



HAL
open science

Jebel Abdel Aziz, socioeconomic assessment.

Geraldine Chatelard

► **To cite this version:**

Geraldine Chatelard. Jebel Abdel Aziz, socioeconomic assessment.. [Technical Report] UNDP. 2008.
halshs-00356885

HAL Id: halshs-00356885

<https://shs.hal.science/halshs-00356885>

Submitted on 28 Jan 2009

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

JEBEL ABDEL AZIZ PROTECTED AREA, SYRIA. SOCIOECONOMIC SITUATION.

Unpublished text.

GÉRALDINE CHATELARD

Methodology

In Jebel Abdel Aziz Protected Area (PA), where the researchers (Géraldine Chatelard and Kate Washington) stayed for three weeks (21st Novembre to 17th December 2007), the tribal social structure was not conducive to residence in one single household, the researchers stayed in the Fire Department but extensively socialised in the evenings with families in several villages. Concerned local authorities (the Department of Agriculture of the Hassakeh Governorate and more specifically the Forestry Department) greatly facilitated our stay and work by providing us with accommodation in the Fire Station at Maghloujeh, a village on the boundaries of the PA. In Jebel Abdel Aziz we opted not to stay with a family for two reasons: on the one hand, we found that the level of poverty was so high that our presence in a household would have put unnecessary economic pressure on our hosts to be able to comply with the local requirements of hospitality; on the other hand, because of the tribal nature of the local society we would have run the risk of being identified too closely with the family or village with whom we would have been staying, therefore negatively affecting our neutrality vis-à-vis the other villagers.

Out of a rough total number of fifty villages or clusters of households (numbering between 13,000 and 15,000 inhabitants), we visited the twenty larger villages (al-Ghara, Saba'a Zlam, al-Hilaliyeh, al-Khazneh, al-Medlajiyeh, Sayed Hassan, Madayneh, Sousseh, Maghloujeh, Dleyan, al-Hazoumiyeh, al-Daoudiyeh, al-Kafra, al-Badi', al-Jafer, Abu Kubara, al-Karan, Sfeyan, Meshrefeh, and al-Murab'a) and conducted interviews with all of the twenty individuals who had been selected by their communities as representatives (*mandub* or *wijah*) in the framework of the PA project. Two thirds of these interviews took a collective form whereby several villagers (men and women) and at times all the heads of households and several spouses in a village participated. We visited an additional twelve households in as many villages. As a whole we collected substantial socioeconomic data about 70 households, understood as extended families numbering between five and fifteen individuals.

We also conducted in-depth interviews with the following officials in Hassakeh:

- The local Director of the National Water Company
- The Head of the Directorate of Water Resources
- The Deputy Head of the Directorate of Animal Production
- The Head of the Directorate of Tourism
- The Head of the Forestry Department

Background

The local population living inside or on the borders of the PA currently numbers between 13.000 and 15.000 individuals. They identify as belonging to the Baqqarat al-Jebel tribe, with one exogenous family group, the Sayyad, who live in one single village and have been socially incorporated into the Baqqarat tribe.

At the time of the Ottoman rule of the area, they used to be mobile livestock herders, moving seasonally with herds of sheep and goats between Jebel Abdel Aziz in the winter and Jebel Mardin (the latter came under Turkish control after the Ottoman Empire was dismantled following WWI) in the summer and were cultivating wheat and barley as fodder along the Khabour river. In addition to

the mountains, the whole Jazireh plain between Jebel Abdel Aziz and Jebel Mardin was their grazing area (based on interviews).

The region of Jebel Abdel Aziz was designated as a forestry area in 1933 under the French mandate at a time when trees were still dense. As agriculture was being promoted by the French in the Jazireh plain and Turkey was preventing the movement of nomads across its border, pasture lands available to the Baqqarat al-Jebel started shrinking and they restricted their movements between Jebel Abdel Aziz (henceforth the Jebel) itself, its piedmont and increasingly limited uncultivated areas in the plain.

Underground water availability from village wells and springs in the Jebel allowed the Baqqarat el-Jebel to diversify their livelihoods by complementing mobile livestock herding with small-scale agriculture. A first village, Khazneh, was established on the northern side of the Jebel in the 1950s. Around the Jebel, there are currently twenty such large villages, and another thirty clusters of farms (*hosh*), generally established around ancient wells or springs.

However a series of factors progressively and drastically reduced the Baqqarat el-Jebel's livelihood opportunities: the widespread development of irrigated agriculture in the Jazireh plain between the Jebel and the Khabour that made land unavailable for pasture (except seasonally on agricultural residues); demographic growth (families are today composed of an average 10 members) and fragmentation of landholdings around villages; the afforestation project started in 1987 under the Forestry Department in several areas along the Jebel¹; the creation, and subsequent enlargement², of the Protected Areas in 1994 on more elevated areas of the Jebel; and finally the reduction of water availability that ensued from the establishment of the PA and from droughts, the latter resulting in the categorisation of the region of the Jebel as a zone 4 where irrigated agriculture is banned and where permits for well-digging is subject to restrictions (see following section).

Local people estimate that the afforestation programme was implemented on 60% to 90% of the lands they used to cultivate³, while the PA currently covers 90% to 60% (depending on where villages are located vis-à-vis the PA) of the lands they used to graze their livestock, fetch firewood, other plants, and water from springs, all these activities having been banned inside the PA.

To relieve economic and demographic pressure, and to look for livelihood and secondary and higher educational opportunities unavailable in the Jebel, several families emigrated to regional urban centers, mainly al-Hassakeh, the seat of the Governorate (*muhafazah*), and Tell Tamer, the closest seat of a district (*nahyeh*). The socioeconomic situation of the families who remained in Jebel Abdel Aziz has deteriorated to the point of reaching extreme poverty. The following section will detail their situation.

¹ Afforestation was started near the village of Maghloujeh that has a perennial spring. The project currently covers 4,800 ha with plans to increase the surface.

² The original size of the PA was 4,220 ha, enlarged in 2002 to cover 8,900 ha (albeit regulations have only been partly enforced in the new area), with future aims to cover 9,400 ha.

³ All the villages south of the Jebel are inside the Forested Area (*mantiqah hirajiyeh*). According to the Head of the Forestry Department in Hassakeh, relocation of villagers has been approved and signed by the concerned authorities but no further plans for implementation have been pursued. This would require the establishment of a committee to identify and allocate alternative state-owned lands suitable for agricultural activities, for example in the area of Ras el-Ain (the head spring of the Khabour). Resettlement decision could be reverted should acceptable alternative livelihood opportunities be found for these communities. Villagers mentioned the possibility of relocation during interviews and, although it is difficult to generalise on such a sensitive issue, we found that many influential individuals were not opposed to it.

Working from five stations around the PA, the Forestry Department currently employs up to 400 wardens (not all from the area as will be discussed below) on a yearly or seasonal basis to enforce bans on grazing, wood and plant collection and hunting in the PA and afforested areas. Violations are severely punished by heavy fines and imprisonment. However, according to the Head of the Warden, a police officer, there were still 344 recorded offences in the last 12 months, mainly related to grazing. It is unclear how many concerned the PA specifically.

Whereas the livelihood of the local community has been critically harmed by projects of environmental protection and forest regeneration and by drastic enforcement measures, so far no viable alternative livelihoods have been provided and no provision was implemented for community management of grazing areas. This, combined with a series of unrelated factors, has created a very high level of poverty.

Existing livelihoods and poverty assessment

It is difficult to correlate objectively impoverishment with the establishment of the afforestation project and PA. However, the prevailing perception among local people is that they would be much better off were they still able to freely use the resources of these areas. In expressing their views, local people give little consideration to the fact that wooding would have probably affected the remaining trees and that grazing and water would not be sufficient for the needs of a growing number of people.

Another commonly-shared view is that the afforestation programme and the PA were established without consultation with the local people, a statement confirmed by relevant officials. Governance issues are indeed critical in Jebel Abdel Aziz where there has been no mechanism to integrate the local community in the decision-making process about environmental conservation to the point that adverse feelings have developed and that there is a reciprocal feeling of mistrust between concerned officials and local people.

Whatever the root causes, the local socioeconomic situation is characterized by scarcity of resources: natural resources (land, water, firewood), food, employment and educational opportunities, cash, etc. The results are extreme poverty, out migration and loss of human capital.

Livestock production

Traditionally, the main income-generating activity of the inhabitants of the Jebel was livestock breeding (mainly sheep and goats). It is estimated that there are currently 30,000 sheep in the villages around the PA.

Just before the PA was established, livestock used to graze freely on vast expanses of land in the Jebel and were watered from natural springs. Outside of the grazing season, they were given fodder or were taken to graze on agricultural residues for a fee. Owners or shepherds would move seasonally to follow the herds. Locals estimate that they used to buy 30% of the yearly amount of fodder, whereas under the current situation they have to buy 90%, the other 10% coming from subsidized fodder distributed by the Ministry of Agriculture (via local Sheep Breeding Societies - *jama'iyat tarbi'at al-aghnam*), or from grazing around villages (pastures have been affected by drought since 2001), including seasonally in afforested sites. The Sheep Breeding Societies have taken loans from the Ministry of Agriculture to buy fodder for their members, however they have proven unable to reimburse the loans.

A direct result of the increased direct costs of livestock breeding is that sheep bred by the communities around the Jebel are no longer competitive on the livestock market. There have been

years during which the costs of feeding and watering the sheep exceeded their market price, or at least equated that price⁴. Sheep are sold in the specialist market in Hassakeh (*bazar souq el-aghnam*) but since they are not being grazed and are costly to feed, they are sold before reaching their maximum weight. Whereas, by the end of 2007, a sheep fattened on feed grown on irrigated lands could sell for up to 6,000 SYP, a sheep from Jebel Abdel Aziz sold for half or less than half of that price. Considering that most local livestock breeders do not own trucks, transportation and the fees paid to middlemen are additional expenses that translate to additional loss of income from the sale of livestock.

Related produce, such as wool, fetch a very low market price (1 kg of wool sells for 30 SYP, and therefore a 1,000 kg of wool does not equate the price of a bag of sugar). The market value of wool has declined considerably in the last few decades now that traditional items such as tents, cushions and rugs have been replaced by houses and manufactured household goods to the point that, locally, weaving is a dying skill only practised by some elderly women.

The only related products with a good market value are ewe's milk and butter that are sold as far away as Hama, a trading center for dairy products from where milk is treated and exported to the Gulf. Although market linkages exist between the Jebel and Hama traders through local intermediaries, the quantity of the production has been reduced following the reduction in the number of sheep.

As a result of the lack of access to natural grazing areas, most households who used to rely on livestock breeding as their main source of income have had to drastically reduce the size of their herds. For example, in the village of al-Ghara, we were told that the largest individual herd was 400 before the establishment of the PA; now it is 70 heads. Only those who have other sources of income (such as a salary from government employment) can still maintain larger herds by buying fodder.

Compelled to sell their herds, households bought instead one or two cows for household consumption of dairy products and for the sale of calves. One cow's food consumption equates to that of forty sheep, this shift was economically viable until cow grazing was also banned within the PA in 2007. Today, the cost of fodder makes cow breeding uneconomical since the production cost of milk is higher than that of the cost of milk bought from the market. Several families, especially in the area south of the Jebel have recently sold their cows or are considering this move. However, cow ownership is not universal. Villages that are located far from the PA, particularly in the area south of the Jebel, still have large herds of sheep (up to 200) and very few have shifted to cows.

Even if today livestock breeding appears to be economically irrational, people find it difficult to make the move to other productive activities all the more so since alternative options are extremely limited in the absence of access to such productive assets as water and agricultural land (see below). Currently, people still invest a large part of their limited revenues in maintaining herds, livestock being considered a security that can be exchanged for cash in case of adversity or for paying the bride price (*maher*). The fact is that households spend the little cash they have in fodder and water to maintain their herds at the expense of other consumptive or productive activities that are considered a waste of capital. Most households prioritize livestock maintenance over water and food consumption for themselves and their families (see below).

Farming

⁴ The breed of sheep bred locally is the *na'amiyeh*, which has a lower market value than the *awasi*. However, the *awasi* requires more fodder to reach market value.

Farming opportunities are extremely limited. Only a small portion of the land surrounding the villages is privately owned, most plots are rented from the State. The whole region surrounding the Jebel is classified by the Ministry of Agriculture and Ministry of Water and Irrigation as a marginal (*hamishiyeh*) zone, or zone 4, falling between the steppe (*badieh*) in zone 5 and agricultural areas in zone 3⁵. In zone 4, irrigated agriculture is legally forbidden and well-digging strictly regulated with the result that cotton, wheat, olive trees and similar cash crops cannot be cultivated. Dry farming or rain-fed agriculture (*baal*) alone is allowed. The main crop is barley (*sha'ir*) for animal fodder but the yield is very low and not enough to cover the needs of the livestock, a situation aggravated by the droughts of the last 7 years that have rendered most of the land unproductive.

Whereas from the 1960s to the 1990s a local livestock owner could expect to maintain his herd on the crop he grew in addition to natural pastures, it has now become impossible because of the droughts and the fragmentation of landholdings: a typical situation is that of a head of household who rented 1,000 dunum from the State in the 1960s and who eventually split this land between his 10 sons; with 100 dunum each, the sons now have barely enough to maintain productive herds even when precipitation allows fodder to be grown.

In some villages, entire orchards of fruit trees and olives have dried out with owners losing their capital investment and their income from production sales. An additional factor that results in the loss of capital is the fact that farmers, for fear of losing their rental rights, continue to pay yearly rental fees to the State (25 SYP per dunum) in the absence of crop production.

Irrigated arable lands, available some 10 to 15 km from the Jebel area, are beyond the reach of the local community in many respects: they are already rented and cultivated by urban-based farmers from Hassakeh or Tell Tamer, rental prices are too high for residents of the Jebel to afford, and so is the capital investment required for the intensive cultivation of wheat and cotton, the two main irrigated cash crops in the Jazireh.

Therefore agricultural production is reduced to a minimum, mainly for consumptive purposes (poultry and vegetable gardens) or as a way to maintain capital (livestock).

Water situation and availability

There is a dire shortage of freshwater and even the supply of hard water (containing high level of calcium) previously available for agriculture and animals is dwindling. Without entering into technical details, a sketch of the situation is as follows.

The Water Resource Department (under the Ministry of Water and Irrigation) is charged with digging State-owned wells and granting permits for privately-owned wells. The distribution of fresh water is the responsibility of the Water Company (*muasasat al-miya'*), a public for profit company under the Ministry of Housing and Public Utilities.

As a whole, the number of freshwater wells inside the Hassakeh Governorate is limited because there is no certainty of finding water in perched water tables (*hawami sathiyeh*) situated 60 m to 200 m below the land surface. The whole region stands above a non-renewable fossil aquifer situated 800 m below the land surface, but the costs for digging artesian wells is extremely high and the water in the aquifer is brackish, and not appropriate for household consumption.

⁵ This classification is based on the level of precipitation that has decreased in the region during the last decade. According to figures provided to us by the Head of the Water Resource Department (*Mudiriyyat mawared el-miya'*) in Hassakeh, the average yearly level of precipitation over the last ten years was 180 mm per year in Dlayan and 228 mm in Maghloujeh, two villages near the Jebel.

Priority for well-digging is given to irrigated agriculture in zone 5, while zone 4 receives less investment from the State. In the area of the Jebel, there exist three State-owned wells along the northern piedmont, at Maghloujeh, al-Khazneh, and al-Ghara, each dug to reach an underground freshwater spring in the perched table. However, the quantity of water is low because the droughts do not allow the groundwater storage to be resupplied. Additionally, the spring at al-Ghara dried up a couple of years ago following explosions carried out by the nearby stone quarries that created landslides (see below).

Even in Maghloujeh, where the quantity of water is the higher than elsewhere around the Jebel and where tanks come to fill up from other areas of the Governorate during the summer, local inhabitants still have to spend on water transportation because the well is not connected to a water distribution network. Rather than sending their daughters to fetch water on donkeys, they prefer to pay a fee to buy from the water tanks operated by the Water Company. The situation is similar in al-Khazneh, where only part of the village has a water distribution network. Only extremely poor families resort to sending daughters to fetch water as it is considered improper to allow young women far away from the houses.

It is, however, possible for communities living in zone 4 to request a permit for digging collective wells (*abyar jami'iyeh*) provided that they are organised as a society (*jama'iyeh*) or as a local committee (*lajneh*), for example a group of 5 households. Around the Jebel, we were told of only three such requests for permits. Although all the permits were granted, in two cases no water was found and the investment capital members of the local communities provided was lost. In all cases, one member of the group that requested the permit was a government employee who was able to take a loan on his salary. The net costs and the risks involved in attempting to dig wells are generally too high to be a viable option for local people to consider on a wider scale.

Several shallow wells (sometimes one in each household) were dug as early as the 1950s at a time when well-digging was unregulated (before 1988). Due to the prevalence of limestone that disintegrates, these wells yield hard water with a high level of calcium (locally, people say that water is bitter, "*murrah*") which is not suitable for human consumption. Water can therefore be used only for watering crops and livestock. However, the vast majority of these wells have dried up in the last seven years.

Finally, once a month or less often, a tank comes from Ras el-Ain to distribute limited quantities of water at subsidised price.

The immediate result of the scarcity of freshwater is that most households have to spend money on buying supplies from tanks that fill up in Maghloujeh. Whereas an eight person household in Hassakeh connected to the water distribution network spends on average 200 SYP per month on freshwater, the same household in most villages in the Jebel Abdel Aziz area spends 600 SYP per month for a much more limited quantity.

As a result of a lack of financial means, the average drinking water consumption is appallingly low and people say that they are thirsty. To the embarrassment of the hosts, even the offering of tea to visitors is not systematic, a clear qualitative indicator of freshwater scarcity in a society where hospitality is considered the highest value.

In 2004, 93% of the Syrian population had access to improved water sources and 90% to sanitation facilities (see UNDP-POGAR statistics and indicators). Inhabitants of the Jebel Abdel Aziz area fall into minority that do not have reasonable access to supply to drinking water as defined by UNDP (www.undp-polgar.org) as at least 20 liters per capita a day from a source (household connections, public standpipes, boreholes, protected dug wells, protected springs and rainwater collection) within

1 km of the user's dwelling.

We estimate that the average daily freshwater consumption per capita is less than 10 litres (including drinking, cooking and cleaning) more than *tenfold* below the national average per capita freshwater consumption (estimated at 130 litres)⁶.

Water is the main issue that local people identify as affecting their livelihoods. They feel unjustly deprived and abandoned by the authorities. This feeling is further reinforced by the sight, in some villages, of hard water being wasted on the ground while flowing from the faucets of the water towers the Forestry Department maintains for the exclusive use of the afforestation project. Local people are fined if they try to collect it.

Nutrition

The very low level of income generation and of subsistence agricultural production has a direct effect on the nutritional status of the local community.

For an average family of 10, a bag of 20 kg flour (costing 650 SYP) has to last for one week. Small quantities of bread and tea are the usual staple, with extremely limited intake of fresh vegetables and fruits and almost no meat except on social occasions. We were told over and over again that spending on fodder for livestock is systematically prioritized over food for members of the household. Food security is not ensured in the community.

With no food aid being provided by the Government, people are hungry and it is easy to detect a high prevalence of chronic malnutrition or undernourishment in children and adults alike, the elderly and particularly elderly women seemingly the most affected.

An additional factor is that the price of gas for cooking is relatively high compared to local means (200 SYP a bottle plus 25 SYP for transportation). Therefore, women strive to use firewood as much as possible. However, access to firewood is restricted inside the PA. Pruning residues from the afforestation project are only available seasonally and in limited quantities, and so are residues from cotton harvest (stem and hull). There is therefore a serious problem of combustible material for cooking purposes.

Housing and sanitation

99% of houses are built of mud with a poor quality of shelter. Mud in itself is a good construction material with excellent insulation capacities, but the insulation of windows, doors and roofs is very poor. During our field visit in November and December 2007, strong cold wind was blowing through the windows protected with plastic sheet and roofs were leaking on rainy days.

Rooms are overcrowded: housing units for an average household of 10 people have two to three rooms plus a kitchen.

There is a near universal absence of sanitation facilities. Only two households out of the 70 visited had a WC located outside the main housing units. Others had no such facilities even outside the houses. People use kitchens as wash rooms and walk outside the inhabited areas to discharge bodily wastes.

⁶ The worldwide standard is 180 litre while basic household water requirements have been estimated at around 50 liters per person per day excluding water for gardens. See *The World's Water: 2006-2007*, Island Press, and www.worldwater.org.

While cotton residues are not suitable for space heating, most households use animal dung as combustible in their stoves. However, dung produces an unhealthy pungent smoke. Most households save on electricity and diesel for stoves and water heating, and several households we visited did not have stoves at all, even in the guest room, and said they were not heating water for washing even in the winter.

Employment and labour migration

Local employment too is scarce. The main source of wage labour is the Forestry Department, which offers yearly jobs as wardens or in the Fire Brigade, and seasonal jobs pruning the trees in the afforested areas or in the Fire Brigade. In the Jebel, the Forestry Department employs 400 people as a whole, only two-thirds residing in one of the villages in the area. The average monthly salary is 5,000 SYP. The village of Maghloujeh has the highest ratio of government employees or pensioners (36) to households (120) in the area, and there is a considerable difference in livelihoods between the two categories. In addition to their regular income, government employees are able to take loans on their salaries to improve their living conditions and are therefore the ones most likely to be able to afford education for their children, better housing and sanitation, freshwater and foodstuffs, the maintenance of a vegetable garden for household consumption or irrigated cash crop, and a productive herd of livestock.

A recurrent request from members of the local community is to be given priority for employment over members of more distant communities. However, jobs in local government departments are allocated through a centralised regional system that is managed at the level of the Governorates under the Ministry of Social Affairs and Work. Civil servants and employees on a short-term contract are appointed according to their entry in a waiting list and not according to the distance of their residences to their places of work. Additionally, people are assigned to government offices that are in need of employees all throughout the Governorate and employees cannot express a particular choice. This being a national system, it appears extremely difficult to adjust it to accommodate the local needs of the residents of the Jebel.

Another factor which directly limits the possibilities for local community members to secure a government job is that, since 2001, the minimum educational level required to apply for a job in the local government is an intermediary school certificate (or a specific skill such as a driving licence), whereas previously employment was open to all individuals who had completed primary education.

Nonetheless, we met several young people (for example holders of a secondary school degree with a specialisation in agriculture) who had graduated more than a year ago and who had still not found employment. More than a dozen girls from the area had also graduated from the secondary school system last year, but with few prospects other than getting a job as primary school teachers. The situation of employment is therefore such that there are few incentives for young people to complete their schooling since they cannot see the benefit of education. Any prospective project of socioeconomic development in the area needs as a priority to develop and utilise locally existing skills.

It is worth mentioning that stone extraction has been carried out in the vicinity of the village of al-Ghara for the last 15 years, with currently nine private and three public companies operating. Stone extraction has not only negatively affected the environment and the quality of people's lives (through explosions, dust and landslides that have caused the freshwater spring to dry up), it has also brought very few employment benefits to the village despite the fact that most of the workers employed on the sites are unskilled.

Another source of local employment is seasonal labour in the irrigated fields of the Jazireh plain where cotton is harvested by hand. This is the preferred activity for women, children as young as 10, and elderly people from the Jebel who pick the cotton in the Autumn. In addition to their wages (based on the weight of the cotton harvested), they can collect cotton residues to feed animals or to use as a combustible for cooking and baking bread. Wheat, the other main cash crop in the Jazireh, is harvested by machines and does not require a high input of manual labour. However, men from the Jebel may work as *murabi'in* (partners) getting 8% of the crop as payment for their capital investment (crops) and their labour.

Wages and profits from agricultural work are highly dependant on the national and international market for cotton and wheat, and remain low, with no security of employment, no health or other social benefits, no retirement pensions, and no possibility for savings and accumulating capital. Families' economic activities are mostly subsistence oriented. Moreover, the absence of enforcement of legal provisions on child labour is an incentive for children to drop out of school and to contribute a meagre income to the household.

Labour migration to more distant agricultural regions in Syria (Hauran, Lattaqieh, Hama and Damascus Governorates were mentioned) and to neighbouring countries (Lebanon and Jordan) is widespread among working age males from the Jebel. Young men from the Jebel mostly work as unskilled labourers in agriculture, construction or in markets (as porters, for example) with very low wages (700 SYP per day in Lebanon, 350 SYP per day in Damascus) that are just enough to ensure their own livelihoods, especially with the rise in inflation over the last few years. The level of remittances to family members in the Jebel appears to be very low, while savings are also limited. We did not come across one single young migrant labourer who had been able to afford to build a house in the Jebel.

Poverty compels some working age and even elderly females to go to the Governorate of Damascus to work as seasonal agricultural labourers to complement their household's income.

Permanent emigration is a recurrent feature of the villages surrounding the Jebel. In one village currently numbering 45 households, during the last 10 years, 15 families had left the village to Hassakeh to find work and livelihoods. A relatively large number of young men settle permanently in cities like Damascus, Hama or Lattaqieh.

Indebtedness and capital

Since the level of income does not allow most households to cover their basic yearly expenditure, chronic indebtedness too is a permanent feature of household economies in the Jebel. Almost every household is indebted, sometimes heavily, which is viewed by all as a normal situation.

Again, there is a marked difference between government employees or pensioners and the other villagers with regards to the type and level of their indebtedness and their capacity to repay loans.

A government employee or a pensioner can take a loan on his salary every four years. Most of the loans taken are for consumptive purchases: a TV set, a refrigerator, a motorbike; building or enlarging a house or paying the bride price for the wedding of a son. Loans are generally repaid.

On the other hand, loans can be taken from the Ministry of Agriculture for investment in livestock or farming, but few individuals can offer enough guarantee on properties or salaries to take such loans.

Local sheep breeding societies have taken loans in the past from the National Union of Agricultural

Societies in order to buy animal feed for the livestock of their members. In all the cases we were told about, loans have not been repaid after several years. The interest rates (up to 25%) prevent livestock breeders from making a profit on the sale of their animals and there is now a general reluctance to apply for such loans.

Another type of loan can be taken from private moneylenders at usurious rates (up to 150%). Several families are similarly heavily indebted to moneylenders and have had to sell their capital (livestock or land) or remove their children from school and send them to work to repay the loans. A typical case would be a farmer owning 70 sheep and indebted to the value of 18,000 SYP, or the value of four adult sheep.

Finally, a very large number of households are indebted to the State for failing to pay rental fees on agricultural lands. Penalties accumulate and movable properties (car, truck, motorbike or tractor) can be confiscated.

Livestock, and sometimes land, constitute a household's capital and the wealth of an individual is measured by the size of his herd. Whereas herd sizes can be increased through investing income in the purchase of animals or by natural growth, local people cannot generally increase the size of their productive landholdings unless they are government employees. The value of land around the Jebel is very low: one dunum sells at 1,000 SYP whereas irrigated land north of the Khabur river reaches 25, 000 SYP a dunum.

One main concern of households is to be able to cover the expenses incurred when marrying off their sons. The average bride price is 150,000 SYP. A young man who works for one year in Lebanon, saving 500 SYP a day out of a 700 SYP wage, can save that amount in one year provided that he does not remit any money to his family. This rarely happens. The most common trend is for fathers to sell plots of land and livestock, and to borrow money from private lenders. In all cases, this results in further impoverishment and indebtedness. Government employees can take up loans at better rates for similar consumptive spendings.

Access to education

Every main village has a primary school. However, several of those were built of mud by the local people at their own expenses and do not have any sanitation or heating.

There are several intermediary schools in a number of villages north of the Jebel, which gives an educational advantage to children who reside there. By contrast, villagers on the southern side of the Jebel are at a clear disadvantage. Families need to spend on private transportation to send school children to Maghloujeh and only a limited number of parents can afford the costs. Only one household out of the 35 we collected data from on that side of the Jebel had a son who continued schooling after the 6th grade. We were told by a schoolteacher that a request for establishing an intermediary school in Sabaa Zlam, the largest village south of the Jebel, had been turned down by the Ministry of Education, possibly on the ground that there was a relocation project for these villages.

Secondary schools are only available in Hassakeh, 40 km to 80 km from the villages in the Jebel, or in Tell Tamer (12 km to 40 km away) and have to be reached by private transportation. Here again, households with a fixed income (Government employees) are most likely to afford the costs of transportation, or to pay for the accommodation of their school-aged children in the city.

In most cases, teachers working in schools in the Jebel originate from the area but grew up in Hassakeh or Tell Tamer where their parents had emigrated. However, there is currently a new

generation of recent high school graduates (including girls), all of them living north of the Jebel, who are likely to be able to take up positions as schoolteachers.

General level of education is low, with only a few young people having studied for two years (diploma) after high school.

Girls are generally less educated than boys because of the local reluctance to let them travel to school on their own, either on foot or by car. Most do not study beyond the 6th grade.

Cost of transportation, of books and uniforms are only one reason why children may drop out of school. Another one is that their labour is needed to complement their households' income. A final one is that there is little incentive to study since a school degree does not offer any guarantee of finding steady employment.

Transportation and communications

Both the transportation and communication networks are poor in the Jebel.

There are two main asphalted roads, one running along the northern side of the Jebel and connecting the area to Hassakeh and Tell Tamer. The other one runs north-south across the Jebel to the village of Sabaa Zlam in the south. Most other secondary roads are either asphalted but not maintained (north of the Jebel), or tracks (south of the Jebel) that get muddy when it rains.

A number of local people own cars or small trucks that they operate as public transportation for a fee. It costs between 50 SYP and 100 SYP to travel from one of the villages in the Jebel to Hassakeh, and 25 SYP from any village in the Jebel to Maghloujeh.

Telecommunications are a major problem. One single house in the whole Jebel has a land line (in al-Khazneh). Although ownership of mobile phones is almost universal among heads of households, coverage is poor. Two third of the villages, namely those located east of al-Ghara and south of Sabaa Zlam, have no mobile network coverage at all.

Access to health care

The only primary health care center for the whole region is located in the village of al-Ghara. It has irregular opening hours.

Access to health care is further hindered by the cost of transportation to medical facilities in the city of Hassakeh and of treatment. Once again, the elderly seem to be the least likely to afford health care.

Another issue is that of childbirth for those women who cannot afford transportation to medical facilities in the city. We were reported a relatively high prevalence of infant mortality at birth or complications for mother and infant when deliveries take place at home. The number of traditional midwives is limited, and no programme has been conducted to train local women in midwifery.

Poor telecommunication network is an additional impediment which prevents emergency cases from reaching medical facilities in Hassakeh since people are unable to call a car owner.

Loss of human capital

The result of the social, economic, health and environmental stress that bears on the local

community is depletion of human capital. Most parents cannot afford to cover transportation and other related costs for schooling their children (girls and boys alike). After they complete the sixth grade in village primary schools the majority of young men work as unskilled day labourers in other regions of Syria or as far as Lebanon and Jordan; children and women (including the elderly) seasonally leave their villages to work as day labourers in cotton farms on the Khabour; their labour productivity is hindered by their nutritional and health status.

Locally, people are economically and psychologically depressed and see no solution to their plight. They demand from the government authorities an alternative or compensation (*badil*) for the loss of natural resources that have come under governmental control. Some villagers south of the Jebel expressed the desire to be resettled on irrigated agricultural lands.

Poverty and lack of access

Based on data collected among 70 households, we estimate that the average household income of non-Government employees is below the US\$1 per day used by the World Bank as a poverty threshold.

By international and national standards, the residents of Jebel Abdel Aziz live in extreme poverty with an unbalanced diet verging on malnutrition, access to and consumption of freshwater well below national averages and international standards, very poor access to educational and health facilities, etc.

Although they identify other reasons for their impoverishment (such as drought, high birth rate, etc.), residents of the Jebel area feel that the main cause of their poverty is the establishment of the PA and afforestation projects that have dispossessed them of their main grazing areas. Members of the local community have good reasons for feeling that the system is unfair, and cannot be expected to feel invested in the PA since no compensation has been provided so far for the loss of livelihoods that resulted from the establishment of the afforestation programme and the PA. One result of this situation is that several members of the local community feel disenfranchised and take their revenge by breaking the rules of the PA. Tensions are known to exist between residents and local authorities and have at times erupted into open conflict.

One striking feature of the relations between the local community and the Forestry Department is the lack of proper communication channels and access to government authorities. As a result, local people feel they are not informed about future expansion and development plans and inaccurate information circulates through rumours. This factor reinforces tensions and feeling of dispossession.