

Microfinance in Marginal Dry Areas:

Impact of Village Credits and Savings Associations on Poverty in the Jabal al Hoss region in Syria



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Abbreviations

ACB	Agricultural Cooperative Bank
ACU	Agency for Combating Unemployment
ADBP	Agricultural Development Bank of Pakistan
CoBS	Commercial Bank of Syria
FAO	Food and Agriculture Organization of the United Nations
GIS	Geographic Information System
IB	Industrial Bank
ICARDA	International Center for Agricultural Research in the Dry Areas
MAAR	Ministry of Agriculture and Agrarian Reform
MFI	Microfinance Industry
MSME	Micro-, Small-, and Medium-Enterprise
NGO	Non-Governmental Organization
PC	Principle Component
PCA	Principle Component Analysis
PCB	People's Credit Bank
PPS	Probability Proportional to Size
RCDP	Rural Community Development Project
REB	Real Estate Bank
SP	Syrian Pounds (US\$1 = SP51.5)
SPSS	Statistics program used for data analysis of this study
UNDP	United Nations Development Program

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Summary

Considering the first nine sanadiq (Village Savings- and Credit-associations) established in September 2000 in the Jabal al Hoss region of northern Syria, this report evaluates their impact on the rural poor until the end of 2003. Using Principle Component Analysis, a household specific poverty index is calculated. This index shows that only about 40% of sanduq members belong to either the Poorest or the Poor categories and more than 60% to the Less Poor. This is mainly due to a biased selection of villages. None of the first nine sanadiq was established in a village with a village index below four indicating that small villages with little public services were excluded from the microfinance program.

Unlike formal credit institutions, sanadiq can reach the poorest that otherwise have to rely on informal moneylenders with average interest rates of 77% per year. However, the presence of a sanduq in a village did not lead to a reduction of informal money borrowed. In the three year period considered in this study, it is not possible to show a significant increase in assets or income for sanduq members compared to non-member households from the same villages. However, when compared to the control households, those households from villages with a sanduq show increased assets and a slightly higher income. It is difficult to completely attribute this increased economic status to the presence of a sanduq. It could also be as a result of the training courses provided by the RCDP to the same villages and/or the better infrastructure available in these villages before the sanadiq were established.

1 Introduction

Microfinance has been recognized globally as a powerful tool for alleviating poverty, raising living standards, creating jobs, and boosting economic growth (Brandsma and Chaouali, 1998). Savings and credit facilities can help to make lumpy investments affordable and allocate resources to potential investments with the highest returns. Indeed, the central role financial systems play in most economic activities make them an essential component of development, and the depth of the financial sector is an excellent predictor of long-term economic growth (Yaron, 1997).

In order to achieve the above-mentioned benefits, some major challenges for rural microfinance have to be overcome. Characteristics such as low population density, isolated markets, highly covariant risk, and seasonality often result in high transaction cost, lack of traditional collateral, high income fluctuations and limited opportunities for risk diversification.

As the following examples show, these difficulties can be dealt with through microcredit institutions.

- Findings from three Bangladeshi microcredit institutions prove that microcredit programs attack poverty at its source by increasing the household consumption expenditure of participants. Borrowing from a program is estimated to reduce moderate poverty among participants by as much as 20 percent and extreme poverty by as much as 22 percent. This means that as much as 5 percent of program-participating households should be able to lift

their families out of poverty every year by borrowing from a microcredit program (Khandker, 1998 in Daley-Harris, 2002).

- CRECER, a Bolivian microfinance NGO with 30,000 borrowers, had 73 percent of their entering clients living below the national poverty line and 41 percent living at or less than \$1 a day. More than 65 percent of CRECER clients reported an increase in income, 41 percent increased household assets (primarily the purchase of animals), 86 percent increased their cash savings, and the organization reached 100 percent financial self-sufficiency (Simanowitz 2002).

Similar results have been found by Simanowith (2002), and Binswanger and Khandker (1995) in India, and Khandker and Faruquee (2002) in Pakistan. In this research report poverty outreach and the impact of the Rural Community Development Project (RCDP) of the UNDP and the Syrian Ministry of Agriculture and Agrarian Reform (MAAR) in Jabal al Hoss are analyzed. A description about the features of microfinance in the Middle East and in Syria is presented in Annex 1. The features of the Jabal al Hoss region and a brief introduction to the RCDP are given in Annex 2.

2 Hypothesis and Objectives

Hypothesis

“The provision of microfinance services through the sanduq system has a positive impact on the livelihoods of the households through changes in income and income generating activities, assets, and its livelihood strategy. This impact is different for households with different characteristics and there is also an impact on the credit market in general.”

Objectives

The objective of this research report is to show the impact of this kind of microfinance programs on poverty or on the poorest. The impact on income and income generation activities, on physical and human capital, on characteristics of the households, and on the credit market in general are investigated. In addition to that, an analysis to determine which kind of household profits most from the offered microcredits and which kind of household still does not get access to formal credit even if a sanduq has been established in the village of their residence, will be carried out.

3 Methodology

After an in-depth secondary data analysis, the work in the field could be planned. For the calculation of a household specific poverty index, the methodology of Henry et al. (2000) was adapted. In order to develop a detailed work plan and the questionnaire for the formal survey, several informal interviews with key informants from various villages, government banks, and other existing microfinance institutions, were conducted.

The formal survey contained two parts. In the first part, some demographic data was collected in order to be able to group the results and measure the outreach of poverty. Furthermore, questions about education, household composition, food security, and available infrastructure were asked in order to quantify probable selection bias. The second part then focused on the microfinance. The conditions of the credit, what it was used for, the changes it has induced in income, assets or business orientation were investigated. The sampling and response unit of study is an individual household. A household is defined as a group of people within the same household economy, eating from the same pot.

3.1 Sampling

Agricultural Settlement Zones

The Ministry of Agriculture and Agrarian Reform of Syria (2002) has classified Syria into 5 different agricultural settlement zones. Zone 1 receives the highest amount of precipitation; zone 5 gets the least (see Annex 3). This classification is important in terms of cropping patterns, limitations for irrigation and digging new wells as well as credit provision for agricultural activities.

Sampling Frame

The over-all sampling frame of the study contains all the households in the region of Jabal al Hoss, covering villages lying in the agricultural settlement zones 2, 3 and 4. This includes 156 villages with about 27,000 households (UNDP, 2000).

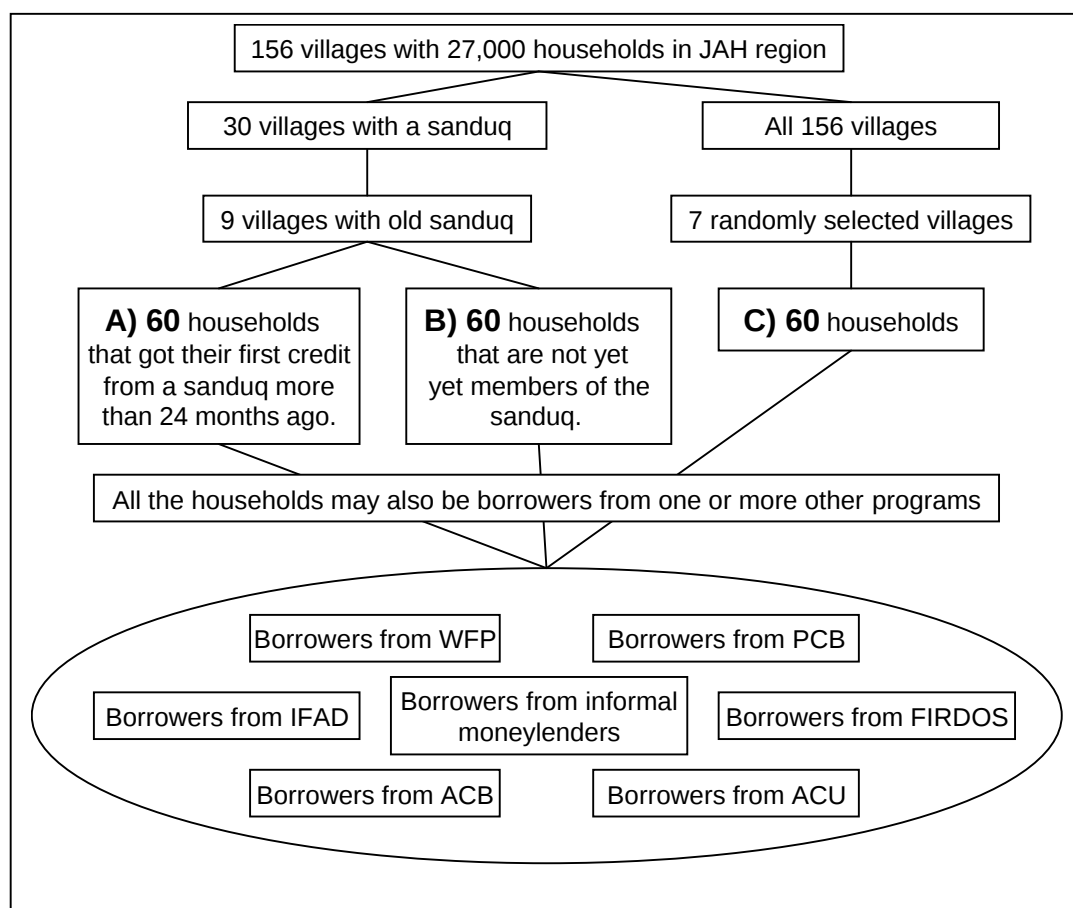


Figure 1: Sampling design

In order to be able to analyze the impact of borrowing money from a sanduq, a sub-sampling frame, consisting of the 9 villages with an old sanduq (established in September 2000), was constructed. From these 9 villages - one in zone 2, five in zone 3 and three in zone 4 – 60 households that borrowed money either in the year 2000 or 2001 were selected

(Group A). These households were compared to 60 households from the same 9 villages that were not members of the sanduq in January 2004 (Group B). They were also compared to 60 Control-households that were selected from 7 randomly selected villages (Group C).

3.1.1 Sampling of Randomly Selected Villages

In the year 2000, the Rural Community Development Project (RCDP) conducted a socioeconomic study of the area of Jabal al Hoss (UNDP, 2000). For this study, key individuals from all the villages in the area were interviewed in order to create a database of detailed information about each village. The selection of the villages was done using this database.

Stratification

In order to represent the high variation of public services that are available in several villages, but not in others, the sample was stratified using a point system. One point was given for each of the following services available in the village: Elementary schools (years 1-6), Preparatory schools (years 7-9), Secondary schools (years 10-12), Women's union, Grocery store, if more than 50% of the people have own water, Consumptive institution, Peasants' society, Municipality, Fattening society, Electricity, Phone, Multi-purpose society, and a paved road to reach the village. In theory, a village could attain a maximum of 14 points, however, in reality the highest score was only 11 points.

Using this method, the villages were stratified into three score-groups. The first group of villages are the ones with few infrastructure (0-3 points), the second with medium infrastructure (4-7 points), and the third with good infrastructure (8-11 points).

In order to have a weighted distribution of the 60 households to the three categories, the number of households per score-group was chosen proportional to the number of households in the group. In the score-groups 0-3 and 8-11, two villages, and in the group 4-7, the biggest group, three villages were selected.

Table 1: Selected villages per stratification group according to available public services

Category	Score of available infrastructure	Agricultural settlement zone	Number of families
Good infrastructure (8-11 points)			
Hajeb	8	3	700
Tal Shegheb	9	2	650
Medium infrastructure (4-7 points)			
Kafr Abeed	7	2	175
Smad	4	4	160
Hokla	5	4	175
Few infrastructure (0-3 points)			
Mesiadeh	1	3	13
Jeb Jasem	1	4	23

Source: Database of UNDP (2000)

The actual sampling of the villages was done in the Probability Proportional to Size (PPS) mode, which is a self-weighting sampling design. In order to do this, the number of families for each score-group was cumulated in a separate row from which the selection was finally made. The selection was done with random digits from Frankfort-Nachmias and Nachmias (1996). The selected villages are presented in Table 1.

3.1.2 Sampling of Households in the Randomly Selected Villages

In order to be able to select the desired number of households randomly, lists of households from the selected villages had to be found or constructed. As each village has different sizes and different facilities, a separate way of obtaining a list of the households present had to be found. The detailed sampling for each village is described in Annex 4. After drawing up the lists, the random selection of households was always done using the table of random digits in Frankfort-Nachmias and Nachmias (1996).

3.1.3 Sampling of Villages with a Sanduq

In order to have both households that borrowed from a sanduq for the first time in the years 2000/2001 and households from the same villages that were not yet members of the sanduq, only the nine villages with a sanduq that was established at least 3 years ago were taken into account. Considering the low number of villages, a weighted number of households from each village was selected.

3.1.4 Sampling of Households in the Villages with Sanduq

For the sanduq members (Group A), the selection of households was done using RCDP lists. A direct selection using the lists could not be made because these lists contain individual borrowers, not households, and it was not possible to determine which borrowers belong to the same household. For this reason, the selection of households was done by selecting individual members of the households as follows:

1. The required number of households was selected from the list of individuals with the help of a list of random digits.
2. A reserve number of households were selected just in case they were needed using the same method as in the previous point.
3. Whether one of the selected individual borrowers belonged to the same household as a previously interviewee was always checked during the interview. If this was the case, the first reserve borrower from the list was interviewed. To avoid any biases, the selected individuals were interviewed in the order they were selected with the random digits.

For each of the two groups mentioned above, the number of households selected per village was proportional to the total number of households in the corresponding group in the village. Table 2 and Table 3 illustrate this.

Table 2: Households that borrowed the first time in the years 2000 or 2001

Village	Total	Selected
Ien Assan	134	11
Bnan	73	6
Al Zarraa	89	7
Al Batrane	98	8
Borj Azzawe	138	11
Maktal al Zide	43	4
Hower al Hoss	43	4
Al Rweheb	54	4
Al Herbakie	71	5
Total	743	60

For Group B, consisting of non-sanduq members, a correction had to be made for the weighted household selection. As seen in Table 3, Bnan, with 148 households that did not belong to a sanduq in January 2004, has by far the most important number of these households. Therefore, a system that does not overvalue any one village needed to be created to give each village equal representation. It was decided that, for all the other villages, the number of households selected was calculated as though the sample consisted of 120 households. Following that, the number of households to select from Bnan was reduced to 21, which would then allow a total of 60 households in the sample.

Table 3: Households that are not yet a member of the sanduq

Village	Total	Selection 60 households	Selection 120 households	Selected
Ien Assan	19	5	9	9
Bnan	148	40	81	21
Al-Zarraa	6	2	3	3
Al-Batrane	20	5	11	11
Borj Azzawe	0	0	0	0
Maktal Al-Zide	2	1	2	2
Hower Al-Hoss	9	2	5	5
Al-Rweheb	6	2	3	3
Al Herbakie	11	3	6	6
Total	221	60	120	60

4 Poverty Index for the Jabal al Hoss Region

The first step in estimating the poverty outreach of a project is to identify the poor. Henry et al. (2000) present an operational method using Principle Component Analysis (PCA), which is based on a range of indicators that describe different dimensions of poverty and provides credible information that can be quickly and inexpensively obtained. According to several case studies using this method and presented in a paper from Zeller et al. (2001), the method has potential for monitoring and evaluating development organizations.

4.1 Methodology

The characteristics of poverty are multidimensional, encompassing various aspects of a household's economic and social status. Capturing these dimensions requires both qualitative and quantitative indicators and constructing a poverty index using PCA can integrate a range of these indicators describing different dimensions of poverty. An advantage in using these indicators is that credible information can be obtained quickly and inexpensively. PCA can assist in identifying and weighing the most important indicators in order to calculate an aggregate index of relative poverty for a specific sample household.

4.1.1 Using Principle Component Analysis to Estimate an Index of Relative Poverty

In the methodology presented by Henry et al. (2000), per capita clothing expenditure was chosen as the benchmark indicator because it was assumed to have a stable and highly linear relationship with total consumption expenditure - a comprehensive and widely accepted

measure of poverty. The benchmark indicator was used later in the PCA as the basic indicator that all the other measured household characteristics are compared to. The ones with the highest correlation to the benchmark indicator were selected to calculate the household specific poverty index.

In a few informal interviews in the project region, it was found that in these communities, per capita clothing expenditures do not differ according to the obvious wealth of the household. Here a study conducted by Glewwe and van der Gaag (1990) provides a useful comparison of different poverty measurements.

Glewwe and van der Gaag argue that per capita consumption, adjusted by household equivalence scales, is a desirable measure of household welfare. They go on to compare various other measurements of poverty such as: per capita income, household consumption, per capita consumption, per capita food consumption, food ratio¹, height for age, weight for height, per capita floor area, and adult school attainment with their favored measurement. They found that, for seven of the above mentioned measurements, the hypothesis of no correlation is rejected by the χ^2 test at the level of 1%. Ranked according to the degree of correlation, the measurements were: per capita consumption, per capita food consumption, per capita income, household consumption, per capita floor area, adult school attainment, and food ratio.

¹ Food ratio is the fraction of the household budget spent on food.

It is obvious from these findings that one should use a consumption measurement to assess the poverty level of a household, as 3 of the 4 most closely related measurements are actually a specific kind of consumption measurement. Unfortunately, due to time constraints, it was not possible to work with any consumption measurement in the study presented here. Glewwe and van der Gaag argue also that it takes at least one year for the reliable collection of data on consumption. Otherwise, seasonal patterns would affect the results too much. For this study, data collection was restricted to 4 months. To recall consumption data is not reliable at all, as most of the time small amounts are bought and consumption in these marginal dry areas is very seasonal. Thus, the best possible measurement of poverty that could be used as the benchmark indicator for the PCA is per capita income that ranked third in the poverty measurement correlation study of Glewwe and van der Gaag. Income data is much easier to recall over a period of one year as it comes in one period of the year in case of agriculture, livestock production, and wage labor (in winter time no work is available), or regularly over a period of time as in the case of government employment or milk production.

Therefore, for this research, per capita income over the period of one year (2003) was used as the benchmark poverty indicator. The argument against using income measurements for wealth categorization in agriculture is that income differs a lot from year to year. However, since the same year was used to categorize all the households, this argument was rendered void. In order to have a very wide range of indicators describing poverty, information for 66 potential indicators, which is presented in Annex 6, was collected.

The PCA extracts underlying components from a set of indicators. In the case of this analysis, information collected from the questionnaires make up the “indicators”, and the underlying component that is isolated and measured is “poverty”. Using the weights that the PCA produced, a household-specific poverty index was computed based on each household’s indicator values (Zeller et al., 2001).

4.1.2 Selection of Indicators for the Jabal al Hoss Region

The application of PCA in this case led to the selection of 12 indicators. The indicators reflect different dimensions of poverty concerning human resources, dwelling, assets, food security and vulnerability. To select these 12 indicators only the 60 completely randomly selected households from the control group were used because only these households represent the general population and are, therefore, appropriate to be used for the initial model.

After running several PCAs, each with a slightly different composition of the indicators, the final composition presented in Table 4 was found.

The number in the Correlation to component column indicates the degree of correlation between the component and the indicator. Large absolute values indicate a high level of correlation, while low numbers indicate a lower level of correlation. To calculate the final version of the component scores all the 180 households were taken into account.

Table 4: Communality coefficients for the selected indicators to per capita income

Indicator	Correlation to component
<u>Human resources</u>	
Number of wage laborers in the household	-0.570
Number of children <16y	-0.383
<u>Dwelling</u>	
Number of persons per room	-0.629
Value of house	0.515
<u>Food and vulnerability</u>	
% food expenditures from the total income	-0.649
Meals with chicken per month in the last year	0.617
Meals with eggs per month in the last year	0.506
<u>Assets</u>	
Total value of assets per person living in the household	0.764
Total value of equipment	0.496
Total irrigated land owned	0.452
Total land owned (ha)	0.420
Total value of livestock	0.341

4.2 Results and Interpretation

To use the poverty index to assess the poverty outreach of the sanadiq, the indices from the year 2000 were used as they do not show the effect the sanadiq may have had on wealth.

First, only the control households were sorted in an ascending order according to their index score. Once sorted, these households were grouped in the “higher” group, the middle third in the “middle” group, and the bottom third in the “lowest” group. Since there were 60 control-households, each group contained 20 households. The cut-off scores for each tercile define the limits of each poverty group as presented in Figure 2.

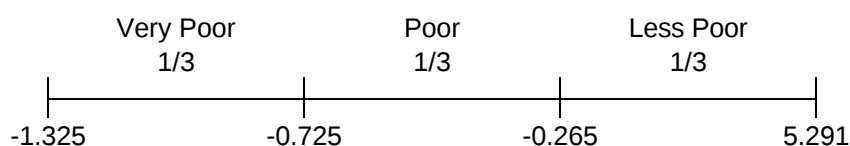


Figure 2: Definition of poverty groups

Borrowers from a sanduq and non-sanduq-members from the same villages were then categorized in the three groups based on their household scores. The percentage distribution from the households that are member of a sanduq and borrowed money from it for the first time either in the year 2000 or 2001 (Members), and the households that have been selected at random (Control), into the three poverty groups can be seen in Figure 3. It is clear that the biggest part of the Members-group (61.7%) belong to the group of the Less poor. While only 16.7% belong to the group of the Poorest, the rest, 21.7% belong to the middle group of the Poor².

This means that the poverty outreach of the sanadiq is quite limited. In defense of the project, it has to be said that the whole project region of Jabal al Hoss has been judged to be one of the poorest in Syria (Omran and Breek (2000) and Seibel (2003)), so even the group of the Less poor will contain a considerable number of poor if other regions in Syria are taken into consideration.

² Aw-Hassan et al. (2002) developed wealth classes representing the perceptions of the people living in the Khanasser valley that overlaps the region of Jabal al Hoss in its South-eastern part. The people's well-being indicators included: natural, physical, financial and human capital (Annex 7), which is consistent with the livelihoods framework developed by Ellis (2000). Using these indicators quite similar results can be found with the poverty index presented here.

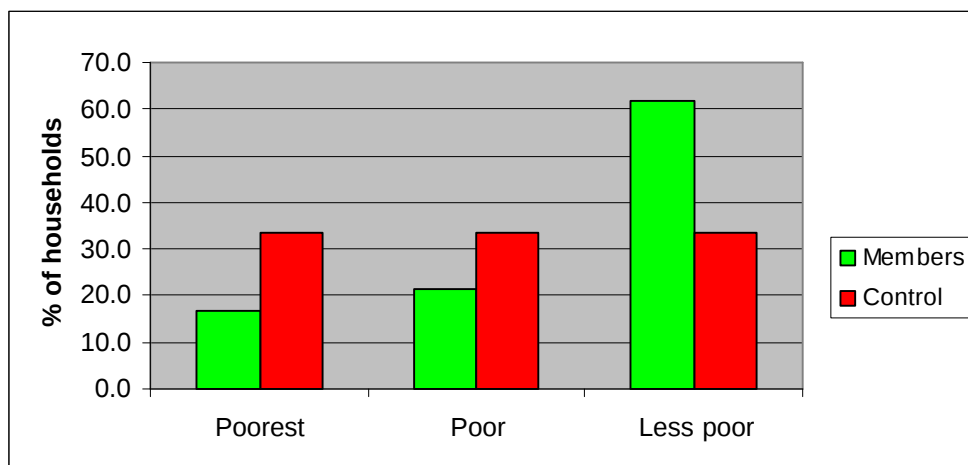


Figure 3: Poverty groups of Members and Control households in 2000

To be able to show the poverty outreach of the sanadiq inside the village, the Members and Non-members are categorized the same way and presented in Figure 4.

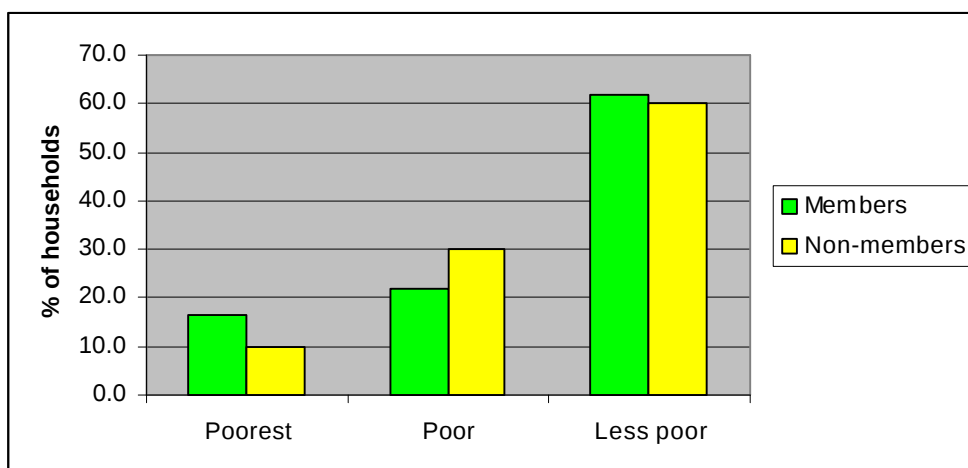


Figure 4: Poverty groups of Members and Non-members households in 2000

Compared to the group of the Non-members, the Members group does not show a very different distribution into the three poverty groups. It even shows that a higher percentage of the poorest are members of the sanduq, while the percentage of households belonging to the Less poor is about the same. These findings lead to the conclusion that there must be an

effect on poverty of the villages that have been selected to have a sanduq at the beginning of the project.

For this comparison, the very simple village index already used for the sampling and explained in chapter 3.1.1 was used.

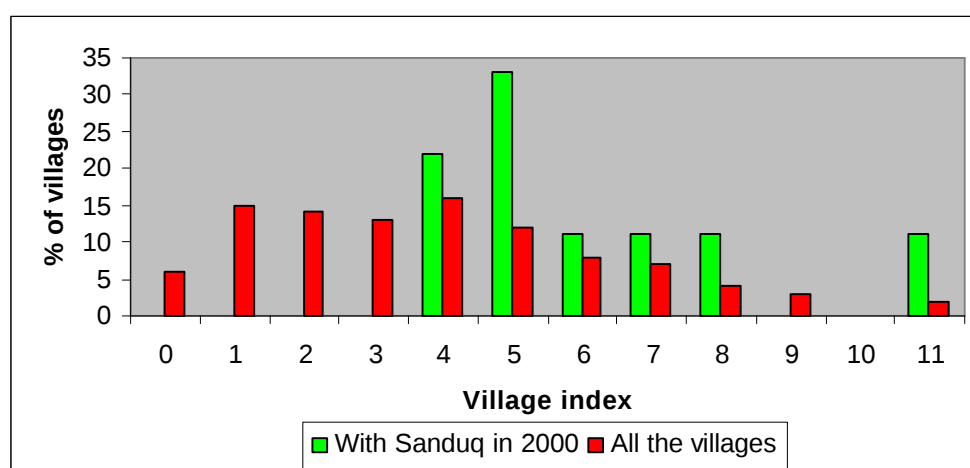


Figure 5: Distribution of the selected villages according to the village index

From Figure 5 it can be seen that from the first 9 Sanduq established none is situated in a village with less than 4 public services available. This means that through the selection of the villages already played a big part in the exclusion of the poor to access to financial services through a sanduq. This is due to internal regulations of the RCDP for including villages in the microfinance program. Only villages with at least 300 inhabitants and a road that ensures accessibility during the whole year have the possibility to establish a sanduq.

5 Impact of the Sanadiq

This report analyses the impact that the 9 sanadiq established in September 2000 had until the end of the year 2003, i.e. over a period of 3 years. The three groups of households that were investigated are:

Members	Households from the 9 villages with a sanduq established in September 2000 that borrowed money from a sanduq in the year 2000 or 2001.
Non-members	Households from the 9 villages with a sanduq established in September 2000 that were not members of the sanduq until January 2004.
Control	Households from 7 randomly selected villages of the whole project region.

Impact of the sanadiq can occur in many different ways, mainly depending on the investment the household chooses with the credit obtained. The different possible impacts of a successful investment with a credit from a sanduq on Gross income, perceived Income change and Assets are displayed in Table 5.

If the credit is invested in inputs for crop or livestock production there is no impact on Gross income as the scale of production stays the same. An increase in Gross income can only be observed if more inputs are bought and thus the production is intensified. There might also be a change in the cost structure as household usually bought the same inputs with informal

credits with much higher interest rates. The purchase of inputs directly used up inputs does also not effect the amount of assets held by the household or only indirect through the purchase of additional assets if the net profit from the activity was increased.

Table 5: Possible impacts of a successful investment from a credit taken from a sanduq

Investment in	Gross income	Income change	Assets
Crop inputs (fertilizer, seeds)	Increase if intensified production	Increase through reduced capital costs	No impact or only indirect
Trees	Increase only after >5 years	Increase only after >5 years, before that drop because of increased capital cost	Increase
Livestock production input (feed)	Increase if intensified production	Increase through reduced capital costs	No impact or only indirect
Livestock for fattening	Increase	Increase	Increase
Livestock for breeding and/or milking	Increase only after 1-2 years	Increase only after 1-2 years, before that drop because of increased capital cost	Increase
Equipment	Increase if rented out or used for wage labor	Increase if rented out or used for wage labor	Increase
Non-agricultural activities ³	Normally direct increase	Normally direct increase	Normally increase

Investments in all the other activities reported in Table 5 effect the amount of assets held directly. Effect on income can be observed either immediately or after a certain period as it is the case for trees or breeding livestock.

³ Non-agricultural activities: investment in shop in the village, in trading activities, in processing activities...

5.1 Characterization of the Members and Borrowers

To determine whether the Members represented an average group of households living in the region before they started to borrow money from a sanduq, they were compared to the other two groups of households, based on their characteristics in the year 2000.

5.1.1 Village Characterization

Probably the most important comparison of the 9 villages that have a sanduq established in September 2000 to all the villages of the project region was presented in chapter 4.2. There the major conclusion was that these nine villages have better infrastructure than 48% of the villages in the region. These 48% of the villages (76 villages of the total of 156 villages) in the region host 19% of the total population in the region.

This village selection is a result of the RCDP's policy to only work with villages that have at least 300 inhabitants and an all year round accessible road. Knowing from the findings in chapter 4.2 that a big part of the group of the Poorest live in these villages, a large number of these households are already excluded from getting access to financial services through a sanduq. So care has to be taken when interpreting the impact of the sanduq, as the households that are a member of a sanduq already present a less poor section of the total population.

5.1.2 Household Characterization

Following Chayanov's model, the household goes through different stages in the demographic circle (Hunt (1979)). Starting from a household consisting of just two adult

workers without children, the household grows in number as children are born. The consumer/worker ratio – calculated by dividing the total number of consumers in the household by the total number of workers in the household – increases from 1 to up to 2.5. Then children grow up and contribute increasingly to the work of the household, causing the consumer/worker ratio to fall, and as a last stage, children begin to form new families and begin a new circle. The question is now whether the households from the different groups (Members, Non-member, Control) are in different stages of the demographic circle making this a decisive characteristic of deciding whether or not to participate in a sanduq.

Table 6: Demographic household characteristics of the different groups

Characteristic	Mean of the sample			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
Age of the household head (years)	45.8	49.7	45.4	None
Child dependency ratio (all household members/adults (>16 years)	1.35	1.16	1.15	None
No. of children <16 years	3.72	3.22	3.72	None

In the present study, it was not possible to calculate the consumer/worker ratio the same way as Chayanov because many adults only find work during two or three months a year and children start working early. As proxies to find out whether the households from the various groups are in different demographic stages, the age of the household head, the child dependency ratio – calculated as all household members divided by the adult (age >15 years) - and to a lesser extent, the number of children below 16 years can be used (Table 6). None of them show any significant difference using independent t-tests at the level of 95% confidence, also households from the Members group seem to have slightly more children per adult living in the household.

Table 7: Educational household characteristics of the different groups

Characteristic	Mean of the sample			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
Education of household head (no. of years)	5.43	3.52	3.4	A & B A & C
Adult household members that studied at least 6 years (no.)	2.15	1.67	1.20	A & C
Adult household members that studied at least 6 years (%)	48.3	33.7	26.8	A & B A & C

Table 7 shows significant differences using independent t-tests between the Members and Control group for all three characteristics presented.

But significant differences between groups A and B can tell if education is a determining factor to be member of a sanduq or not. This is actually the case when looking at the education of the household head and the number of adults that studied for at least 6 years. So, generally households with better educated people more frequently choose to be member of the sanduq existing in the village. One reason for this might be that they have more knowledge and/or better opportunities to invest in an income generating activity.

Considering wage labor, migration, and food security indicators no significant difference between the different household groups could be found. Thus, there is no evidence that either wage labor or migration affects participation in a sanduq.

The average assets held and loans outstanding in Syrian Pounds (SP) are compared in Table 8. Significant differences can be found between the Control households and the two other groups when considering net assets, both per household as an entity and per person living in

the household. As these values present the amount of assets and debts in the year 2000, there is no effect of the sanadiq in these numbers. Again, we can draw the same conclusions: households living in a village with a sanduq established in the year 2000 belong more frequently to the Less poor group of households when considering the whole Jabal al Hoss region. There was no significant difference Between Members and Non-members of a sanduq from the same villages.

Table 8: Assets and debts from the different households in the year 2000

Characteristic	Mean of the sample			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
Value of net assets owned by the household (SP)	1,288,427	1,133,860	479,071	A & C B & C
Value of net assets per person living in the household (SP)	177,232	207,295	68,612	A & C B & C
Amount of loans outstanding (SP)	64,498	12,710	21,977	A & B A & C
Amount of informal loans outstanding (SP)	44,086	12,260	20,610	A & B A & C

A significant difference in average debts can be found between the member households and the two other groups, the Non-members and the Control. From an average of SP64,498, the Members-group borrowed SP44,086 from informal sources which is again significantly more than what the other two household groups borrowed from these sources. It can thus be concluded that the households that borrowed money from a sanduq in the first 16 months (Sept 2000 – Dec 2001) of the sanduq's existence in the village were the ones that were already most indebted at this time. It is also possible that the households borrowing money from informal sources were less suspicious of the new microfinance institutes called

sanadiq, either because they were already used to dealing with debts or because they were under financial pressure to accept any source of money without asking too many questions.

As a last characteristic differentiating households that are or are not members of a sanduq, it was asked if they have relatives or friends to rely on in case of an emergency shortage of cash.

Table 9: Number of households per group that can rely on relatives or friends in case of emergency

	Number of households			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
Have relatives or friends that help them with money	50	58	52	A & B B & C

Using a binominal test it can be said that households that live in a village with a sanduq but are not members of it have a higher possibility to rely on relatives in case of a shortage in cash when compared to the Members as well as to the Control. This might be one of the reasons why these households until January 2004 did not feel the need to participate in the sanduq of their village.

5.1.3 Livelihood Strategies

La Rovere and Aw-Hassan (2003) classified the livelihood strategies of the people in the Khanasser valley into six different livelihood strategies according to their major income generating activity. The six different classes are ‘Farmers and laborers’, ‘Mixed agriculturalists’, ‘Agriculturalists and laborers’, ‘Laborers’, ‘Herders and Laborers’, and ‘Herders’ (8).

The same categorization was used for the selected households in the Jabal al Hoss region. The lower limit to classify a household as being active in either crop production, animal production or wage labor was set at 10% of the total income of the concerned household. The outcome is presented in Figure 6.

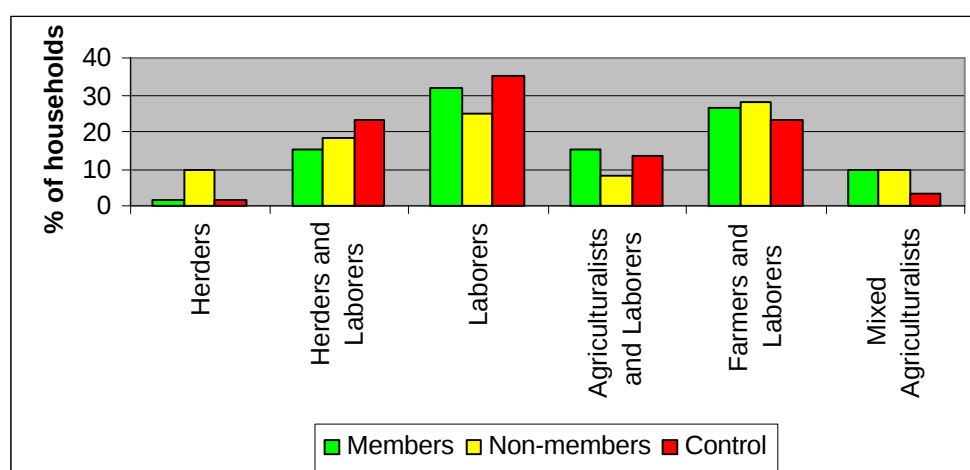


Figure 6: Percentage of households per group having the same livelihood strategy in 2003

The distributions of the households into the 6 livelihood strategies are quite similar for all three. However, households that are mainly engaged in animal production (Herders) tend to be members of a sanduq less often. Of all the households from the Non-member-group they make up 10%, while in the Control group, representing the average households in the region, only 2% adopted this livelihood strategy. Also, compared to the percentage of households from the same villages that are member of the sanduq (2%), the herders from the Non-member-group make up a considerably bigger proportion.

The second thing that can be shown is that people engaging in wage labor tend to be members of the sanduq more often than households with other livelihood strategies. This

might be because household members doing wage labor can invest in their own income generating activity, and, thus, have to rely less on income from outside the household. But, here the evidence is very weak as households engaging in crop production and wage labor (Farmers and laborers) make up a bigger share in the Members-group than in the other two household groups.

5.1.4 Overview of the Characteristics of Households Using the Sanadiq as a Source of Credit

If all the factors characterizing the members of the first nine sanadiq are considered, they can be grouped in two different classes.

1. The characteristics of the 9 villages show that these villages have potentially less inhabitants that belong to the Poorest group. The calculated poverty index, the assets held by the household, and the percentages of households that belong to a specific participatory developed wealth class show that the average household living in these villages is less poor than the average household of the whole region, regardless of whether the household is a member of a sanduq or not. Some common features of these villages are that they have better public services (schools, roads, electricity etc.) and a lower population than the average village in the region. The reason for this are RCDP internal regulations.
2. Some household characteristics also show differences between households that are members of a sanduq and the households from the same villages that are not member of the sanduq. A clear difference can be found in human capital held by the household.

Heads of households that are members of the sanduq have more education. These households also had a significantly higher percentage of adults with at least six years of education than the non-members households. The other feature distinguishing member households from the others in the same village is the amount of outstanding money they had before the sanduq started operating. Member households were relying much more on credit, more specifically, informal credit than non-members, even before the sanadiq were established. From the point of view of assets held, the household specific poverty index, and the participatory developed wealth classes, no significant difference could be found between the households living in the same village whether they were members or not.

5.2 *Impact on Income*

The impact of the sanadiq on income is very difficult to quantify. Recalling income data for a period of three years was not possible. Instead, the actual gross income and the perceived change of income since the year 2000 could be obtained. Gross income was either asked directly or calculated through the quantity produced and the according market price.

Also, from income as from the poverty index and the assets held, we get the same evidence: both, the households that are and the ones that are not members of the sanduq but living in the same nine villages are wealthier than the Control households. They have higher total income and total income per person living in the household. This results mainly from the fact that these households have higher wage incomes and higher incomes from animal production.

Table 10: Different kinds of income of the different household groups in the year 2003

Kind of income	Mean of the sample			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
Wage income (SP)	62,080	82,218	40,514	A & C B & C
Income from equipment (SP)	9,959	8,783	3,550	None
Income from crop production (SP)	66,599	28,565	23,928	None
Income from trees (SP)	307	200	312	None
Income from animal production (SP)	49,941	50,647	23,379	A & C
Income from non-agricultural self-employed business (SP)	30,273	3,033	19,702	A & B B & C
Total income (SP)	211,861	159,273	107,592	A & C B & C
Total income per person living in the household (SP)	23,720	20,633	12,880	A & C B & C

The numbers presented in Table 10 represent the income in the year 2003. As there is no data about income of these households in the year 2000, the interviewees were asked to classify the change of their income since the year 2000 into the following categories:

- 1 Substantially less
- 2 Less
- 3 No change
- 4 More
- 5 Substantially more

The results of this classification by considering different groups of households can be found in the following chapter.

5.2.1 Income

The changes in income reported by the interviewees resulted in the average change of income reported in Table 11.

Table 11: Changes of total income from 2000 to 2003 as perceived by the interviewees

	Mean of the sample			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
Change of total income (Score)	3.33	3.29	2.98	A & C

(1=substantially less, 2=less, 3=no change, 4=more, 5=substantially more)

Since score 3 would signifies no change in income, the average change per household group is very low. Nevertheless, there is significant difference between the members of a sanduq and the Control households. The group of Non-members reports nearly the same average increase in income as the Members but no significant difference at the 95% level (with independent t-test) can be found if compared to the Control households.

Table 12: Perceived changes in income from the year 2000 to 2003 for the different household groups according to their poverty group in the year 2003

Poverty group in the year 2003	Mean of the sample			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
Poorest (1)	2.56	2.80	2.88	None
Poor (2)	3.00	3.16	3.13	None
Less poor (3)	3.63	3.43	3.00	A & C
Significant difference (at 5%) between groups	1 & 3	None	None	

(1=substantially less, 2=less, 3=no change, 4=more, 5=substantially more)

In general, the Poorest perceived a drop in their income while the Less poor either perceived to have about the same or even a higher income than in the year 2000. In Table 12 it can be seen that the difference in perceived income change between Poorest and Less poor is biggest for the Members; it is significant using an independent t-test at the level of 95% confidence. The other significant difference can be found in the group of the Less poor, if comparing the perceived income change score between the Members and Control. The Control households report the lowest difference in income change between the Poorest and the Less Poor. From these findings it appears that sanadiq is increase inequality. However, one has to keep in mind that the non-member households in a village with sanduq also have a quite big difference in income change between the Poorest and the Less Poor. Thus, there are also other possible factors influencing this increase in inequality. The training courses provided by the RCDP in the villages with sanduq, the village size and the public services available in these villages (compare with point 1 in chapter 5.1.4).

Analyzing the perceived changes in income from households with different livelihood strategies did not lead to any significant conclusion. On one hand, the sample size is too small after breaking the household groups down into the household's livelihood strategies. On the other hand, 3 years is a very short period to achieve significant differences.

5.2.2 Diversification

One of the possible benefits of the sanadiq would be an increased diversification in income generating activities of the households. The question here is if the money borrowed from a sanduq is used to start a new business for the specific household. This would mean that increased availability of cash provided by the sanduq system is encouraging households to

diversify their activities. More diverse income sources can lead to lower risk of major drops of total income as a failure of one income source affects the total income to a lower extent.

To evaluate the amount of diversification initiated by the availability of cash through credits from a sanduq, the Members were asked what they would have done if they would not have had the possibility to borrow money from a sanduq. The answers are presented in Table 13.

Table 13: What would the Member households have done without the credit from the sanduq?

Answer	Number of respondents
I would have done nothing new	35
I would have done something else new	1
I would have done the same but on a lower scale	2
I would have done exactly the same as with credit	22

Of the 60 households interviewed that took their first credit from a sanduq in the year 2000 or 2001, 35 have actually invested in a new income generating activity, leading to a higher diversification of the household. On the other hand, 22 of these households have used the money to continue doing what they have been doing before. For example, they used the money from the sanduq to buy feed for their livestock or seeds and fertilizer for their crops instead of using money from other usually informal sources.

Drawing conclusions from this figure, one can say that the sanadiq lead to investments in new income generating activities. However, the same question was not asked to the other two groups of households, so it might be possible that these households have also started new businesses with money from other sources.

5.3 Impact on Assets

For asset data it was possible to collect enough reliable data about the assets held by the household in the year 2000. Therefore, the difference between the assets held in 2000 and the ones held at the time of the survey can be evaluated.

5.3.1 Physical and Natural Capital

Data on physical and natural capital held was calculated through the amount of each held and its estimated value. The results of an evaluation of whether or not there has been a significant change of assets held within a specific household group using a paired t-test at the confidence level 95% are listed in Table 14. A significant increase is indicated with a (+) behind the letter of the household group and a significant decrease with a (-).

Table 14: Assets held by the different household groups in the years 2000 and 2003

Kind of asset owned by the household in SP	Mean of the sample						Significant difference (at 5%) between groups
	Members (A)		Non-members(B)		Control (C)		
	2000	2003	2000	2003	2000	2003	
House	166,183	186,017	104,117	132,783	98,217	103,300	A+, B+
Other buildings	16,692	25,492	33,442	38,308	5,350	6,933	B+
Land	986,383	1,016,467	720,208	747,958	230,628	238,628	None
Trees	67,000	88,750	29,292	37,291	51,740	61,823	None
Livestock	60,721	86,032	139,420	95,705	70,048	50,810	A+, B-
Equipment	51,221	67,632	120,092	175,403	43,765	47,957	B+
Total assets	1,348,200	1,470,389	1,146,570	1,227,450	499,748	509,451	A+, B+
Total assets per person	185,437	186,372	209,150	198,774	71,308	71,875	None

The Members group shows a significant increase in the value of the house, the livestock, and the total assets held by the household. The households from the same villages but non-members of the sanduq show a significant increase in the value of the house and the total assets as well as the value of the other buildings like stables, stores or shops. But, they also show a significant decrease in the value of the livestock they own. For the Control households, no significant difference in any category of assets could be found.

In a second analysis, displayed in Table 15, it was investigated whether the differences shown above are significantly different between the three different household groups (Members, Non-members, Control) using a independent t-test again at the confidence level 95%.

Table 15: Difference in assets held by the different households between the years 2000 and 2003

Kind of asset (difference in SP)	Mean of the sample			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
House	19,833	28,667	5,083	A & C B & C
Other buildings	8,800	4,867	1,583	None
Land	30,083	27,750	8,000	None
Trees	21,750	8,000	10,083	None
Livestock	25,310	-43,715	-19,238	A & B A & C
Equipment	16,411	55,311	4,192	B & C
Total assets	122,189	80,880	9,703	A & C
Total assets per person	935	-10,375	568	None

The increase in the value of the house owned as well as the total assets held by the household again seem to be more closely related to the village of residence than to the

membership in a sanduq. On the other hand, there seems to be a relationship between membership in a sanduq and the value of the livestock owned by the household. While the Member households have an increase of the value of livestock owned, the other two groups have a decrease.

5.3.2 Financial Capital

Most of the households interviewed report that they do not have any cash reserve in the house or in a bank. Notably only one of the 180 households had a bank account. The usual reason when asked why they do not have any cash reserves was that they either use all the money directly for consumption or reinvest it in the production process immediately.

The households were asked about their outstanding debts. The answers are displayed in Table 16. In the same table the average net assets per household group is also calculated. Here, beside the asset categories mentioned in chapter 5.3.1, the money a household lends to other people is also taken into account.

Table 16: Average amount of credit taken and net assets per household in the years 2000 and 2003

Mean of the sample							Significant difference (at 5%) between groups
	Members (A)		Non-members(B)		Control (C)		
(SP)	2000	2003	2000	2003	2000	2003	
Total amount of taken credits	64,498	147,606	12,710	54,171	21,977	25,446	A+, B+
Total net assets	1,288,427	1,329,758	1,133,860	1,177,445	479,071	487,372	None
Net assets per person	177,232	170,886	207,295	193,551	68,612	69,053	B-

The total amount of credits taken, increased significantly from 2000 to 2003 for the Members and Non-members household groups from the same village. As Table 17 shows, these differences are even significantly higher than the average increase of outstanding loans from the Control households, but there is no significant difference between the increase in the Members and the Non-members group.

Considering the net assets, the only significant difference (decrease) can be shown in the net assets held per person of the household between the year 2000 and 2003 in the groups of the Non-members. However, this decrease is not significantly different from the changes that occurred in the other two household groups.

Table 17: Difference in credits taken and net assets per household between the years 2000 and 2003

Difference between 2000 and 2003 (SP)	Mean of the sample			Significant difference (at 5%) between groups
	Members (A)	Non-members(B)	Control (C)	
Total outstanding loans	83,108	41,461	3,469	1 & 3 2 & 3
Total net assets	41,331	43,585	8,301	None
Net assets per person	-6,346	-13,743	441	None

5.3.3 Human Capital

It was not possible to find any changes in human capital in this study. A period of three years is definitely not long enough to be able to measure any changes in education.

5.4 Other Impacts

The financial impacts of the sanadiq were analyzed until now. Of course, there are also many non-financial changes that occur over time and might be accelerated or even caused by the participation of a household in a sanduq.

5.4.1 Migration

Whether the presence of a sanduq leads to a reduction of migration is an interesting point that should be considered. Unfortunately, comparisons of numbers of household members that were migrating in 2000 and 2003 do not make a lot of sense. Most of the time, the adult sons and/or daughters are the ones migrating and once they have their own family they do not appear as migrating members of the old household anymore. Thus, in such a short time period, the whole comparison would only describe the demographic evolution of a household rather than migration patterns.

5.4.2 Job Creation

As it has been presented in chapter 5.1.2, members of sanadiq belong less frequently to the group of the Poorest or the Poor but more often to the group of the Less poor. It can now be argued that the poorest still benefit from the sanadiq in an indirect way, such as through the creation of new job opportunities by the households that were borrowing money from a sanduq.

Table 18: Average amount of people employed by the different household groups in the years 2000 and 2003

Kind of work offered (man-days)	Mean of the sample						Significant difference (at 5%) between groups
	Members (A)		Non-members(B)		Control (C)		
	2000	2003	2000	2003	2000	2003	
Agricultural laborers	53	40	30	33	43	45	None
Non-agricultural laborers	20	33	0	0	0	0	None
Total laborers	73	73	30	33	43	45	None

In Table 18, the number of man-days a household employs non-family laborers are presented. In the row of total laborers, it can be seen that there is no significant change in total jobs offered by any household group. However, it is interesting to see that within the group of the members there seems to be a shift from more agricultural jobs to more non-agricultural jobs offered, although this shift is not significant. Even if the data above do not support the creation of new jobs for laborers outside the family it is still possible that the investments done with money from a credit created jobs for family members that before were either un- or underemployed.

5.4.3 Women's Empowerment

For all the credit taken by a household the question of who controls the profit of the investment was asked. No analysis is needed to picture the fact, that it is always men that control the profit of an investment. According to internal numbers of the RCDP from the end of the year 2003, 40% of all shareholders were women and 38% of the total outstanding money from the sanadiq was promised to female borrowers. In the sample that has been drawn, not one woman controlled the profit of the investment made with the money she

borrowed in her name. However, if the household is headed by a woman, then women control the investment made with the money borrowed.

Thus, the empowerment of women through the sanadiq might not be very big even if names of women occur very frequently on the list of borrowers.

5.4.4 Informal Lending and Use of Credit in General

As already expressed in Table 8, informal lending is an important source of credit in the region. In Table 19, the different sources of credit used in the region are displayed. The average, minimal and maximal interest rate from different categories of credit sources are shown in Table 20.

Table 19: Sources of credit found in the Jabal al Hoss region and its categorization

	Abbreviation	Category
Agricultural Cooperative Bank	ACB	Formal
Agency for Combating Unemployment	ACU	Formal
International Fund for Agricultural Development (through ACB)	IFAD	Formal
People's Credit Bank	PCB	Formal
Crop input dealers that accept payment after harvest	CI	Informal
Crop output buyers that buy before harvest	CO	Informal
Livestock input (like feedstuff) dealers that accept payment after animal or its milk has been sold	LI	Informal
Moneylender	M	Informal
Relatives or friend	R	Informal
Shop keeper	S	Informal
Wage that has been obtained, before the work had been done	W	Informal
United Nation Development Program (Through sanadiq)	UNDP	Formal through sanadiq

Table 20: Interest rates for credits from different sources

Source of credit	Mean	Minimum	Maximum	Std. Deviation	Number of credits
In % per year					
Formal	5.3	2.5	12.5	2.4	30
Informal	50.3	0	504.2	63.5	506
Informal (without relatives)	76.6	0	504.2	64.6	330

According to these figures, informal credit sources charge very high interest rates. From all the informal credits 176 were given by friends or relatives that usually do not charge any interest. If these cases are excluded, the average interest rate for informal credit sources from the market (Informal (without relatives)) amounts to 76.6% per year.

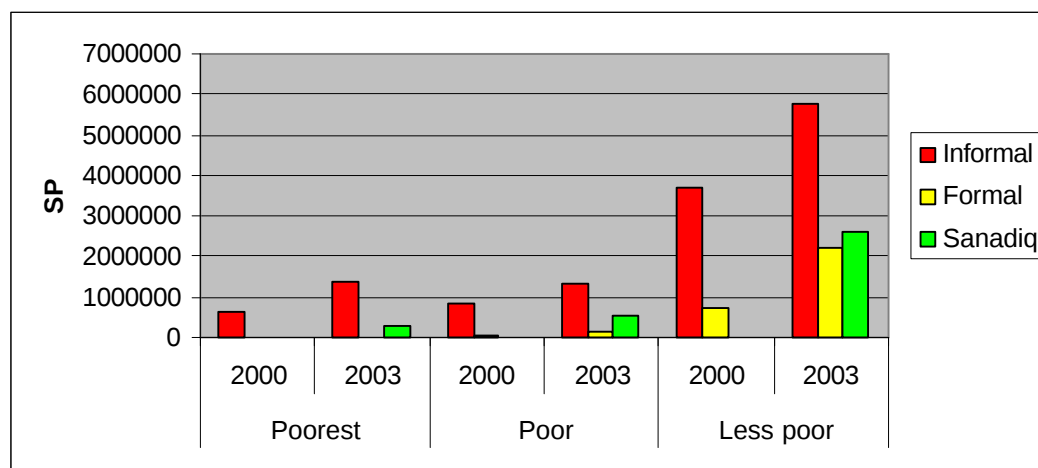


Figure 7: Amount of credit taken by the different poverty categories in the years 2000 and 2003

From Figure 7 it can be seen that informal sources make up for the biggest amount of borrowed money no matter what poverty category the household belongs to. The less poor households borrow by far the largest amount of money. They also have – together with a far

lesser extent the households from the category of the Poor – the possibility to borrow money from formal sources with low interest rates. The poorest have to rely fully on informal sources. Only since the first sanadiq started, the Poorest have an alternative source of credit with lower interest rates.

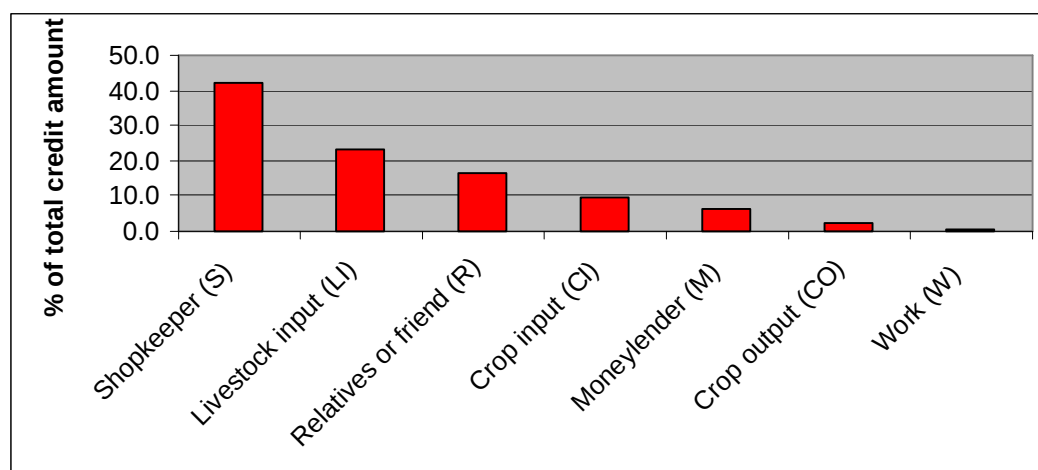


Figure 8: Percentage distribution of credit amounts from informal sources in the year 2003 from all households

Figure 8 shows where all these informal credits come from according to the categories displayed in Table 19. More than 40% of the total informal credit amount taken by all the households interviewed was from shopkeepers. About 23% was from livestock input (feed) traders and about 17% from relatives or friends.

In Figure 9 it can be seen that both the Members as well as the households from the Non-members have quite a big increase in credits taken, while the Control households show only very little increase in money borrowed from informal sources. While the increase of credits taken by the Members is 63%, 26% and 11% from the sanduq, formal sources and informal

sources respectively, the increased amount of credit taken by the Non-members is 95% from informal sources and only 5% from formal sources.

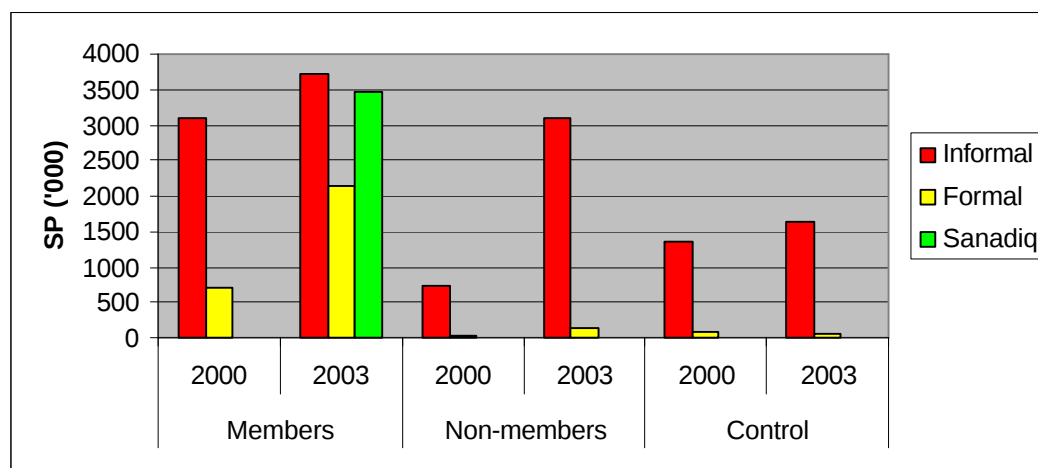


Figure 9: Credit sources according to household group in the years 2000 and 2003

From the Members group it can be seen that the presence of a sanduq in the village and the membership of the household in the sanduq does not lead to a reduced use of informal credit. The credit amount from all the sources increased from the year 2000 to the year 2003. In the year 2003, the money borrowed from sanadiq makes up about 40% of the total money borrowed in the Members group. The increase in credits taken from formal sources is mainly due to IFAD and the ACU that extended or started operating during the same period.

When looking at the investments made with the credit in Figure 10, one can see that the main increase of informal credits taken was due to investments in farm equipment and to a lesser extent for consumption and non-agricultural activities. The big increase of informal credits taken for equipment is mainly due to the group of the Non-members. The reason for this might be that for these households it is the easiest to get informal credit for equipment

as the equipment purchased with the credit money is considered as collateral by the moneylenders. Members tend to invest much more often in livestock than in equipment because the maximal lending period from a sanduq is only one year and this is clearly not enough to amortize a tractor being the most frequently bought equipment.

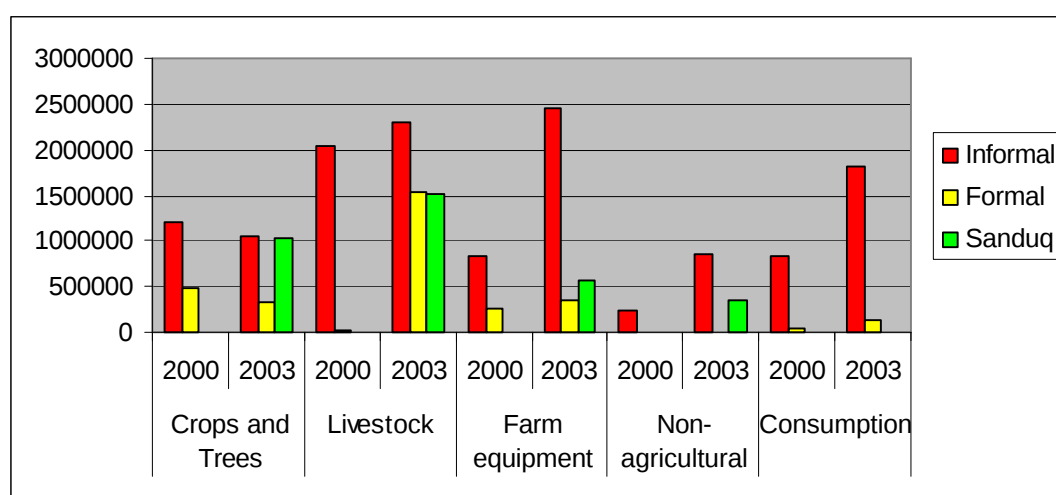


Figure 10: Investments done with the credits taken form different sources in the years 2000 and 2003

Considering the investment in crops and trees the Member households actually reduced informal lending and substituted it with credits from the sanduq, while the Non-members increased the amount of informal credits taken for this purpose.

If the quite important increase of credits taken for consumption is broken down into the three household groups it can be seen that it is distributed about evenly among them. As the Control group takes generally much less credit than the other 2 groups this means that the relative amount borrowed for consumption purposes is by far the biggest for the Control group. As the households from the Control group also have a lower income and fewer assets than the other 2 household groups this is a warning sign that these households are actually

getting more and more indebted without being able to make potentially profitable investments due to there poverty level.

5.4.5 Change in Poverty Group

From Figure 11 it can be seen that for the household groups of Members and Non-members nearly no change of the poverty group occurred. For the household from the Control group, on the other hand, it can be observed that about 10% more of these households belong to the poverty category of the Poorest in 2003 than in 2000.

Concluding from these findings it can be argued that the presence of a sanduq in the village does not generally lead to a big improvement of the situation of the households from these villages but that it at least prevents its deterioration.

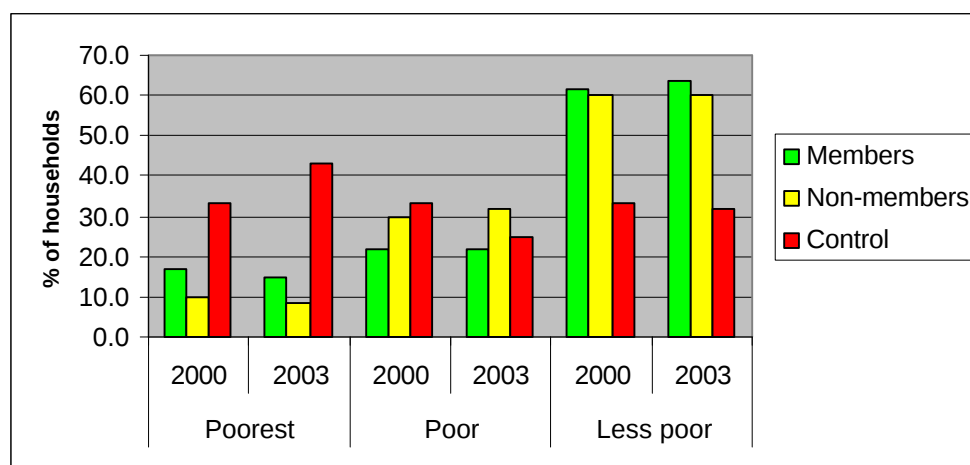


Figure 11: Percentage of households per household group in the different poverty category in the years 2000 and 2003

The reason why it does not really matter if a household from the villages with sanduq is member of the sanduq or not, can be explained in two ways. It could be caused by either the

village effect as explained in chapter 5.1.1, or there is a quite an important effect of other services such as training courses that are provided by the RCDP to the village with a sanduq although 3 years is a very short period to have impact form training courses.

6 Conclusions

It has to be recognized that an operational period of three years is a very short time to show the impact of a microfinance program. Nevertheless, some interesting conclusions can be drawn from the data collected.

The RCDP selected the first nine villages where a sanduq was established based on their policy only to work in villages with at least 300 inhabitants with an all year round accessible road, which excluded some of the poorest villages. This is the main reason why fewer households that are members of one of these first sanadiq belong to the Poorest or Poor poverty groups when compared to the Control households. Within the chosen villages, there is no big difference in poverty group categorization and average income or assets of the households. This means that within a chosen village the Poorest can be reached by the sanduq system. One can also argue that even if a considerable share of the poorest of the region are not reached by the sanduq system, most of them belong to the poorest of the country as the Jabal al Hoss region is considered to be one of the poorest in all of Syria.

Considering income it is recognized that in general the poorer households perceived a decline of their income while the less poor households more often perceived an increase of their income over the past three years. In the villages with a sanduq, this increase in inequality was more accurate than in the villages that have been chosen at random. Again, being a member of the sanduq is not the determining factor, but living in a village with a sanduq is. However, it can not be concluded that the presence of a sanduq in a village leads automatically to increased inequality as the reason for the increased income difference

between Poorest and Less poor could also be caused by the better infrastructure that is available in these villages.

As the RCDP not only establishes sanadiq, but also provides literacy courses and training courses for new income generating activities such as bee keeping or mushroom growing in the same villages – and not in any other villages – it is not possible to separate the impact of the training courses and the one from the sanadiq per se. It also does not make much sense, since one precondition for microfinance programs to be successful is to enable people to make profitable investments. Thus, the two components of the RCDP have to be considered as one intervention with one goal – alleviating poverty.

A very similar picture appears when looking at assets. Households from the sanduq villages have a higher amount of assets than the ones from the Control group. Considering the difference in assets held by the households in the year 2000 and 2003, only in the value of the livestock owned the Member households had a significantly higher increase than the Non-members – actually these households, like the Control households, even had a decrease in the value of livestock owned. Overall, the gross assets for both household groups from a village with sanduq increased considerably from 2000 to 2003, while the gross assets of the Control households stayed more or less the same. A different picture occurs when debts are also taken into consideration. Both household groups living in a village with sanduq had a considerable increase in debts over the past three years, while the debts of the Control households remained stable at a quite low level. The members of a sanduq increased their debts mainly by credits taken from the sanadiq, but also from other formal sources as the ACB, the ACU, and IFAD. Non-member households from the villages with a sanduq

mainly increased the amount of money borrowed from informal money lenders. One goal of the sanadiq was to reduce the amount of money borrowed from these informal sources that charge very high interest rate. This could clearly not be achieved as the non-members increased their informal debts considerably and the members are still borrowing about the same amount of money from these sources.

7 Implications

It has been shown that the smallest and most disadvantaged villages were not considered for getting a sanduq because of internal project regulations. It is exactly in these villages with fewer infrastructures, where the biggest part of the poorest of the region lives. Even if considering the whole of Syria, most of the less poor living in Jabal al Hoss might still be considered as poor. A better targeting of the poor can help increase the project's capability to alleviate poverty. By establishing a few of the now 30 sanadiq in villages with very few infrastructures, it has been demonstrated by the project itself that it is possible to work in these less favored villages. As the project also provides literacy courses as well as training courses for new income generating activities and allocates FAO grants that finance small productive assets (a few sheep, honey bees etc.) for the very poor, the poverty outreach of the project is already deepening.

Considering the findings overall, the sanduq system shows a promising possibility to provide financial services to the rural poor. Formal institutions have low, subsidized interest rates, but do not reach the poorest in the region. Informal credit providers do lend money to the poorest, but charge very high interest rates. All households from the region borrow from informal sources. Until now the project has not reached its goal of reducing the amount of money borrowed from these sources. This might also take more time than three years, but the fact that the member households have not yet reduced their informal debts implies a probable danger for the sanadiq. Informal moneylenders charge very high interest rates and they have the possibility of pressuring their clients if they do not repay the loan in time. If an individual is under high pressure from an informal moneylender, he might easily fail to

repay the loan taken from a sanduq as the consequences are less severe. There the need and importance of a clear legal framework for the sanadiq comes into picture.

Probably the most pressing subject before the sanduq can be recommended for other regions in Syria is the missing nation-wide law for microfinance in the country. Although Burjorjee and Brandsma (2004) argue that there is no immediate urgent legal bottleneck to the development of the microfinance industry (MFI) as NGOs are allowed to engage in credit activities as long as they do not distribute profits, while cooperatives can engage in credit activities and distribute profit to their members. They also argue that regulation and supervision only become important when MFIs start mobilizing other poor people's savings and deposits. On one hand, the sanadiq already engage in mobilizing other poor people's money by enabling all members to buy a maximum of 50 shares to SP1,000 per person. This money is then lent out as credit. On the other hand, Burjorjee and Brandsma (2004) themselves report that one of the three conditions that have to be met before a microfinance institution should start mobilizing savings is an appropriate legal and regulatory environment. What they also recognize, and more or less points in the same direction, is that all the attempts of different microfinance projects in Syria to define a regulatory framework with the Syrian government on a bilateral basis should be better coordinated.

Yaron (1997) writes: "Although the costs associated with the implementation of legal and regulatory reforms are moderate, the long-term benefits are enormous. Much more emphasis is warranted on the reform aspect of building rural financial markets and improving the performance of rural financial institutions." Yaron (1997) also argues that an active role of the government is needed to establish a favorable policy environment to facilitate the

smooth functioning of rural financial markets, but a more limited role is necessary in direct interventions in rural financial markets. This would mean that instead of continuing to supply highly subsidized rural credit through the ACB, which is even not reaching the poorest, it would be more beneficiary for the poor to establish an appropriate legal framework for small semi-formal microfinance institutes as the sanduq.

Beside the external regulatory framework, clear sanduq internal rules are needed. For example, in several informal interviews, sanduq members expressed their insecurity about how the profit of the shares of the sanduq they own will be distributed. During the past three years, distribution calculations have always changed slightly so people are getting insecure about the sanduq internal regulations. With the three years of experience, the RCDP has now established and are still working on bylaws that will regulate all internal processes of a sanduq and its relation to the project.

As already stated above, once these shortcomings are eliminated, the sanduq system may very well present an important potential for the provision of financial services to poor rural areas in other regions of Syria.

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Annexes

1. Microfinance in the Middle East and Syria

Microfinance in the Middle East

Brandsma and Chaouali (1998) state that economic growth remains the most effective way to alleviate poverty. In the Middle East and North Africa, GDP would have to grow by at least 5 percent a year to reduce poverty. However, medium-term World Bank growth projections for the region are only 3.5 percent a year. Thus, poverty is expected to increase at the projected growth rate. One way to avert this outcome is to extend microfinance services to poor people throughout the region.

Brandsma and Chaouali (1998) also found that in 1998 in the Middle East only about 15% of the microfinance money went to rural areas and of the 60 million poor people in the region – defined as those living on less than \$2 a day – only 112,000 have access to financial services. At the very minimum, 4.5 million more poor people require access to financial services. These potential borrowers need at least \$1.4 billion in microloans; in 1998, the region had less than \$95 million in outstanding microloans. This large financing gap does not include the additional funding needed to build sustainable microfinance institutions and increase outreach. Daley-Harris (2002) stated that the organizations reporting to the Microcredit Summit Campaign (MSC) in the entire Middle East in the year 2001 only had 128,158 clients, while there were 4.6 million potential borrowers as stated by Brandsma and Chaouali (1998).

It is unrealistic to think that this financing gap can be closed solely with donor or government funds. Available resources need to be used more efficiently, and the private sector must be encouraged to participate in microfinance. Mechanisms that encourage private participation must ensure that such efforts are profitable and help the poor on the one hand, and reduce reliance on donor and government funding on the other. Brandsma and Chaouali (1998) also found that in most countries of the region, the total funding needed for on-lending to microenterprises (\$1.4 billion) represents less than 1% of the countries' bank's total assets. This means that the money for microcredits is actually available in most countries.

Islamic banking principles

In some countries microfinance is constrained by social, cultural, or religious barriers. For instance, some Islamic groups consider charging interest to be against *sharia* (the code of law based on the Koran). However, some services can also be offered using Islamic banking principles, such as *murabaha*, *musharaka*, or *mudaraba*. Several programs in the region offering financial services based on Islamic banking principles show promising results. Below you can find a short description of these three important Islamic banking principles as described by Dhumale and Sapcanin (1999) in Hamze (2001).

Murabaha (Profit sharing) The borrower receives the goods or animals purchased with the loan, instead of money. He has to repay the purchase price of the goods plus a service charge equal to a certain percentage of that price instead of interest.

- Musharaka* (Joint venture or equity participation) The borrower provides part of the capital needed and is responsible for managing the project. At the end of the project, usually two thirds of the profit goes to the borrower for his efforts. The remaining third is split between the borrower and the fund, according to the amount of capital each contributed.
- Mudaraba* (Partnership) The loan fund finances the entire cost of the project. The borrower contributes only the management and must keep careful records of all expenses and income throughout the project. In the end, the net profit is shared between the loan fund and the borrower, according to percentages previously agreed upon. Two subtypes:
- Musaqat* Applies specifically to orchards, whereby the harvest is shared among all equity partners according their contributions
- Muzar'ah* Also an agricultural arrangement, whereby the funding party provides land or money in return for a share of the harvest

Microfinance in Syria

According to data presented by the World Bank (1996), there was no microcredit program in Syria in 1996. The number of potential new borrowers of microcredits in Syria was estimated in 1998 at 203,000 and the financing gap at \$75 million (Brandsma and Chaouali 1998). This shows the huge potential for microcredits in Syria.

Figures from the Annual Agricultural Statistical Abstract (MAAR, 2002) of loans from Agricultural Development Bank (ACB) classified by crops show that 74% of the in-kind loans- went to cereals and 10% to cotton. All other crops took up the remaining 16% of

loans issued. This is indicative of the narrow base of the formal rural credit system. This, together with the trend of average loan size having increased by 32% in the last few years, shows that formal credit has enormous potential for reaching out to other crops and smaller farmers to increase overall agricultural productivity.

Syrian governmental banks

Until 1997, the only source of microcredits was the government's financial sector. This system consists of five specialized banks, namely, the Commercial Bank of Syria (CoBS), the Agricultural Cooperative Bank (ACB), the Industrial Bank (IB), the People's Credit Bank (PCB), and the Real Estate Bank (REB). The ACB and PCB are of primary importance for the provision of small loans to rural people. Beside these two banks, the Agency for Combating Unemployment (ACU) also provides credits for Micro-, Small-, and Medium-Enterprises (MSME) in rural areas. A short description of the ACB, PCB and the ACU can be found in Annex 5.

Microfinance projects in Syria

Microfinance is a very new industry in Syria. The first rural microfinance programs started in 1997 and 1998 (Lechiguero, 2002). In the five or six years that have passed since then, not many rural people have access to financial services. Also, a greater effort is needed to reach the very poor and remote people. A short description of the microfinance projects existing in Syria is given in Annex 5.

2. Rural Community Development Project of the UNDP in Jabal al Hoss

The facts about the region have been taken from the UNDP report, 'A Socioeconomic Study of the Rural Community at the Area of Jabal al Hoss' (2000).

Geography and Climate



Figure 12: Map of northern Syria including the project region of Jabal al Hoss marked in red

The Jabal al Hoss (Hoss Mountain) is a hilly region that starts about 15km southeast of Aleppo. It covers an area of about 157,000 hectares of which around 85% is cultivable. However, the cultivation of one third of this 85% is very limited by rocks covering more than three quarters of the surface. The Jabal al Hoss region lies between 350 and 600 meters above sea level.

Syria has a Mediterranean climate with continental influence: cool rainy winters and warm dry summers, with relatively short spring and autumn seasons. The average annual temperature is 18°C; 30°C on average in summer and 6°C in winter. The yearly precipitation ranges between 200 and 350 millimeters and falls mainly between the months of November and April. As explained above and described in Annex 3, the government divided Syria into 5 agricultural settlement zones based on average annual rainfall. The study region falls in three of these zones: 20% of the cultivable lands belong to the second zone, 43% to the third, and 37% to the fourth.

The available groundwater in the region comes from two water basins. The upper basin is shallow with a depth 60-150 meters below surface and is used for household consumption and irrigation. The lower one is sulfuric and ranges from 300-600 meters below surface. The water from this basin cannot be used for irrigation as its salt content would render the soil unfertile over the years.

Population

Based on the 1994 census, Jabal al Hoss consists of 156 villages with a population of 208,000 individuals and 23,000 households. Considering the expected growth rate and the

expected out-migration of the region, it can be estimated that the actual population in the region is about 250,000 living in around 27,000 households.

Economic situation

The principle economic activity of inhabitants of the area is animal husbandry with a clear focus on the rearing of sheep. The profitability of this activity is limited and there is little diversification of income generating activities. Most residents are, therefore, forced to work as wage laborers, either in Syria where they pick cotton and olives depending on the season or in Lebanon and Jordan where they work mainly on construction sites or undertake menial work. Those who work in Syria only find employment during specific periods of the year, and remain without employment for a large part of the year living off the money accumulated during the cotton or olive seasons.

Development Programs in Jabal al Hoss

Besides the RCDP, described below, IFAD is also operating a development project in the Jabal al Hoss region. Their main focus is on clearing land from rocks, legal land reclamation, different infrastructure provision, veterinary services and as described in Annex 5 lending money for microenterprises through the ACB.

Financial Services in Jabal al Hoss

Beside IFAD, which is operating a full development project covering the whole region, several other organizations are partly present in the region. The ones offering financial services to some households in very few villages of the region are FIRDOS and the WFP.

As for pure governmental organizations, the ACB, ACU, and the PCB play a role as source of credit in the region (see Annex 5).

Activities of the Rural Community Development Project (RCDP)

A very brief description about the UNDP RCDP in Jabal al Hoss and the MAAR of Syria follows.

The RCDP started its first phase in the beginning of the year 2000 and in January 2003 entered the second phase that lasts until 2007. The activities of the project can be grouped into two different fields:

1. Establishing of sanadiq as a means of providing microfinance services to the rural poor
2. All the other activities (mainly the organization of different training courses)

Microfinance with sanadiq

The word ‘Sanduq’ has several related meanings in Arabic: a box; a box to store valuables; a fund; a communal or group fund; the community or group holding the fund; a local financial institution, or microfinance institution (MFI), holding a fund. In this report, the term sanduq refers to an autonomous microfinance institution, which is owned and managed by its members.

To establish a sanduq in a village the following steps have to be taken:

1. A minimum of 50 people from a village put in at least 1,000 SP per person.
2. A village sanduq committee consisting of 3 people from the village, with at least 1 woman, is elected.

3. The sanduq starts with an experimental stage of three months without any external financial support.
4. If the experimental stage is successful, the RCDP will put additional money in the sanduq to allow them to give loans to more members.
5. The sanduq committee under supervision of the RCDP agrees on loans at either 1% (monthly payback) or 1.5% per month (payback at the end of the loan period) using Islamic principles (murabaha).

The figures in Table 21 describe the sanadiq established by the end of March 2004.

Table 21: Features of the sanadiq established by the RCDP in Jabal al Hoss until the end of March 2004

Number of sanadiq	30
Number of shareholders	6,446
% of female shareholders	40%
Number of loans distributed	4,431
% of loans distributed to women	38%
Amount of savings mobilized	SP9,9 Mio
Repayment rate	99.6%

In Figure 13, one can see that the major investments from loans taken from a sanduq go either into agriculture or livestock production.

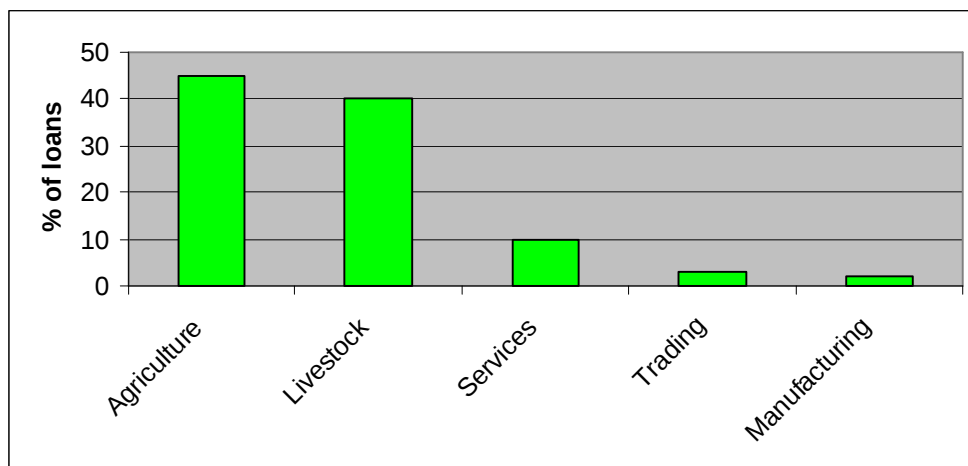


Figure 13: Investment done with the credit taken from a sanduq from September 2000 to March 2004

Other activities

The RCDP has several other activities in the region, the most important is probably conducting training courses. Only the villages with an established sanduq profit from these training courses. They cover subjects as: literacy, traditional sewing, first aid and nursing, hairdressing and cutting, electricity and cooling systems, accounting, bee keeping, and mushroom growing.

The RCDP also allocates money from the FAO through its telefood fund. The grants financed through this channel should benefit the very poor and help them establish a home garden or start up bee keeping.

Last, but not least, the RCDP organizes regular field days or symposiums for the wider public, e.g. in mushroom growing or home gardens, and participates in exhibitions in order to promote the locally manufactured products.

3. Agricultural Settlement Zones in Syria

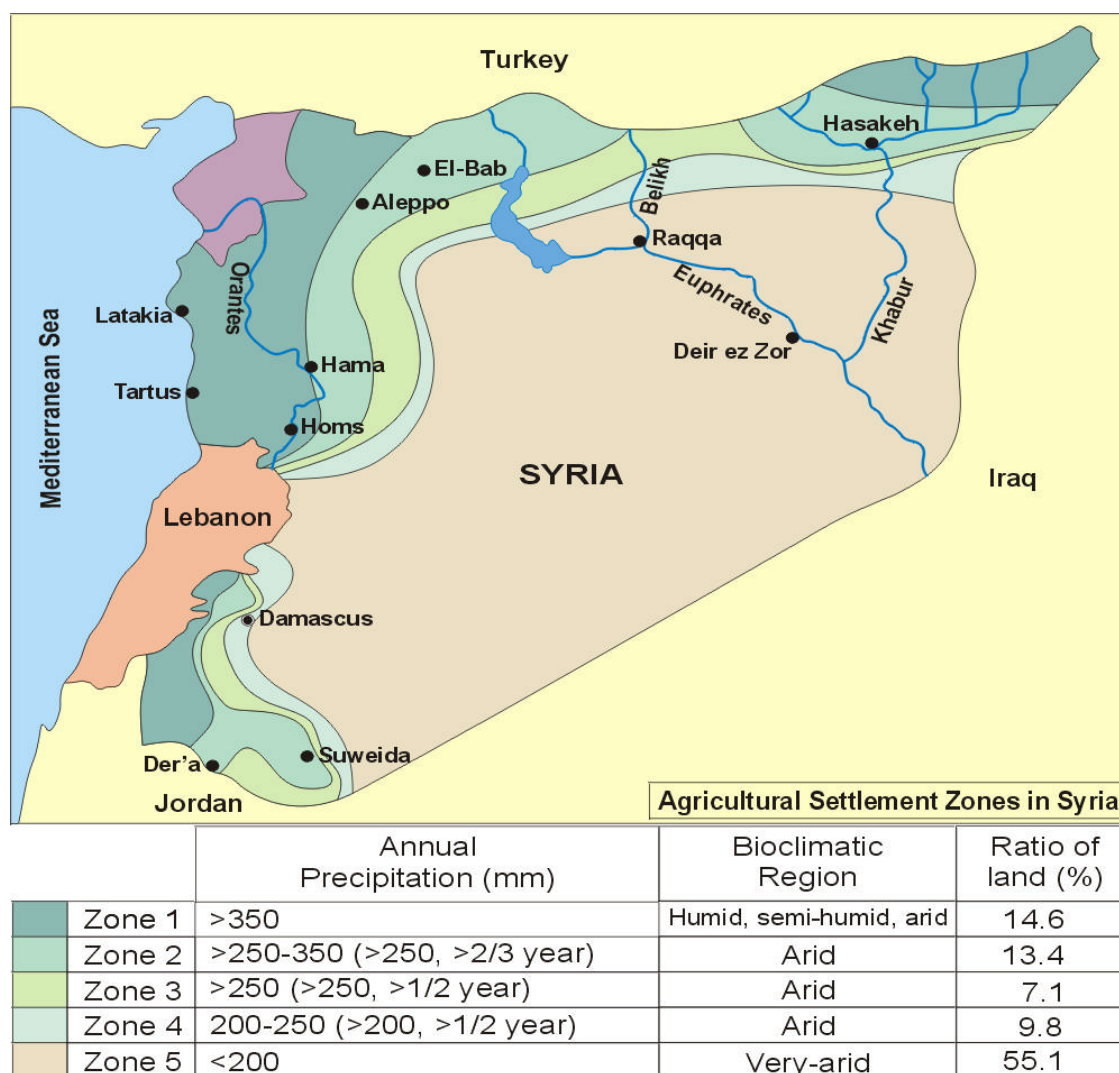


Figure 14: Map of the agricultural settlement zones in Syria

Zone 1: Annual average rainfall of over 350mm. It is divided into two areas:

- Areas with an annual average rainfall of over 600mm where rainfed crops can be successfully planted.
- Areas with an annual average rainfall of between 350-600mm, but not less than 300mm during two thirds of the monitored years, and where it possible to get two successful crop seasons every three years. The main crops are: wheat, legumes, and summer crops.

The area of this zone is 2,701,000 hectares and forms 14.6% of the country area.

Zone 2: Annual rainfall of 250-350mm but not less than 250mm during two-thirds of the monitored years; it is possible to get two barley crops each three years. Beside barley, wheat, legumes, and summer crops are grown. **The area of this zone, 2,475,000 hectares, forms 13.3% of the country area.**

Zone 3: Annual rainfall of 250-350mm with not less than 250mm during half of the monitored years; it is possible to get one or two seasons each three years. The main crop is barley, but legumes could be planted. **The area of this zone, 1,303,000 hectares, forms 7.1% of the total country area.**

Zone 4: Marginal zone between the arable zones and the desert with annual rainfall rate between 200-250mm and not less than 200mm during half of the monitored years. This zone is suitable only for barley or for permanent grazing crops. **The area of this zone, 1,830,000 hectares, forms 9.9% of the country area.**

Zone 5: Desert and steppe zone, this area covers the rest of the country and is not suitable for rainfed cropping. **The area of this zone is 10,209,000 hectares and forms 55.1% of the total country area.**

4. Detailed Sampling Procedure in the Randomly Selected Villages

Hajeb

The *Moukhtar* (village head) of Hajeb was very helpful. He listed all the households systematically from one end of the village to the other. From time to time, he consulted one of his friends with him for a name of a son or the person living in the house next to the last one mentioned. From the resulting list of 153 individual households, the required 6 were selected.

Tel Shegheb

The *Moukhtar* of the village recommended the extension office in the village as a possible way to get a list of all the households of the village. He also provided us with a list of the 11 extended families (more than one household) that would not be on the list of the extension office because they do not own any land or livestock..

The extension office of Tel Shegheb provided a list of 301 extended families owning land, as well as a list of livestock owners that do not own land with 101 individual households. It was not possible to get copies of these lists. For this reason, the sampling was done immediately with the help of a table of random digits.

From the list with individual households owning livestock but no land, just one household was selected. For selecting individual households from the two other lists, a two-stage selection procedure had to be applied. In order to give each individual household from the extended families the same chance to be selected, a list of all sons or even grandsons with a

separate household was drawn up. Married daughters and granddaughters living in a separated household were not listed, because their households will appear if the extended family of their husbands is selected. After that, one of the listed households for each extended family was selected randomly. With this procedure, not only the family head or his eldest son were interviewed, but also younger siblings with their own household.

From the list of the 301 extended households owning land, four were selected. From the list of 11 extended households owning no land and no livestock provided by the *Moukhtar*, one was selected.

Table 22: Population of Tel Shegheb

Group	Kind of household/family	Total	Selected
Families without land and livestock	extended families	11	1
Families owning land	extended families	301	4
Households without land but with livestock	individual households	101	1

Limitation of the selection procedure of households in Tel Shegheb

No comprehensive list of all individual households of Tel Shegheb was available. It was not possible to construct such a list with the *Moukhtar*'s estimated 1000 households due to time constraints. It has to be recognized that with the above-described method not every household has the same possibility to be chosen in the sample. A household from the lists of landless extended families has a higher chance to be selected than one from the list of landowning extended families. Since the number of households in each extended family is not known, a household from an extended family with only a few households has a higher chance to be selected than one from an extended family consisting of many households. The average extended family probably consists of 5 individual households. This means that the

possibility for an individual household to be selected from the list of households without land but with livestock is smaller than the probability for households from landless families without livestock, but higher than the one for households from landowning families. Considered overall this sampling method is still very close to complete random selection while taking into the different types of households into account.

Smad

The *Moukhtar* in Smad was not available. In order to draw up the list, we asked the local people to point us to a person who would know the names of all the households living in the village. They led us to Mahmoud al Ahmed al Ahsen. Together with his wife and son, he listed all the individual households with the same system as in Hajeb and Kafr Abeed. From the resulting list with 99 individual households, the needed 12 were selected.

Kafr Abeed

In the database of the socioeconomic study of the Jabal al Hoss region of the UNDP (2000), the few houses of Naziha were included with Kafr Abeed as part of the village. Naziha does not have a *Moukhtar* and is administered by the *Moukhtar* of Kafr Abeed. The local people consider Naziha as a farm belonging to Kafr Abeed.

As the *Moukhtar* of Kafr Abeed lives in Aleppo, we visited the head of the local agricultural cooperative to list the households living in the village. Similar to the *Moukhtar* of Hajeb, he and his brother listed all the households systematically moving from one end of the village to the other. From the resulting list of 266 individual households, the needed 12 were selected.

Jeb Jasem

ICARDA has been working in Jeb Jasem for other purposes. Therefore, a list of households from the year 2002 already existed and the random selection of 6 households was done directly from this list of 28 households.

Hokla

The day we arrived in Hokla, the *Moukhtar* had just completed an operation on his teeth. Many people from the village were visiting him for this reason. He agreed to list all the households of the village and if needed the people visiting were asked to help. From the resulting list of 99 individual households, the needed 12 were selected.

Mesiadeh

Mesiadeh is a very small village. During the first visit, a list of all households was drawn up during a group discussion. The residents of the village divided the list into landowning and landless households. The following number of households was listed. 6 of these were selected to be interviewed.

Table 23: Population of Mesiadeh

Group	Kind of household/family	Total	Selected
Landless households	Individual households	35	4
Landowning households	Individual households	13	2

5. Description of the Organizations Relevant for Microfinance in Rural Syria

Agricultural Cooperative Bank

The ACB provides relatively inexpensive microcredits (4-7.5% interest per year) to farmers in the agricultural settlement zones 1 to 3 as explained in Annex 3. A few exceptions include farmers with deep wells in zone 4, but usually the ACB does not provide credits to the more risky agro-ecological conditions of the zones 4 and 5. Furthermore, only persons that own either land or other assets that can be used as collateral, or can present two guarantors can get credit from the ACB. The ACB combines the functions of loan disbursement, input distribution, and crop proceeds disbursement, and the last function is rendered on behalf of Government agencies for procurement of grain, cotton, seed, vegetable, and sugar. The ACB collects loans and conducts transactions in accordance with the Public Funds Collection Law, the Syrian Law and the Code of Procedures. It has priority in claiming fixed and current assets of the debtor and those of the guarantor with respect to recoveries, regardless of whether or not such assets are mortgaged in favor of ACB, subject only to any charge prior to the date of the issuance of the loan. Branch managers are authorized to act as registrars of documents on behalf of the Real Estate Office and mortgage endorsements made by them are legally recognized. ACB also has special powers of confiscation, under law, without having to go through elaborate legal procedures. ACB, as a lending agency, has special powers of endorsing collateral charges on ownership titles, which are legally enforceable. This is a unique feature of the Syrian system, encouraging timely repayments and acting as deterrent on willful defaulters (FAO, 2003).

Table 24: ACB loans outstanding by term (million SP)

	1997	1998	1999
Long term max 10 years	252	181	123
Medium term max 5 years	1.978	1.701	1.278
Short term max 300 days	4.248	4.023	3.442
Loans in kind – Short term	6.920	6.735	5.366
TOTAL	13.398	12.640	10.209

Source: FAO (2003)

Table 24 shows the amount of outstanding loans from the ACB by term for the years 1997 to 1999. It can be seen that lending has been steadily declining. According to the FAO (2003), this might be due to the small flexibility in loan structures to suit different crop and cash flow situations. There is also no distinction between a good borrower and a bad one, between a borrower who keeps his value addition in the bank, and one who either does not produce the value addition or squanders it.

Despite fewer loans, there is a very high subsidy dependence of the ACU. According to Yaron (1997), subsidy dependence of rural financial institution is the percentage by which its average on-lending rate would have to increase to make it sustainable. In the present case, the present average lending rate of 7.44 percent needs to be increased, according to FAO's estimate, by 3.26 percent points towards interest, plus 9.59 percent points toward additional transaction cost incurred by ACB – that is, by a total of 12.85 percent. This gives a subsidy dependence index of 1.73 ($12.85/7.44$), which is extremely high and untenable. Of this 1.73, untenably low interest rates account for 0.44 and the very high transaction cost for the balance 1.29 (FAO, 2003).

People's Credit Bank

The PCB only offers credit to government employees. It has two different kinds of credits.

A personal credit can be accorded to any government employee for a period of 3 years.

Productive credits are provided to any government employee that would like to invest in an income generating activity. For this loan, the duration is just 1 year. For both credits, the borrower has to present 2 guarantors that are also employed by the government. Loan repayment and interest are automatically deducted from the monthly salaries. Interest rates are between 7 to 9 percent per year.

As one has to be a government employee in order to benefit from these credits offered, the outreach of the PCB is already quite limited. There is even further limitation for rural areas, where government employees are not that frequent and it gets increasingly difficult to find the 2 guarantors needed.

Agency for Combating Unemployment

In July 2002, the Syrian government created the Agency for Combating Unemployment (ACU) to reduce the number of unemployed people in the country in both rural and urban areas. According to the 2001 census, 545,000 people or 10.3% of the population of Syria were without work. The ACU's task is to stimulate job creation by:

1. Micro-, small- and medium-enterprise development, and
2. Public works and housing projects.
3. As a third activity, it will mobilize resources for community development, gender sensitization, and training to stimulate income generation and poverty reduction.

The first program – the Micro, Small, and Medium Enterprise (MSME) Program – is actually a microfinance program. In this program, the ACU offers two different kinds of loans. The small and medium enterprise's loans are directed to targeted individuals to increase the manufacturing and service capability of the country, create new job opportunities, and contribute to improving beneficiaries' income. Loans are given on the basis of feasibility studies conforming to specific criteria. The micro-enterprises or family loans are directed at low-income families to assist them in creating enterprises. Productive workers are eligible via intermediary organizations interested in developing income sources for the poor. The loan duration is a maximum of 5 years and the interest rate (or administration fee) is set at 4% and is even halved if payback is done in time and the project is executed properly. Family loans are accorded to up to SP100,000, small loans from SP100,000 to SP3 million. The average amount is around SP100,000.

To obtain a loan from the ACU, a person has to have the following characteristics:

- 20 – 50 years old
- Permanent resident in the governorate of the project
- Completed or be exempted from military service
- Non-governmental worker and/or not receive social security benefits
- Experience in the area of the project (himself or by a partner) or relevant qualifications.

No agricultural loans are provided to the agricultural settlement zones 4 and 5. In these zones, only non-agricultural activities such as processing or trade are supported by the ACU.

Aga Khan Development Network (AKDN)

The AKDN is operating microfinance institutes in several locations in Syria where normally a important number of Ismaelis are found, like in the old City of Aleppo, Al Haffa (Lattakia), Massiaf, Al-Jawabi, and in the district of Salamieh. Their target population is the medium class with an entrepreneurial background and a certain degree of experience in business. In Salamieh district for example, they offer credits either for agriculture and non-agricultural income generating activities ranging from SP3,000 to 150,000. Interest rate is 1% per month.

Fund for Integrated Rural Development of Syria (FIRDOS)

FIRDOS has identified 60 villages in 6 different governorates that showed to be the poorest and most in need in their poverty assessment. They offer either individual or group loans with a maximum duration of about 2.5 years. They do not charge any interest.

International Fund for Agricultural Development (IFAD)

The International Fund for Agricultural Development (IFAD) is providing its credits through the ACB. Actually, the ACB covers all the credit funds from its regular resources. IFAD and the ACB signed an agreement, that land ownership as a collateral is not necessarily needed and that either 2 personal guarantors or a farmer cooperative could guarantee for the IFAD beneficiaries. IFAD offers 3 types of loans:

1. Long term (10 years) for land reclamation (through de-rocking) and plantation of fruit trees. No limit of the size of the loan. Five years as grace time for repayment.
2. Medium term for the purchase of farm and irrigation equipment, purchase of livestock, machinery, small milk processing, cheese making units, etc. Maximum size of loan: SP50,000.
3. Loans for women's programs, especially off-farm and home-based Income Generating Activities (IGA). Maximum size of loan: SP50,000.

All the other conditions are the same as for the credits of the ACB.

United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)

UNRWA is operating microfinance institutes in the ten Palestinian refugee camps in Syria as well as in the Yarmook district of Damascus. They are lending money exclusively to Palestinian refugees.

World Food Program (WFP)

The WFP focuses on the agricultural settlement zones 3, 4 and 5. They provide loans only to rural women. The following criteria have to be met by beneficiaries:

- Interest in implementing a project
- Women headed household
- Age: 18-49
- No land property

- Permanent resident of the village
- Level of education
- Previous experience in the same field of activity

Loans are agreed for a period of 2 months to 5 years with a maximum amount of SP100,000 and an interest rate of 4.5% per year.

Informal Credits

Informal credit sources beside the formal ones mentioned above play an important role in rural areas. Moneylenders are often the keepers of the village shop or local traders that can link the credit to the purchase of inputs or the sale or outputs respectively. The average yearly interest rate is found to be at 76.6%. Other sources of informal credit are relatives and friends that usually do not charge any interest.

6. Potential Indicators to Calculate the Poverty Index for which Information was Collected in the Formal Survey

Human resources

- Marital status of household head
- Gender of household head
- Age of household head
- Education of household head in years
- Number of wives
- Number of children <4 years
- Number of children <6 years
- Number of girls 6-15 years
- Number of boys 6-15 years
- Number of children 6-15 years
- Number of children <16y
- Number of adults >15 years living in the household
- Child dependency ratio
- Number of girls 6-15 years going to school
- Number of boys 6-15 years going to school
- Number of all children 6-15 years going to school
- % of girls 6-15y going to school
- % of boys 6-15y going to school
- % of children 6-15y going to school

- Number of all household members with at least 6 years education
- Number of adults that studied at least 6 years
- % of adults that studied at least 6 years
- Number of wage laborers in the household
- Number of adult wage laborers
- % of adult wage laborers
- Number of adult household members migrating for work in Syria
- Number of adult household members migrating for work outside Syria
- Number of adult household members migrating for work
- % of adult household members migrating for work

Dwelling

- Number of rooms in the house
- Type of house
- Electricity available in house
- Toilet available
- Value of house
- Number of persons per room

Food and vulnerability

- Number of weeks with food difficulties in the last year
- Days with only bread to eat in the last year
- Meals with sheep meat per month in the last year
- Meals with chicken per month in the last year

- Meals with eggs per month in the last year
- % food expenditures from the total income
- Have relatives or friends that can help them out in case of emergency

Assets

- Total land available (ha)
- Total land owned (ha)
- Total irrigated land owned (ha)
- Total irrigated land cultivated (ha)
- Value of owned land
- Value of owned trees
- Total value of livestock
- Total value of livestock owned by an external investor
- Total value of equipment
- Total value of net assets
- Total value of assets per person living in the household
- Value of buildings other than the house for living

Others

- Member in a sheep cooperative
- Member in a sheep fattening cooperative
- Member in an agricultural cooperative
- Member in a multipurpose cooperative
- Amount of money lent out to somebody

- Agricultural laborers employed by the household (man-days)
- Non-agricultural laborers employed by the household (man-days)
- Total laborers employed by the household (man-days)
- Total amount of loans outstanding
- Total amount of informal loans outstanding
- Village index indicating the public services available in the village

7. Indicators of Well-being and Wealth Classes

Capital	Moderately			
	Very poor	Poor	well-off	Well-off
Natural	No sheep	Few sheep (1-5 head)	Medium sheep flock (20-50 head)	Large sheep flock
	Land less or small land area (1-3 ha)	Small land area (2-5 ha)	Medium land area (15-25 ha)	Large land area Own well and have irrigation
Human	No off-farm work	Only one laborer	More laborers	Income off-farm
	Sick Unable to work		Members working out side Syria	Government employment
Financial	In debt	No cash	No debt	No debt
			Enough cash to run business	Have fattening sheep work
			Own sheep fattening	Sell drinking water
			Work in straw trade	
Physical				Own lorry and/or tractor

Source: Aw-Hassan A., Mazid A., and La Rovere R. (2002) Challenged Livelihoods in the Dry Areas: The Case of Khanasser Valley in Syria.

8. Major Household Types According to their Livelihood

Strategy

Type	Name	Earnings from		
		Crops	Livestock	Off-farm labor
A	Farmers and laborers	X		X
B	Mixed agriculturalists	X	X	
C	Agriculturalists and laborers	X	X	X
D	Laborers			X
E	Herders and Laborers		X	X
F	Herders		X	

Source: La Rovere R. and Aw-Hassan A. (2003) Livelihoods in Transition in the Marginal Dry Areas of Syria: a Study on Land and Resource Users in KVIRS.