or as rural initiatives.

2. Internal and Informal Credit Networks within the Sector

Within the sector, many informal models for transactions and business relations are cursively implemented. Participants described their relation with inputs suppliers to be lenient. Supplier and distributors are mostly from the area, visit the area frequently, or are long-term business connections, and have developed a close trust connection with their clients. In Lebanon, especially in rural areas, business relationships are frequently based on trust.

Villagers in the Lebanese rural areas are often known for high sense of pride. Although many farmers and processor might be poor or *not rich*, thus reputation and self-worth is highly valued; villagers would do the utmost to keep their promise for repayment. This attitude factor adds to the trust relation. In addition, many transactions are occurring among the villagers themselves which might be relatives or neighbors. If one person mistreated the trust, word would go around and others would be hesitant to work with them. Pride also affects the mindset and perception of villagers towards debt.

In the agriculture sector, many agriculture activities are slow income-generators. Crops or animal productions in many cases require time and specific seasons to harvest, thus formal and informal schemes for repayment are designed. Processors explained in the case of not being able to pay to their milk supplier, Bulgur supplier (for Kishek), or other inputs, the latter allows processors to repay after they have sold their products, and if needed, an extended duration is given. This system, as per the participants, is based on the trust formed between the two parties over the years of having business together.

A processor narrated that she sought buying a machine for drying Mouneh (not goat dairy products), that would cost around 2,000USD. Her first intuition was to apply for a loan with an MFI. Later when she visited the supplier to check the price of the machine to plan for the loan, the supplier suggested an installment plan with no interest since he knew her and he was from the same area. She would have paid interest should she have chosen to take a loan.

Likewise, farmers have similar relationships with their suppliers. Furthermore, a few farmers described in kind transactions as well. A farmer explained that his land

lender would accept milk or manure worth of rent. Another farmer conveyed to barter goat kids in due time in exchange of feed (the supplier is also a goat dealer).

When asked, “If you ever needed money, where would you go?”, without giving options, especially without mentioning MFIs and NGOs to keep the responses raw and unbiased, the answers fell into the following categories:

Mode from Obtaining Money	Bank	Sell Assets (Including Goats)	Borrow from family and friends (without interest)	Borrow from family and friends (with interest)	MFI
Frequency	11	10	7	1	1

Table 10. Preferred Mode of Obtaining Money when needed

The most common modes of obtaining money are banks, selling assets, and borrowing from friends and family without interest. People who chose banks explained that they prefer not to ask for favors and would rather utilize a professional institution (bank) for lending money. This attitude is attributed to pride and independence. Majority in this group clearly expressed being uneasy with taking loan since they do not appreciate “owing money”, but would choose this option if necessary.

Other participants, undoubtedly uncomfortable with debt, suggested they would sell their assets, goats, vehicles, or other assets, to accumulate savings to meet their financial needs. This pool of participants are apprehensive with “owing someone money”. They would find a solution within their means to meet their needs without needing anyone or any institution.

The third group described their close relationship with their kin wherein they would not mind asking for financial assistance and explained that it is common in villages to help each other out.

3. Perception of Microfinance

a. Awareness of MF

	Aware	Consider MF in the future	DO NOT Consider MF in the future	NOT Aware	Consider MF in the future	DO NOT Consider MF in the future
WB	5	1	4	10	4	6
Shouf	8	4	4	7	1	6
Total	13	5	8	17	5	12
Total Consider Taking MF in the Future: 10						
Total DO NOT Consider Taking MF in the Future: 20						

Table 11. Awareness of the existence of MF and Consideration of Taking MF Loan for Future Plans

Percentage awareness of the existence of MF institutions and loans is 43% among participating farmer and processors. Outreach and promotion of MF programs, many of which are specifically designed for small-scale agricultural activities, have spanned less than half of the sample of targeted communities.

It is evident that in the WB, less people are aware of MF.

Some participants still confuse microloans with KAFALAT guarantees, or perceive agricultural loans as only being provided by KAFALAT. KAFALAT is more popular since it is interconnected with the government (Central Bank) and has a wide range of coverage and outreach.

Only one participant has taken a microloan from an MFI previously.

b. Degree of Consideration of a Microloan

One-third of the partakers would consider taking a microloan from an MFI in the future; including the ones who were previously unaware and got informed about MF from the researcher (see Table 11). This does not infer that they would actually get a microloan, but rather concludes that they would not mind resorting to one in case

needed or have the desire to invest. Many explained that for the time being, seeing the current economic and sectoral challenges, taking a loan of any kind and investing in this sector is not probable, but if conditions change, they are open to considering a microloan.

Purposes of the microloans among those who would consider resorting to MF varied and themed as follows:

a- *Expand production by buying more goats (3 farmers)*: The three farmers in this category have off-farm careers in parallel. They have workers taking care of the herd.

b- *Invest in buying goats to complement dairy production (1 processor)*: This processor would prefer having his own goats to produce dairy products explaining that he would know the source of the milk due to fear of food safety. Dairy processing is only a side career.

c- *Improve dairy unit and expand production (1 both)*: The dairy unit is mainly for cow products. Goat products were recently incorporated due to the success of the unit. The loan would be utilized to further improve and expand.

d- *To aid in expense payment (2 farmers, 1 both)*: During some seasons and low-yield years, farmers incur excess costs, thus a microloan would assist in paying-off expenses.

e- *To invest in other farm and off-farm activities (1 processor, 1 both)*: such as buying chicken and birds or other off-farm start-up businesses.

It should be noted that the participants in categories a, b, and c, who would use a microloan to expand, invest, and improve goat related activities are the ones who already are not dependent solely on goat production for income-generation.

Average age of MF-perceptives is 44 years old, notably are among the younger and educated in the pool. Gender distribution is 9 male and 1 female. It cannot be inferred from this study that males are more tolerable to taking a loan since there are more male interviewees than female and in many cases the loan can be considered as a household decision made by both but applied for by either. Based on other statistical studies, males are more open to taking loans and be risk takers due to different factors (Wahidi, 2017).

Those who responded negatively towards considering a microloan for future plans defended their answers according to the following:

a- *Not interested in expanding or investing in this sector (9)*: The average age in this category is 63. Older farmers and processors among the group who mostly have inherited this line of work or have been in this field at length expressed that farm work and processing handcrafted goods are tiring jobs. Due to their age and the lack of interest of their kids to continue, some are planning or are in the process of selling the goats and the farm, the others are satisfied with the current load and wish not to expand. In addition, participants in this category articulated the challenges they have been facing over the years in this sector which gives additional motives to sell their herd or to restrict their production and not invest further.

b- *Feel uneasy with debt and will find other means if necessary (6)*: Rural people and small-scale farmers, in specific, tend to consider loans as debt and burden, rather than investment opportunities.

c- *Microloan amounts are too small and interest is high (2)*: The two farmers explained that microloans can be as little as \$1,000 and \$2,000 and does not suffice for

any major payment. They would rather sell a few goats to collect the needed money without suffering any interest.

d- *No need and have savings to invest if needed (2)*: Participants in this category are better-off from their off-farm careers. Farming and processing are additional activities. For the time being, no consideration for expansion is imminent. If in the future they wish to expand, they have the savings and inflow from their other jobs.

e- *Unpleasant experience with MF previously (1)*: to be explained in next section.

As assumed and concluded by the visits, small-scale farmers are not investors nor businessmen; they would only take credit if needed or if they see an obvious opportunity to expand. Majority of rural small-scale farmers and processor are risk-averse, even though they are open to considering MF. Farmers do not weigh profitability in terms of returns or opportunity cost. They do not abide by complex business strategy to weigh expenditure and investment. Very few are the ones willing to take credit and risks to expand or improve their line of work. The latter are mainly the younger and educated among the participants.

4. *Experiences with Microfinance and Debt*

Only one processor have taken a microloan from an MFI previously (Borrower #1). Three other participants have taken a KAFALAT loan guarantee, but only one for caprine purposes while the second for improving a dairy unit, mainly for cow products, and the third to buy chicken.

a. Borrower #1

Profile. Processor; Female; Married; Aged 50; Reached highschool; from Shouf area. Her husband is a goat farmer, among the largest farmers in this group.

Purpose. To fix an already existing room next to the house and transform it into a processing area for goat dairy products, Laban, Labneh, Cheese, and Ambarees. She wanted to independently renovate the dairy unit without asking her husband for money. She was previously processing in her kitchen, and having a separate dairy unit would make work more manageable creating more opportunity for growth.

Choice of MFI. She is well informed about MF and had done a research by contacting several MFIs to check rates, repayment plan, and other conditions. She decided to choose an MFI in her area that offered a women's program.

Procedure. She submitted her business plan and was approved the maximum amount given in the program, i.e. 4,000,000LBP.

Experience. She indicated that it was an unpleasant experience due to high interest rate. In the future, if needed, she will not rely on MF and does not encourage anyone to invest using a microloan. If needed, she will save money from processing to invest in a project. On the other hand, the processing unit is successful. The purpose of the loan was achieved by renovating the room into a small dairy unit which made her processing experience easier.

To conclude, this processor utilized a loan to improve her line of work. She already had the connections and customers from her husband's work and hers. The loan allowed her to improve the dairy unit and thus improving her capacity. However, the interest was high and the money collected was being used to repay the microloan.

The next three borrowers did not take microloans from MFIs. They resorted to commercial loans with KAFALAT guarantees for larger sums of money. Their input is mentioned in this study because MF is a form of debt and their perception towards the guaranteed commercial loans can be attributed to behaviors towards MF, and debt in general. In addition, this research studies investments in this sector and examines previous experience in investing in the agricultural sector and the goat sector in specific, when available.

b. Borrower #2

Profile. Farmer and Processor; Female; Single; Aged 30; University Degree in Agricultural Studies; from the Shouf area; also employed – goats are not her only source of income and only contribute 20% to her overall revenue.

Purpose. To buy goats and newly start this business. She has workers taking care of the farm.

Procedure. She conducted a thorough business plan and feasibility study before venturing into this sector. Her study suggests that milk production would cover expenses and the sale goat kids would collect revenue.

Small sums of money that MF provide are not enough to invest in this sector, that is why she resorted to KAFALAT. She bought goats, arranged shelter, bought a vehicle, and employed farm workers. Repayment procedure, as she explains, was easy and interest rate was almost 0% to be repaid over 7 years. The money was not given to her but given directly to her suppliers. They also monitored her work closely to make sure she is working according to her presented plan.

Experience. She clearly conveys that the problem was not with the loan but rather in the sector. She has been facing a lot of challenges, namely high cost of production and low sale price of milk and goats. The herd size is increasing and she is not able to sell goats because of the very low selling price in the market. The increasing herd size is increasing the expenses. She explains that she is paying from her own money for the farm, rather than the farm cash inflows covering outflows. She does not see prospects for opportunities within existing structure of the sector, especially in the irregular markets. Investing in this sector in its current form and function is a loss to any small-scale traditional farmers, according to her. When asked if she might consider a microloan in the future, she answered, “for the time being no since I’m still paying for the other loan. But, I do not oppose the idea and if I see a need in the future, I will sure consider MF as an option.”

c. Borrower #3

Profile. Farmer and Processor; Male; Aged 47; Married; Completed highschool; from the WB area. He is mainly in the cattle business owning cows and a dairy unit for cow products. Goat products were recently incorporated to complement the work and constitute 20% of total production.

Purpose. To buy 10 more cows, as he already had cows, and improve dairy unit. 25,000,000LBP were requested and approved.

Procedure. He mortgaged a land property to get the loan. KAFALAT was chosen because it has lower rates and extended period of repayment. MF does not cover such large loans.

Experience. Overall it was pleasant and successful experience. Repayment was easy and not a burden. The loan allowed for the expansion and increase in production, hence increase in income flow. He suggests that a loan can be considered a development tool only if the person is well informed or has experience in the field he/she is investing in, otherwise the project might fail and leave the micro-investor in debt. Responsibility is also on the lenders and MFIs to assess the proposal if profitable and guide lenders, especially if newcomers to a certain sector. He might consider a loan in the future if he senses an opportunity, he explains “but not a microloan since those are small amounts an in this line of work, we require larger sums.”

d. Borrower #4

Borrower #4 is a male processor from the Shouf are who took a loan from KAFALAT and bought 150 beehives. He has another off-farm business but is interested in agriculture. The project failed since he hastily planned the investment, didn't know how to take care of bees, and bought them during a bad season. It took a while for the bees to become productive. He is still paying the loan. Nonetheless, he is still open to considering another loan in the future to buy a few goats to compliment his dairy processing.

5. *Contribution of Microfinance to Small-scale Actors in the Goat Sector*

Microfinance falls short in catering the needs of the participants.

It can be inferred from this qualitative study that the challenges facing small-scale farmers and processors are sectoral, and namely regulatory, operational,

economic, and social. The role of microfinance in a developmental discourse is to tackle financial inclusion and lack of financial resource. As portrayed by farmers and processors above (Section 7: Challenges), the sector is facing major troubles that fall beyond the reach of Microfinance, in this present system.

The agricultural sector in general is becoming less attractive for farmers, especially small-scale farmers due to the constant challenges and uncertainties. There has been a process of change on different levels, social, environmental, economic, and within the shifting power relations in the value chain, that disrupted the advancement, profitability, and sustainability of farmers' livelihoods. The role of the state as explained previously is minimal in aiding and safeguarding these traditional professions. Many farmers do not see potential or opportunities in this sector in its current structure, thus many have other ongoing income-generating activities in parallel. Since opportunities are perceived as improbable, initiatives to expand within the sector are minimal. Only 26% (farmers) and 37% (processors) consider expanding their productions and activities in the goat sector in the future. Consequently, the need for money and microloans for expansion of goat activities or entry is not a priority. Reforms and improvements on all levels are a priority. The better-off larger farmers are the ones profiting from the current system and are encouraged to invest and expand their operations and not the poor small-scale farmers.

Microfinance requires good entrepreneurial skills and a favorable local market to achieve higher returns, which in many cases currently lacks.

In unfavorable and fluctuating markets and lack of regulation and support, microfinance might act as an instrument of burdensome debt (Khandker, 2005). As determined, cost of production for farmers is high. Goats are living beings that require

constant care and incur overhead costs. Unlike other investments, goat production cannot be put on hold when market is not profitable. Expenses are constantly accumulating. Therefore, investing in goat farming at the time being is a risky investment. If the project fails, due to external factors or internal factor (bad management) the farmers will have accrued heavy debt.

In addition, farmers are farmers; hypothetically they are not businessmen with finance and business expertise. Microfinance requires good entrepreneurial skills to achieve higher returns otherwise it can become a burden and lead to a worse economic condition (Khandker, 2005). An investment in this sector also require good knowledge and expertise about the sector. An agricultural endeavor might lead to failure if the investor did not plan and utilize knowledge and experience.

As established during the interviews, most farmers perceive loans or microloans as “owing someone money”. In financial terms, credit is an investment tool that even wealthy individuals or entities utilize if calculated returns appear tempting. Many farmers understand loans as burdens and “heavy weights” rather than a financial service with a price (interest), which can propose an opportunity; they do not recognize it as a risk that could render positive or negative returns. Borrowers #2, #3, and #4, even though #3 and #4 have had failed projects, understand that without the loans, they would not have had the opportunity to implement their projects and will still use loans if needed. Here lies the difference between entrepreneurs/microentrepreneurs and simple farmers. We cannot presume that all individuals have entrepreneurial intuitions and rationing. For microentrepreneurs, MF can offer valuable means. In the case of Borrower #1, although the project was successful and allowed for increased production, the processor perceived it as debt, rather than an opportunity or service.

MFIs should provide additional services pre, post, and during the expenditure of the microloan.

It is evident that many of the mentioned MFIs require a guarantee and a business plan to access a microloan, other personal loans are more flexible. Business loans should indeed be monitored, followed up, and assisted to make sure it is being used efficiently. Capacity building and training may also be required. MFIs, especially the non-profit, should also assist in marketing, finding markets, recommending favorable policies, and linking clients to cheap inputs and services to achieve their social mission, when possible.

The microfinance industry in Lebanon is dominated by NGOs which gives a slight hope that the interest of the beneficiaries is the most valuable, unlike Financial Institutions where both interests, the clients' and shareholders', are present.

Microloans are too small for some agricultural investments, especially in goat farming.

Many agricultural loans taken in Lebanon are from KAFALAT. Majority of the low-income subpopulation still prefers the traditional banking services. This might be the result of the offered subsidized rate and guarantee. In addition, many agricultural investments require larger loans rather than microloans. In the case of Borrowers #2-3-4 who have taken a KAFALAT loan, amounts averaged around 30,000,000LBP which is not offered by MF. Goats can cost around 350,000LBP per head and complementary expenditures such as preparing shelter or buying proper vehicle for off-road transport require large budgets. Microloans can be utilized for smaller investments like renovation or improvement, when the farmer is already familiar with the farm operations and is able to employ the microloan efficiently. Microloans can also be

utilized for investing in a small herd (6-7 goats), knowing that a small-sized herd cannot generate enough income, more recreational and for personal use rather than income generation.

Processors are more likely to utilize microloans.

Processors are more likely to consider improvement and expansion since compared to farming, processing has a lower risk of failure. Production is based on availability and demand, and tools and processes used are traditional and ‘not as expensive’, when compared to other productions. The investment amount required is on average less than farming. A microloan can be effective and is able to cover cost of assets or cost of improvement of a small dairy unit. If market is unfavorable, production can be put on hold.

The existence of informal credit networks in the goat sector and within the rural community renders MF as unnecessary in many instances.

In the goat sector, as described previously by the participants, exists informal embedded financial networks where stakeholders and value chain actors share mutual trust. In many occasions, farmers, their suppliers, and clients allow deferred payments, installment payments, or compensation in kind. Consequently, MF is perceived as unnecessary and costly (considering interest) by many.

The notion that microfinance is a tool for the poor to engage in income-generating activities is misleading as in many cases microloans are used to smooth consumption or for repayment of expenses. These notions can be linked back to challenges of this sector that is rendering farmers in ‘bad’ financial positions. Only 23%

(categories a, b, c, and e, in section b) would use microfinance for its purpose as microentrepreneurs.

MF provides an opportunity for women.

MF is suitable for women who are willing to make an investment without having savings or depending on their husbands. In the commercial banking sector, men are perceived as more reliant clientele (Hossain and Knight, 2008). While in MF, the majority of MFIs have specific programs for women and intend to lend to women more than men, for example, 71.2% of IbdAA's customers are women. MF has provided means for these women who otherwise would not have. In many instances during the interviews, the women (wives) were the ones who had the details regarding the availability of MF services. In villages, word goes around fast. So, if one woman took a microloan, she would propagate her experience to neighbors and friends. It happened that during the interviews in a particular village, the women knew about an MFI and its services and probably from the same source. It can be envisioned that if a person had a successful experience with a microloan and 'talked well' about it among friends and contacts, others would be encouraged to follow that path, especially among women social groups.

The reasons above explain the grounds of an unsaturated MF market in Lebanon; many farmers by nature are not investors and entrepreneurs, if it wasn't the case, other options are available within the banking sector and outside (internal relations and economic systems).

MF cannot work alone. It cannot assume farmers and rural dwellers as a homogenized underprivileged subpopulation in need of MF to better their situation. MF should be part of a holistic participatory development strategy that targets the improvement of the sector and rurality.

Rural development and development of the agricultural sector are vital initiatives for rural communities in terms of building sustainable livelihoods, safeguarding a traditional functioning value chain, providing food security, and maintaining ecological wellbeing. Microfinance as a development tool might be valuable but cannot work alone. Providing finance and MF plans to agricultural projects when the sector's is poorly performing might only cause additional damage. The discourse of Financial Inclusion and MF underpins that poverty and rurality are context-less and that the poor are homogenized subpopulations all sharing the situation of 'financial exclusion' and that MF can be administered as a development tool regardless of social, economic, and political context (Taylor, 2012).

The context (social and economic), challenges, and opportunities should be studied and approached before suggesting solutions. As analyzed throughout the study, major challenges were not finance-related and beyond the reach of MF. An overall bottom-up development strategy should be implemented that includes efforts from the government, districts and municipalities, institutions, households and individuals. As such, within this integrated holistic development strategy, MF may have a complementary role to improve access to finance, which is an important tool and resource for small-scale farmers and microentrepreneurs. In another flourishing sector, MF might perform better and aid small-scale actors; like in retail or industry.

Social benefit vs MFI profits

Microfinance emerged from the new development paradigm on the basis that the poor can self-help (Bateman, 2012, Khandakar and Danopoulos, 2004). This discourse has indeed succeeded in many cases backed with successful microcredit stories, but the aggregate effect on poverty and communities is yet to be proven. Failed microcredit experiences are also abundant. The failure and success of microcredit is based on internal (planning, management, etc) and external (economy, regulation, etc) factors. Till now, the only evidence of success is that of the MFIs proven by the increasing number of institutions, branches, and programs. The financial and banking sector, including microcredit non-profit institutions, has succeeded in integrating a niche that has been excluded before under the paradigm of 'development finance'. Does the social benefit outweigh or at least match MFI profits? The MF sector in Lebanon is left unmonitored and unregulated.

6. *Linking Microfinance to Actuality*

The interviews were conducted in September 2019. The interviewees responded to the questions based on their experiences and data available at that time.

As of October 17, 2019, a series of protests across Lebanon begun in resistance to corruption, mismanagement, and dysfunction of the Lebanese political system that has been affecting negatively the economic, social, cultural, and environmental wellbeing and security of the country and its residents. The economic system was bound to fail and the ongoing turmoil accelerated the system crash. The banking sector is in

deep distress leading to the weakening of the LBP against other currencies and speeded inflation. The economic conditions worsened with COVID-19 pandemic and lockdown.

The agricultural sector was suffering before and is suffering more with the ongoing economic crisis. Small-scale farmers and processors are among the vulnerable actors in communities being severely affected with the current situation.

Investments in several sectors are suspended for the time being due to unfavorable conditions and markets, and the lack of trust of in the banking and financial systems. Microfinance is a constituent of the financial structure that targets the poor communities. In such bearish circumstances, MF is also affected. Investments among the poor as well are halted.

Nonetheless, development efforts should not be ceased. During these difficult times, vulnerable agriculture communities should be supported; from one end to aid farmers, their households, and their communities, and from the end local food systems and short value chains can assist in lessening food insecurity and building resilience in times of crises.

MF was initially established worldwide as a result of the demand for capital for self-employment and microbusinesses. In such distressing and unfavorable economic condition, MF objectives perhaps should be revisited and revised to address current difficulties of vulnerable communities that are anxious of debt and wary of new ventures in the light of economic insecurity, inflation, distrust in banking and financial sector, and deteriorating living conditions.

7. Paradox of Developing the Sector

As explained by Dubeuf (2011), science is not synonymous of innovation. In the case of small ruminants, the paradigm is conscious that the intensive and modern model of rearing animals is better than pastoral and more extensive in using land systems proven by the ability to meet the increasing demand for food by the increasing population for the past 50 years. Still, the downsides of modernity are well portrayed in the deteriorating environmental and social attributes.

In that light, when asked “would you like to expand and improve your production?”, a farmer conveyed that he wishes to expand his farming production by building a large modern farm wherein goats would be completely sedentary and processes would be mechanized for higher efficiency and larger yield.

Although traditional farming and processing are important and should be protected as portrayed throughout the study, they are inherently less efficient than modern intensive productions. By encouraging traditional production, are preservation initiatives hindering the growth and potential profits of small-scale traditional farmers by ensuring they stay small-scale?

CHAPTER V

CONCLUSION AND RECOMMENDATION

This research firstly studies the current situation and conditions of microfinance in Lebanon and its availability, accessibility, and programs offered to small-scale goat dairy processors and farmers in Shouf and West Bekaa areas chosen as a case study. Secondly, documents and analyzes the perceptions of candidates on microfinance and examines the challenges of the goat sector to be able to assess the possible contribution and role of microfinance to the livelihoods of small-scale rural farmers, and to rurality generally. The results provide theoretical, empirical and statistical research material for researchers, practitioners, and stakeholders regarding the socio-economic context of the small-scale goat sector and the impact of microfinance on farmers and processors and rural community development at large.

Ongoing debates on microfinance suggest that it has the potential to empower disadvantaged segments of the population, whereby participants can utilize small loans to manage cashflows and make investments. Supporters are encouraging the expansion of MFIs and see it as a solution that can aid individuals and communities suffering from economic pressures to lift themselves out of poverty and become entrepreneurs (Bakhtiari, 2006). Others see it as a neoliberal tactic to rework debt relations whereby the poor are still and will remain indebted to the richer leaving little room for entrepreneurship and growth opportunity (Taylor, 2011).

The market of Microfinance in Lebanon is still undersaturated and limited research is available on its impact. In addition, research displaying the voices and perceptions of targeted potential beneficiaries falls short in supply.

Small ruminant dairy production is an important factor in the more complex Lebanese agricultural sector, and play a key role in the economic cycles of marginal communities in rural Lebanon (Hamadeh et al., 2006, Chedid et al., 2018). The goat value chain promotes local food systems, help in creating sustainable livelihoods, enhance socio-economic potentials, and contribute to food security while safeguarding culinary heritage. Micro-businesses as part of sustainable food systems are marginal businesses which are assigned to the use of simple technology, low level of capital and credit access, and lean towards a local market orientation.

As a brief conclusion, the agricultural sector, in specific goat sector (small-scale), in Lebanon face challenges far beyond what microfinance claims to resolve. Challenges are namely economic, environmental, regulatory, operational, social and hygienic.

The agriculture sector is becoming less attractive for farmers as a result. If farmers do not see potential or opportunities in this sector, they will not need capital and MF to invest in it, and would rather shift to another sector such as industry or retail. The better-off larger farmers are the ones who want to invest and expand their operations and not the small-scale farmers.

To have sustainable rural livelihoods especially concerned with agriculture, the sector should be regulated and supported by the state to ensure rights of farmers are protected and resources are distributed fairly. Technical support and monitoring should be provided to enhance efficiency and food safety. Participatory development programs should be adopted to assess the internal and external challenges of farmers and rural dwellers. As such, vulnerable beneficiaries like small-scale farmer and processors will be able to have stable careers and sustainable livelihoods that will aid them in acquiring the resources needed to help the them get out of poverty, embrace equality (gender, race, class, etc), be food secure, sustain health standards, and be empowered to fight for their right for resources, services, and better living conditions.

APPENDIX I

GOAT FARMER QUESTIONNAIRE IN ENGLISH

I. Personal Info		
<p>1. Area: 0 <input type="checkbox"/> Shouf 1 <input type="checkbox"/> WB</p>	<p>2. Gender 0 <input type="checkbox"/> Male 1 <input type="checkbox"/> Female</p>	<p>3. Age</p>
<p>4. Social Status 0 <input type="checkbox"/> Single 1 <input type="checkbox"/> Married 2 <input type="checkbox"/> Widowed/Separated</p>	<p>5. Number of Dependents (family members that are financially dependent on you)</p>	<p>6. Level of Education 0 <input type="checkbox"/> Illiterate 1 <input type="checkbox"/> Reads & writes (no schooling) 2 <input type="checkbox"/> Elementary (till Certificate) 3 <input type="checkbox"/> Intermediate (till Brevet) 4 <input type="checkbox"/> High school 5 <input type="checkbox"/> University 6 <input type="checkbox"/> Postgraduate</p>

II. Social Info
<p>1. Is goat herding your primary source of income? If no, please specify other occupation.</p> <p>2. Do you process milk into goat dairy products? If yes, is it for sale or only household consumption?</p> <p>3. On average, what is the % contribution of goat income to the household income? (specify separately if herding or processing when applicable)</p> <p>4. Where is the farm located, next to your house or a designated area for farmers? Do you own the farm or you rent it? If rent, please provide details.</p> <p>5. Farming and Household Structure:</p> <p style="padding-left: 20px;">a. Who mainly assists in farming work, if any [eg. spouse, children, parents, paid labor (Lebanese or Other)]?</p> <p style="padding-left: 20px;">b. If applicable, who does the dairy processing?</p>

- c. If applicable, are your children interested in working in this sector?
- d. In general, in your opinion do you consider farming (along with processing if applicable) as a family business or activity?

6. Gender Dynamics:

- a. In your opinion, do you see that there are specific roles for males and roles for females in the goat value chain?
- b. If applicable, is the role of females primary or only assisting?
- c. If applicable, does the female have a personal salary from the sales, or her job is just complementary and considered as an additional chore with no independent income?

7. Historic Transformation:

- a. Did you inherit this occupation from your family?
- b. If yes, how was it different back then compared to now? (Did you increase or decrease the herd size? Did you renew and develop the farm? Grazing land (then and now)? Profit (then and now)? Labor? Other changes?)
- c. If not inherited, why did you choose to go into this sector?
- d. In your opinion, what has changed from the past, several decades ago? (Political, economic, social, regulatory, etc)

III. Farming Info

1. What is the size of your herd?
2. If applicable, do you have any other type of animal on the farm? Size?
3. a. What is the quantity of milk per day per goat?
b. Do you sell all the gathered milk each day? If not, what do you do with the rest?
c. To whom do you sell your milk (eg. direct customers, retailer, milk collector, processing unit)? For what price? (Indicate the different prices if sold to different clients)
4. Compared to previous years have your herd size and milk production increased, decreased, or remained unchanged? Explain choice.
5. Do you own any assets (milk coolers, refrigerated or non-refrigerated vehicle, or other)?

IV. Economic Info

1. What is your monthly overall household income range:

- < 1,000,000 LBP
- 1,000,000 < x < 2,000,000 LBP
- 2,000,000 < x < 3,000,000 LBP
- > 3,000,000 LBP

2. a. What are your major farming expenses? Please rank them. (eg. feed, vaccines, labor, rent, other)

- b. How do you pay to suppliers? (on spot, lump sum, account payable, etc)
- c. Did it ever happen that you weren't able to pay? What did you do?

3. Where do you spend most of your revenue; please explain your revenue utilization? (eg. household expenditure, investment in farm, savings, buying assets, other)

4. If you need money, where do you go? What is the current social system or informal social model?

5. a. In your area, do you have any form of coop, local syndicate, or informal union that assists in production, distribution, sales, etc?

- b. To what extent is the government assisting this sector in your area? NGOs?
- c. In your area, is there enough grazing land to suffice the herd's need? Do you pay rent or open rangelands? Do you rely heavily on feed?

6. a. In your opinion, is there enough demand for goat milk and goat dairy products? Has demand increased, decreased, or remained unchanged compared to previous years? Explain

- b. Seeing that the trend nowadays is "organic" and natural products, do you think there will be more demand for natural fresh milk and artisanal dairy products in the future?

7. What do you consider as challenges to this sector? (economic, social, regulatory, other) **PLEASE ELABORATE**

8. a. What would you consider as opportunities or potential opportunities for this sector?

- b. In your opinion, what can be done to encourage goat farming and processing from supply side, and goat milk and dairy consumption from demand side? **PLEASE ELABORATE**

V. Microfinance

1. Do you rely on financial help? If yes, from whom or where? (MoA, NGOs, COOPs, etc)
2. Are you aware of financial options available such as Micro loans? If yes, what do you know about those programs?
3. Did you ever take a microloan? If yes, move on to next questionnaire.
4. a. Would you consider taking a loan in the future?
 - b. If yes, for what purpose? What encourages you to take a microloan? Under what conditions, if any, would you consider taking a loan? (from social aspect, demand aspect, loan condition aspect, other)
 - c. If not, why?

APPENDIX II

GOAT FARMER QUESTIONNAIRE IN ARABIC

I. معلومات شخصية		
3. العمر	2. <input type="checkbox"/> 0 ذكر <input type="checkbox"/> 1 أنثى	1. منطقة: 0 الشوف 1 البقاع الغربي
6. مستوى التعليم <input type="checkbox"/> 0 لا يقرأ ولا يكتب <input type="checkbox"/> 1 يقرأ ويكتب (لكن غير متعلم) <input type="checkbox"/> 2 ابتدائية (حتى الشهادة) <input type="checkbox"/> 3 متوسطة (حتى brevet) <input type="checkbox"/> 4 الثانوية <input type="checkbox"/> 5 جامعة <input type="checkbox"/> 6 دراسات عليا	5. عدد الأسرة او الأعضاء التابعة	4. الحالة الاجتماعية <input type="checkbox"/> 0 أعزب <input type="checkbox"/> 1 متزوج <input type="checkbox"/> 2 أرمل / مطلق

II. معلومات اجتماعية
<p>1. هل أن تربية الماعز المصدر الرئيسي لدخلكم؟ إذا كان الجواب بالنفي، أي مهنة تؤمن لكم دخلاً آخر؟</p> <p>2. هل تنتجون منتجات الألبان الماعز؟ إذا كانت الإجابة بنعم، هل هي معروضة للبيع أم هي فقط للاستهلاك الشخصي؟</p> <p>3. ما هو معدل نسبة مساهمة دخل الماعز في دخل الأسرة؟ (حدد بشكل منفصل نسبة الدخل الناتج عن الرعي و الدخل الناتج عن منتجات الحليب، إذا وجد)</p> <p>4. أين تقع المزرعة ، بجانب منزلك أو منطقة مخصصة للمزارعين؟ هل المزرعة ملكك أم تستأجرها؟ إذا كان بالإيجار، يرجى تقديم التفاصيل.</p> <p>5. الزراعة والبنية المنزلية:</p> <p>أ. من الذي يساعد بشكل أساسي في العمل الزراعي، إن وجد [على سبيل المثال. الزوج / الزوجة، الأبناء، الأهل، العمال بأجر (لبناني أو غيره)]؟</p> <p>ب. إن أمكن، من يقوم بإنتاج منتجات الألبان؟</p> <p>ج. إن أمكن، هل يهتم أولادك بالعمل في هذا القطاع؟</p> <p>د. بشكل عام، برأيك، هل تعتبر أن تربية الماعز (والإنتاج منتجات الحليب إن وجدت) مهنة عائلية؟</p>

6. ديناميات الاجتماعي:

- أ. برأيك، هل ترى أن هناك أدوار محددة للذكور وأدوار للإناث في هذا القطاع؟
- ب. إذا كان ذلك قابلاً للتطبيق، فهل دور الإناث أساسي أم مساعدة فقط؟
- ج. إذا كان ذلك ممكناً، هل تحصل الأنثى على راتب شخصي من المبيعات، أم أن وظيفتها مساهمة وتعتبر واجبة إضافية بدون دخل مستقل؟

7. التحول التاريخي:

- أ. هل ورثت هذه المهنة من عائلتك؟
- ب. إذا كانت الإجابة بنعم، كيف كان الأمر مختلفاً في ذلك الوقت مقارنةً بالآن؟ (هل قمت بزيادة أو تقليل حجم القطيع؟ هل قمت بتجديد وتطوير المزرعة؟ أرض الرعي (آنذاك والآن)؟ الربح (آنذاك والآن)؟ العمال؟ تغييرات أخرى؟
- ج. إذا لم تكن موروثاً، لماذا اخترت الدخول في هذا القطاع؟
- د. برأيك، ما الذي تغير من الماضي، منذ عدة عقود؟ (سياسياً، اقتصادياً، اجتماعياً، تنظيمياً، إلخ)

III. معلومات الزراعة

1. ما هو حجم قطيعك؟
2. إذا كان ذلك ممكناً، هل لديك أي نوع آخر من الحيوانات في المزرعة؟ عدد؟
3. أ. ما هو معدل كمية الحليب في اليوم لكل ماعز؟
ب. هل تؤمن ببيع الحليب المحلوب كل يوم؟ إذا لم يكن كذلك، كيف تصرف المنتج الباقي؟
ج. إلى من تبيع الحليب (على سبيل المثال، المستهلكين المباشرين، بائع التجزئة، جامع الحليب، وحدة المعالجة)؟ ما ثمن الكيلو؟ (حدد الأسعار المختلفة إذا تم بيعها للمستهلكين المختلفين)
4. مقارنةً بالسنوات السابقة، هل زاد حجم القطيع وإنتاج الحليب لديك أم انخفض أم ظل دون تغيير؟ اشرح الاختيار
5. هل تملك أي أصول (مبردات الحليب، أو السيارة المبردة أو غير المبردة، أو غيرها)؟

VI. المعلومات الاقتصادية

1. ما هو دخل الأسرة الشهري الإجمالي:
 < 1,000,000 LBP
 1,000,000 < x < 2,000,000 LBP
 2,000,000 < x < 3,000,000 LBP
 > 3,000,000 LBP
2. أ. ما هي النفقات الزراعية الرئيسية؟ يرجى ترتيبها. (على سبيل المثال: الأعلاف، اللقاحات، العمالة، الإيجار، وغيرها)
ب. كيف تدفع للموردين؟ (على الفور، مبلغ مقطوع، حساب مستحق، إلخ)

ج. هل حدث ذلك ولم تكن قادرًا على الدفع؟ ماذا فعلت؟

3. أين تنفق معظم إيراداتك ؛ يرجى توضيح استخدام إيراداتك بالترتيب؟ (على سبيل المثال، إنفاق الأسرة، أو الاستثمار في المزرعة، أو المدخرات، وشراء الأصول، وغيرها)

4. إذا كنت بحاجة إلى المال ، فأين تذهب؟

5. أ. في منطقتك، هل لديك أي شكل من أشكال تعاونيات، أو نقابة محلية، أو اتحاد غير رسمي تساعد في

احتياجات الإنتاج الخاصة بك (والتوزيع والتعبئة والمبيعات، وما إلى ذلك)؟

ب. إلى أي مدى تساعد الحكومة هذا القطاع في منطقتك؟ المنظمات غير الحكومية؟

ج. في منطقتك، هل توجد أراضي رعي كافية تكفي حاجة القطيع؟ هل تدفع الإيجار أو أراضي مفتوحة؟ هل تعتمد اعتمادا كبيرا على التغذية؟

6. أ. في رأيك، هل هناك ما يكفي من الطلب على حليب الماعز ومنتجات الألبان الماعز؟ هل زاد الطلب أو

انخفض أم ظل دون تغيير مقارنة بالسنوات السابقة؟ اشرح

ب. بالنظر إلى أن الاتجاه في الوقت الحاضر هو منتجات طبيعية، هل تعتقد أنه سيكون هناك المزيد من

الطلب على الحليب الطبيعي الطازج ومنتجات الألبان الحرفية في المستقبل؟

7. ما الذي تعتبره تحديات لهذا القطاع؟ (الاقتصادية والاجتماعية والتنظيمية وغيرها) يرجى تفصيلها

8. أ. ما الذي تعتبره فرصًا أو فرصًا محتملة لهذا القطاع؟

ب. برأيك، ما الذي يمكن فعله لتشجيع تربية الماعز وإنتاج منتجات الألبان من جانب العرض، وحليب

الماعز واستهلاك الألبان من جانب الطلب؟ يرجى تفصيل

V. التمويل

1. هل تعتمد على المساعدة المالية؟ إذا كانت الإجابة بنعم، من أي مصدر المعتمد؟ (وزارة الزراعة، المنظمات غير الحكومية، تعاونيات، إلخ)

2. هل أنت على علم بالخيارات المالية المتاحة مثل القروض الصغيرة؟ إذا كانت الإجابة بنعم، ماذا تعرف عن هذه البرامج؟

3. هل سبق لك أن أخذت القروض الصغيرة؟ إذا كانت الإجابة بنعم، فانتقل إلى الاستبيان التالي.

4. أ. هل هناك احتمال بأن تأخذ قرض في المستقبل؟

ب. إذا كانت الإجابة بنعم، لأي غرض؟ ما الذي يشجعك على أخذ قرض صغير؟ تحت أي شروط، إن

وجدت، تفكر في أخذ قرض؟ (من الجانب الاجتماعي، جانب الطلب، جانب شروط القرض، أخرى)

ج. إذا لم يكن كذلك، لماذا؟

APPENDIX III

GOAT DAIRY PROCESSOR QUESTIONNAIRE IN ENGLISH

I. Personal Info		
<p>1. Area:</p> <p>0 <input type="checkbox"/> Shouf 1 <input type="checkbox"/> WB</p>	<p>2. Gender</p> <p>0 <input type="checkbox"/> Male 1 <input type="checkbox"/> Female</p>	<p>3. Age</p>
<p>4. Social Status</p> <p>0 <input type="checkbox"/> Single 1 <input type="checkbox"/> Married 2 <input type="checkbox"/> Widowed/Separated</p>	<p>5. Number of Dependents (family members that are financially dependent on you)</p>	<p>6. Level of Education</p> <p>0 <input type="checkbox"/> Illiterate 1 <input type="checkbox"/> Reads & writes (no schooling) 2 <input type="checkbox"/> Elementary (till Certificate) 3 <input type="checkbox"/> Intermediate (till Brevet) 4 <input type="checkbox"/> High school 5 <input type="checkbox"/> University 6 <input type="checkbox"/> Postgraduate</p>

II. Social Info
<p>1. Is goat dairy processing your primary source of income? If no, please specify other occupation.</p> <p>2. Do you also herd goats? If yes, indicate size of herd.</p> <p>3. On average, what is the % contribution of goat income to the household income? (specify separately if herding or processing when applicable)</p> <p>4. Where do you process your milk? (home, small dairy unit, etc)</p> <p>5. Farming and Household Structure:</p> <p style="margin-left: 20px;">a. Who mainly assists in processing work, if any [eg. spouse, children, parents, paid labor (Lebanese or Other)]?</p> <p style="margin-left: 20px;">b. If applicable, who does the farming?</p> <p style="margin-left: 20px;">c. If applicable, are your children interested in working in this sector?</p> <p style="margin-left: 20px;">d. In general, in your opinion do you consider processing (along with farming if applicable) as a family business and activity?</p>

6. Gender Dynamics:

- a. In your opinion, do you see that there are specific roles for males and roles for females in the production value chain?
- b. If applicable, is the role of females primary or only assisting?
- c. If applicable, does the female have a personal salary from the sales, or her job is just complementary and considered as an additional chore with no independent income?

7. Historic View:

- a. Did you inherit this occupation from your family?
- b. If yes, how was it different back then compared to now? (Did you increase or decrease the herd size? Did you renew and develop the farm? Tools and ingredients (then and now)? Profit (then and now)? Labor? Other changes?
- c. If not inherited, why did you choose to go into this sector?
- d. In your opinion, what has changed from the past, several decades ago? (Political, economic, social, regulatory, etc)

III. Processing Info

- 1. What are the types of dairy products that you process and quantity per season (goat milk availability season = yearly)?
- 2. a. To whom do you sell your products (eg. direct customers, retailer, milk collector, processing unit)? For what price? (Indicate the different prices if sold to different clients)
 - b. Based on what criteria do you determine the size of your production? (production based on prior demand of clients, availability of milk, availability of space and tools, etc)
- 3. From whom do you buy your milk, if applicable, and for what price?
- 4. Compared to previous years have your production increased, decreased, or remained unchanged? Explain choice.
- 5. Do you own any assets (processing unit, machinery, refrigerated or non-refrigerated vehicle, or other)?

IV. Economic Info

1. What is your monthly overall household income range:

- < 1,000,000 LBP
- 1,000,000 < x < 2,000,000 LBP
- 2,000,000 < x < 3,000,000 LBP
- > 3,000,000 LBP

2. a. What are your major production expenses? Please rank them. (eg. Milk cost, ingredients, packaging, energy, labor, rent, other)

- b. How do you pay to suppliers? (on spot, lump sum, account payable, etc)
- c. Did it ever happen that you weren't able to pay? What did you do?

3. Where do spend most of your revenue; please explain your revenue utilization? (eg. household expenditure, investment in farm, savings, buying assets, other)

4. If you need money, where do you go? What is the current social system or informal social model?

5. a. In your area, do you have any form of coop, local syndicate, or informal union that assists in your production needs (production, distribution, packaging, sales, etc)?

- b. To what extent is the government assisting this sector in your area? NGOs?

6. a. In your opinion, is there enough demand for goat milk and goat dairy products? Has demand increased, decreased, or remained unchanged compared to previous years? Explain

b. Seeing that the trend nowadays is "organic" and natural products, do you think there will be more demand for natural fresh milk and artisanal dairy products in the future?

7. What do you consider as challenges to this sector? (economic, social, regulatory, other) **PLEASE ELABORATE**

8. a. What would you consider as opportunities or potential opportunities for this sector?

b. In your opinion, what can be done to encourage goat farming and processing from supply side, and goat milk and dairy consumption from demand side? **PLEASE ELABORATE**

V. Microfinance

1. Do you rely on financial help? If yes, from whom or where? (MoA, NGOs, COOPs, etc)
2. Are you aware of financial options available such as Micro loans? If yes, what do you know about those programs?
3. Did you ever take a microloan? If yes, move on to next questionnaire.
4. a. Would you consider taking a loan in the future?
 - b. If yes, for what purpose? What encourages you to take a microloan? Under what conditions, if any, would you consider taking a loan? (from social aspect, demand aspect, loan condition aspect, other)
 - c. If not, why?

APPENDIX IV

GOAT DAIRY PROCESSOR QUESTIONNAIRE IN ARABIC

I. معلومات شخصية		
3. العمر	2. 0 <input type="checkbox"/> ذكر 1 <input type="checkbox"/> أنثى	1. منطقة: 0 الشوف 1 البقاع الغربي
6. مستوى التعليم 0 <input type="checkbox"/> لا يقرأ ولا يكتب 1 <input type="checkbox"/> يقرأ ويكتب (لكن غير متعلم) 2 <input type="checkbox"/> ابتدائية (حتى الشهادة) 3 <input type="checkbox"/> متوسطة (حتى brevet) 4 <input type="checkbox"/> الثانوية 5 <input type="checkbox"/> جامعة 6 <input type="checkbox"/> دراسات عليا	5. عدد الأسرة أو الأعضاء التابعة	4. الحالة الاجتماعية 0 <input type="checkbox"/> أعزب 1 <input type="checkbox"/> متزوج 2 <input type="checkbox"/> أرمل / مطلق

II. معلومات إجتماعية
<p>1. هل أن إنتاج منتجات الماعز المصدر الرئيسي لدخلكم؟ إذا كان الجواب بالنفي، أي مهنة تؤمن لكم دخلاً آخر؟</p> <p>2. هل تقوم بتربية الماعز أيضاً؟ إذا كانت الإجابة بنعم، ما هو حجم القطيع؟</p> <p>3. ما هو معدل نسبة مساهمة دخل الماعز في دخل الأسرة؟ (حدد بشكل منفصل نسبة الدخل الناتج عن الرعي والدخل الناتج عن منتجات الحليب، إذا وجد)</p> <p>4. أين تصنع منتجات ألبان الماعز؟ (المنزل، وحدة الألبان الصغيرة، إلخ)</p> <p>5. الزراعة والبنية المنزلية:</p> <p>أ. من الذي يساعد بشكل أساسي في التصنيع، إن وجد [على سبيل المثال. الزوج / الزوجة، الأبناء، الأهل، العمال بأجر (لبناني أو غيره)]؟</p> <p>ب. إن أمكن، من يقوم بتربية الماعز؟</p> <p>ج. إن أمكن، هل يهتم أولادك بالعمل في هذا القطاع؟</p> <p>د. بشكل عام، برأيك، هل تعتبر أن تربية الماعز (والإنتاج منتجات الحليب إن وجدت) مهنة عائلية؟</p>

6. ديناميات الاجتماعي:

- ا. برأيك، هل ترى أن هناك أدوار محددة للذكور وأدوار للإناث في هذا القطاع؟
- ب. إذا كان ذلك قابلاً للتطبيق، فهل دور الإناث أساسي أم مساعدة فقط؟
- ج. إذا كان ذلك ممكناً، هل تحصل الأنثى على راتب شخصي من المبيعات، أم أن وظيفتها مساهمة وتعتبر واجبة إضافية بدون دخل مستقل؟

7. التحول التاريخي:

- ا. هل ورثت هذه المهنة من عائلتك؟
- ب. إذا كانت الإجابة بنعم، كيف كان الأمر مختلفاً في ذلك الوقت مقارنةً بالآن؟ (هل قمت بزيادة أو تقليل حجم القطيع؟ هل قمت بتجديد وتطوير المزرعة؟ الأدوات والمكونات (آنذاك والآن)؟ الربح (آنذاك والآن)؟ العمال؟ تغييرات أخرى؟
- ج. إذا لم تكن موروثة، لماذا اخترت الدخول في هذا القطاع؟
- د. برأيك، ما الذي تغير من الماضي، منذ عدة عقود؟ (سياسياً، اقتصادياً، اجتماعياً، تنظيمياً، إلخ)

III. معلومات الزراعة

1. ما هي أنواع منتجات الألبان التي تصنعها والكمية في الموسم الواحد (موسم توافر حليب الماعز = سنوياً)؟
2. أ. إلى من تبيع منتجاتك (على سبيل المثال، مستهلكين المباشرين، بائع التجزئة، جامع الحليب، وحدة المعالجة)؟ ما هو الثمن؟ (حدد الأسعار المختلفة إذا تم بيعها لمستهلكين مختلفين)
ب. بناءً على أي معيار تحدد حجم إنتاجك؟ (الإنتاج يعتمد على الطلب المسبق للمستهلكين، أو توافر الحليب، أو توافر المساحات والأدوات، إلخ)
3. من من تشتري الحليب، إن أمكن، وبأي ثمن؟
4. مقارنة بالسنوات السابقة، هل زاد إنتاجك، انخفض أم ظل دون تغيير؟ اشرح الاختيار
5. هل تملك أي أصول (وحدة المعالجة، الآلات، السيارة المبردة أو غير المبردة، أو غيرها)؟

VI. المعلومات الاقتصادية

1. ما هو دخل الأسرة الشهري الإجمالي:
 <1,000,000 LBP
 1,000,000 <x> 2,000,000 LBP
 2,000,000 <x> 3,000,000 LBP
 > 3,000,000 LBP
2. أ. ما هي النفقات الإنتاج الرئيسية؟ يرجى ترتيبها. (على سبيل المثال. تكلفة الحليب، المكونات، التغليف، الطاقة، العمالة، الإيجار، أخرى)
ب. كيف تدفع للموردين؟ (على الفور، مبلغ مقطوع، حساب مستحق، إلخ)

ج. هل حدث ذلك ولم تكن قادرًا على الدفع؟ ماذا فعلت؟

3. أين تنفق معظم إيراداتك ؛ يرجى توضيح استخدام إيراداتك بالترتيب؟ (على سبيل المثال، إنفاق الأسرة، أو الاستثمار في المزرعة، أو المدخرات، وشراء الأصول، وغيرها)

4. إذا كنت بحاجة إلى المال ، فأين تذهب؟

5. أ. في منطقتك، هل لديك أي شكل من أشكال تعاونيات، أو نقابة محلية، أو اتحاد غير رسمي تساعد في احتياجات الإنتاج الخاصة بك (والتوزيع والتعبئة والمبيعات، وما إلى ذلك)؟
ب. إلى أي مدى تساعد الحكومة هذا القطاع في منطقتك؟ المنظمات غير الحكومية؟

6. أ. في رأيك، هل هناك ما يكفي من الطلب على حليب الماعز ومنتجات الألبان الماعز؟ هل زاد الطلب أو انخفض أم ظل دون تغيير مقارنة بالسنوات السابقة؟ اشرح
ب. بالنظر إلى أن الاتجاه في الوقت الحاضر هو منتجات طبيعية، هل تعتقد أنه سيكون هناك المزيد من الطلب على الحليب الطبيعي الطازج ومنتجات الألبان الحرفية في المستقبل؟

7. ما الذي تعتبره تحديات لهذا القطاع؟ (الاقتصادية والاجتماعية والتنظيمية وغيرها) يرجى تفصيلها

8. أ. ما الذي تعتبره فرصًا أو فرصًا محتملة لهذا القطاع؟
ب. برأيك، ما الذي يمكن فعله لتشجيع تربية الماعز وإنتاج منتجات الألبان من جانب العرض، وحليب الماعز واستهلاك الألبان من جانب الطلب؟ يرجى تفصيل

7. التمويل

1. هل تعتمد على المساعدة المالية؟ إذا كانت الإجابة بنعم، من أي مصدر المعتمد؟ (وزارة الزراعة، المنظمات غير الحكومية، COOPs، إلخ)

2. هل أنت على علم بالخيارات المالية المتاحة مثل القروض الصغيرة؟ إذا كانت الإجابة بنعم، ماذا تعرف عن هذه البرامج؟

3. هل سبق لك أن أخذت القروض الصغيرة؟ إذا كانت الإجابة بنعم، فانتقل إلى الاستبيان التالي.

4. أ. هل هناك احتمال بأن تأخذ قرض في المستقبل؟

ب. إذا كانت الإجابة بنعم، لأي غرض؟ ما الذي يشجعك على أخذ قرض صغير؟ تحت أي شروط، إن وجدت، تفكر في أخذ قرض؟ (من الجانب الاجتماعي، جانب الطلب، جانب شروط القرض، أخرى)

ج. إذا لم يكن كذلك، لماذا؟

APPENDIX V

BORROWER INTERVIEW QUESTIONS IN ENGLISH

1. What was the purpose of the loan? (What was your logical trail of thought that led you to seek a microloan)
2. How did you choose this particular institution to lend from?
What was your selection criteria for institution?
How did you hear of this institution?
3. What are the features of this loan program? (Application procedure, Type, rate, conditions, facilities, repayment, etc)
Were you granted as much as you applied for?
4. What was the loan's share of the total budget for the project?
5. What were your expectations and your business plan for spending the loan?
6. How did you actually utilize the loan? Did it go as previously planned?
7. To what extent the loan benefitted you economically, and in what areas (income generation, consumption smoothing, asset buying, other, etc)?
8. What was your repayment strategy? Was it burdensome or easy? Were you able to repay according to plan and on time?
9. How was the treatment and communication of the institution and their follow-up?
10. What were your plans in terms of sustainability after the loan? Were you able to sustain operations?
11. How do you rate this experience? Do you consider it successful? Was the purpose achieved?
12. What are the drawbacks and difficulties from this experience?
13. Would you consider taking another loan in the future? Would you recommend microfinance to others?
14. In your opinion, do you consider microfinance as a development tool that is able to empower farmers?

APPENDIX VI

BORROWER INTERVIEW QUESTIONS IN ARABIC

1. ما هو الغرض من القرض؟ (ما كان مسار التفكير المنطقي الذي دفعك إلى البحث عن قرض صغير)
2. كيف اخترت هذه المؤسسة الخاصة للاقتراض منها؟
ما هي معايير اختيارك للمؤسسة؟
كيف سمعت عن هذه المؤسسة؟
3. ما هي ميزات هذا القرض؟ (إجراءات التقديم، النوع، الفائدة، الشروط، التسهيلات، السداد، إلخ)
هل تم منحك قيمة القرض به كاملاً؟
4. ما هي حصة القرض من إجمالي ميزانية المشروع؟
5. ما هي كانت توقعاتك وخطة عملك لإنفاق القرض؟
6. كيف استخدمت القرض بالفعل؟ هل نفذت مخطط مشروعك حسب البرنامج الذي كنت وضعتة؟
7. إلى أي مدى استفدت من القرض اقتصادياً، وما هي المجالات (زيادة الدخل، وتسهيل الاستهلاك، شراء الأصول، وغيرها)؟
8. ما هي استراتيجية السداد؟ هل كانت صعبة أم سهلة؟ هل كنت قادراً على السداد وفقاً للخطة وفي الوقت المحدد؟
9. كيف تم تعامل المؤسسة وتواصلها ومتابعتها؟
10. ما هي خططك من حيث الاستدامة بعد القرض؟ هل كنت قادراً على مواصلة العمليات؟
11. كيف تقيم هذه التجربة؟ هل تعتبرها ناجحة؟ هل تحقق الهدف؟
12. ما هي الصعوبات التي واجهتها خلال هذه التجربة؟
13. هل تفكر في أخذ قرض آخر في المستقبل؟ هل تنصح الآخرين بالاقتراض من مؤسسات القروض الصغيرة؟
14. برأيك، هل تعتبر القروض الصغيرة أداة تنمية قادرة على تمكين المزارعين؟

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