

CEPF funded project – 63257
Determination of Important Areas for Plants
and Creation of Three Plant Micro-Reserves
to Conserve Rare or Endemic Species in Lebanon

- Process Framework -

Sarada Plant Micro-Reserve - District of Marjayoun



View from the slope of Sarada, March 2014 (Hicham Elzein)

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A - Project background

A.1 Environmental context

Country

Lebanon embodies perfectly the Mediterranean priorities in biodiversity conservation. This small territory with complex topography and hydrography shelters a large diversity of habitats and species that are threatened by climate change and human activities. Around 70% of the country consist of mountainous regions, with many steep-sided valleys that run to the sea. The fact that the highest peak of Mount Lebanon, which culminates at an altitude of 3060 meters, is only 30 km far from the sea, illustrates the prevalence of mountains in the country.

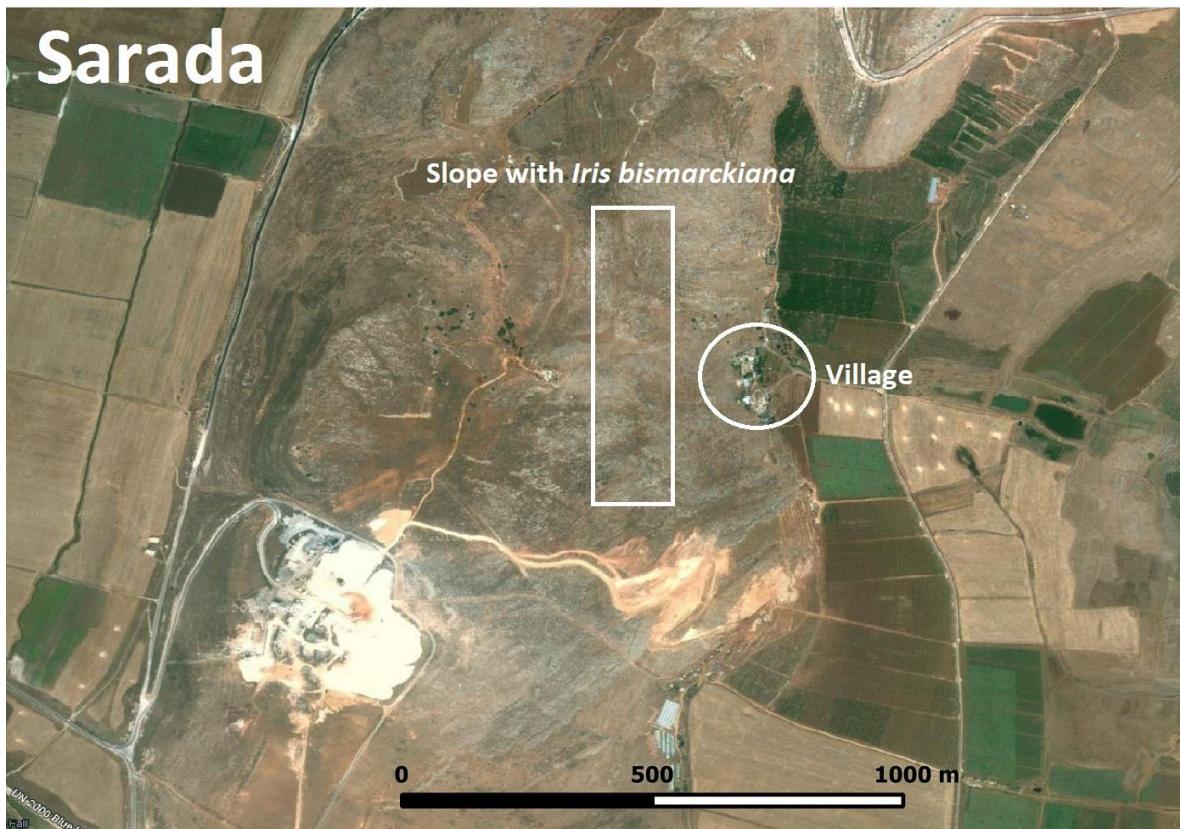
Numerous key zones for species conservation have been identified and are still not included in any existing natural reserves. The project will aim at creating plant micro-reserves on three sites that shelter endemic or rare species or species that are at the edge of their distribution range.

Location of the Plant Micro-Reserve of Sarada

The selected natural site of the Marjayoun District is located in the South of Lebanon, on the southern foothills of Mount-Lebanon, in the municipality of Sarada. Sarada, anciently called Mazraat Sarada (Sarada Farm) is located at only two kilometres of the Blue Line, the border demarcation between Lebanon and Israel defined by the United Nations in 2000. The precise name of the hill is Jabal al-Arid (georeferenced in decimal degree: 33.292046, 35.59737).

It consists of an East-facing rocky slope with scrublands at an altitude that goes from 500 to 600 meters above sea level. There are only four houses and one church in the village. One of the villagers breeds around fifteen cows. A quarry is located South-westwards on the top of the hill. The surroundings consist mainly of fields and almond orchards. Eastwards stands the imposing Mount Hermon.

The site is not quite visited because it is remote and close to the Israeli border. The reason that motivated the selection of this site to create a Plant Micro-Reserve (PMR) is the presence of the only Lebanese population of *Iris bismarckiana*, an iris species endemic to Galilee. The other populations are located in Israel and Syria. The borders of the selected site depend on the occurrence of irises. It was estimated around 15 ha.



Site selected for the PMR



Iris bismarckiana at Sarada in March 2012 (Magda Bou Dagher)

A.2 Economical context and Natural resources

Social, economic and geographic setting of the communities in the project area

The Governorate of Nabatiye is among the poorest regions of the country. In the cada of Marjayoun, 50 to 80 % of the population have low circumstances (Ministry of Agriculture 2004). Many inhabitants depend entirely on agriculture for their living. Except the few villagers of Sarada, many foreign agricultural workers live next to the fields with their families in makeshift huts.

Land tenure

Similarly to the land tenure system in many western countries, the lands in Lebanon can be owned by privates, by the municipalities or by religious entities. All titles of property should be registered at the municipality, or at the central agency for spatial planning. The data should also be accessible to anyone who asks for maps, plot number and name of land owners although in practice everything is more complicated and less transparent. The maps provided to the public are often not very accurate and were hand drawn between the fifties and the seventies, before the civil war. The latter has brought a lot of confusion to the system and many owners were dispossessed of their lands while fleeing the conflict. Moreover many public lands were occupied by privates, built on and never given back to the state (Ladki 2013).

In Sarada all the lands belong to the Church, to the archbishopric of Saida, precisely to the parish of Qulayaa. The lands belonging to a religious entity are called "waqf". Even the four houses were built on waqf lands. The village of Sarada used to be larger and shelter more houses but most of the villagers have fled during the civil war.

Water resources

There is no river on the site but a well nearby from which water is pumped.

Agriculture

In Lebanon, less than a quarter of the labour force takes advantage, directly or indirectly, of agricultural activities and only 7% of the labour force are farmers (Ministry of Agriculture 2004). A characteristic feature of Lebanese agriculture is that most Lebanese farmers do not work the land by themselves but hire foreign workers mainly Syrians. Lebanese agriculture is currently stepping backwards. High costs of input in the production process make Lebanon the least competitive producer in agriculture in the region. Furthermore, the government has always overlooked the agricultural sector (European Union 2011).

The concerned slopes on which the irises grow are not cultivated.



The slope on which *Iris bismarckiana* grows, March 2014 (Magda Bou Dagher)

Grazing system

Herds of goats and sheep are very common in Lebanon and are concentrated in the two ranges of mountains, Mount Lebanon and Anti-Lebanon. Similarly to other mountainous ecosystems, the grazing is organised into seasonal transhumance. In winter, herds graze at low altitude in the valley, whereas in summer time they move to pastures at high altitude, most often between 2000 and 3000 meters. These high places are locally called "jurd" and are mostly uninhabited due to extreme environment conditions. The snow cover lasts on the *jurd* until the beginning of the summer and reappears only in autumn, which allow shepherds to remain there often for more than five months. As for agriculture, the occupation of shepherds is abandoned by Lebanese. Most frequently, Syrian shepherds lead the herds; however bosses who manage the herds and choose the grazing places are Lebanese.

There are a lot of issues between shepherds and landowners. Some private landowners can rent or simply allow herds to graze on their land, which is also the case for lands belonging to municipalities. However it happens that shepherds spot unfrequented lands and graze on them, hoping that nobody will see them.

On our site, the villagers of Sarada use the slopes to let their cows graze.



A flock of sheep grazing on very disturbed rocky lands nearby Sarada, March 2014 (Hicham Elzein)

Forestry activities

In the past, forests covered a much larger area of Lebanon while nowadays it is limited to less than 13% of the country's area. Remaining forestry activities only involve non-timber products while timber is imported into Lebanon due to a lack of trees of sufficient quality for this purpose. Some of the most important forests are included in natural reserves (European Union 2011).

There is no forest in the surroundings of the site. Even the region of Marjayoun and Nabatiye don't shelter much forested areas but mostly degraded and intensively grazed scrublands.

In contrast with rural communities in other countries of the Middle Eastern region, Lebanese knowledge about ancestral uses of local flora species has dramatically decreased as the younger generations show little interest for it and is becoming mainly urban. However, in this region many families use the collect of wild plants to supplement their incomes. The women are often in charge of collecting and selling their harvest.



An inhabitant of Sarada, Abou Gaby, collecting edible plants to make salad, March 2014 (Magda Bou Dagher)

Recreational activities

Hiking activities

No hiking trail occurs in the surrounding.

Hunting

In Lebanon, hunting is a purely recreational activity and does not aim for any kind of subsistence. Officially, hunting has been completely prohibited since 1994, however as with many other laws, it has no practical application and hundreds of hunters can be observed during sunny weekends, tracking globally endangered bird species without being worried. To confuse matters further, other legislation was made in 1997 to re-allow hunting, however this was then repealed.

The region, mainly agricultural, doesn't allow subsistence for large animals. Mainly passerine bird species common in fields and migratory birds are the target of hunting.

A.3 Legal framework

Creating a legal framework for the reserve

The micro-reserve will require its own legal framework in order to have natural habitats and flora preserved and respected by locals and visitors. The objective is to make sure that no house or road will be constructed on the site. The laws should be discussed with the members of parish of Saida to get their approval.

Currently applied laws

Officially no exploitation of the plots is possible as they belong to the Church.

Plant Micro-Reserve designation in Lebanon

Unfortunately, creating a new kind of protected areas in Lebanon would have taken years because of the slowness of the administration. The Ministry of Environment (MoE) himself advised us to choose among the existing designations of protected areas to ensure the protection of our sites. There are three types of designations for protected areas in Lebanon:

-Natural Reserve: the most complete protection to ensure the respect of environment at every level. All lands designated as natural reserve become almost property of the State and the MoE takes in charge every aspect of the protection. Any monitoring committee in charge of the reserve should therefore be funded by the MoE. The laws that apply to the natural reserve are very strict as in Europe and prevent any kind of disturbance.

-Natural Site: Almost the same as the natural reserve, however the legislation can be very light and unbalanced. Many protected sites can have reduced areas and the legislation does not aim at protecting nature in itself. For example a church or geological sites can be protected under this designation. The legal framework is defined by the landowners, the municipality and the MoE, and can be very different depending of the type of the site.

-Hima: « *Hima* » means protected in Arabic. It is a traditional system for monitoring the exploitation of natural resources within a small region, a village and its surroundings for example. It aims mainly at monitoring the date and the period of grazing and the quantity of harvested wild plants and hunted animals. At the moment, the municipalities are the main managers in this kind of protected area.

A.4 Threats

The concerned site, as any other natural site in Lebanon, is under many threats. Housing and roads construction is the most important threat that is ongoing in the country. Nevertheless, as the lands belong to the Church, there is no construction project on our site. Many orchards and fields in the surrounding are also owned by the Church and rent to farmers.

Another major threat is quarries. Quarries are very common in Lebanon and totally lack spatial planning. They can be observed anywhere and they totally destroy natural habitats and disfigure the mountainous landscape. A quarry is located just above our slope but it doesn't belong to the Church.

Grazing could be considered as a threat, however the farmer who owns the cows told us that they don't eat iris.

During the flowering period, a few people harvest the flower to decorate their houses. They mostly remove the flowers which don't last longer than three days.

Many plant species present on the site are collected by locals for food or medicinal uses, including the famous oregano (*Origanum*) and sage species (*Salvia*) which are both intensively harvested on

this slope, especially by foreign workers living in the surroundings. The locals told us that they kept on chasing the foreign workers when they were caught harvesting wild plants on their slopes.

The massive use of pesticide in this agricultural region is a threat to the pollinators of *Iris bismarckiana* and therefore to the longevity of the species. The plant is mainly dependent of few insects for its pollination, particularly on a species of wild bee. This subject should be broached with the farmers to have them reducing the use of pesticide or using less harmful substances.

Finally a reforestation project lead by a NGO was planned by the Church to plant stone pines (*Pinus pinea*). Reforestation campaign efforts have been recently increasing, however they must be relativised in terms of biological quality as only profitable economically species are planted. Often the planted areas do not correspond to the rehabilitation of natural forest habitats because the municipalities or landlords prefer to plant pine stone instead of other indigenous tree species. The planted forests though consist of homogeneous pine stone forest with poorly diversified understorey flora. We negotiated the abandonment of this project to protect the irises.

B. Participatory implementation

B.1 Potential Impact of the micro-reserve creation on local livelihoods through involuntary restrictions

At present, the site is partly used for the livelihoods of the local community, mainly for grazing, and secondarily to get few herbs. The micro-reserve creation should not have any negative impact on the local community as it does not restrict their access to natural resources. If the PMR is created, the cows will be allowed to graze and the locals to harvest their edible or medicinal herbs. As explained above, the cows don't feed on irises and the harvest pressure on wild plants doesn't target irises. No agricultural activity takes place on the rocky slope. The site is also not involved in any wood exploitation as slopes are covered by scrublands.

Regulations have already been issued by the Ministry of Agriculture to regulate collection of medicinal and aromatic plants. The first decision of February 1996 prohibits the export of aromatic plants whereas the second allows export but restricts the collection period and recommends good practices for harvesting sustainably (Ministry of Environment 2001).

B.2 Stakeholders, participation and decision-making

After one year of negotiations with the different stakeholders of the three PMRs, we realised that they were afraid of putting their lands under a kind of designation that would not allow them to build or exploit them in the future. Moreover, getting on with each other about the notion of protected areas is difficult as some locals consider the designation of the protected areas as temporary and think that they would be able to remove the designation whenever they change their mind.

In October 2014, when we decided to adopt the designation of “natural site” for the three PMRs, there was a sudden turnaround: all the stakeholders from the different PMRs admitted that they refused any kind of protected areas that would involve the government. They consider it as an expropriation and they see the government as a threat that has been exploiting them since decades and that has never done anything for them. Every community in Lebanon is not comfortable depending of the government due to political instability, unforeseen development in the government and confessional partition.

We considered our first meeting in Sarada as very successful and we were pretty confident that things would have progressed more quickly than on the two other PMRs. We contacted the archbishop of Saida, Chakrallah s.j., to identify who was in charge of the *waqf* of Sarada. He directed us towards the parish of Qulayaa and to its vicar, Mansour Hokayem s.j.. Due to the difficulty to communicate with Mansour Hokayem over the phone because of his deafness, we were also given the contact of Jacqueline Hokayem, his niece who works in the NGO Caritas. From this moment, Jacqueline became our main, rather unique, spokesperson.

On the 28th of January 2014, we had this meeting at Sarada with the vicar and his niece and we visited two of the four local villagers, the families Jabbour and Geryes. We discussed about our project of preservation and showed them our targeted species which they knew already well. They did not know about the rarity of this species of iris, however they were convinced of the necessity to protect it and to showcase it as a natural patrimony. Then we discussed for a long time about the legal framework. The villagers were complaining about the intrusion of the foreign workers to harvest wild plants on their lands. Finally, we all agreed that there will be no restriction to the access to the site and that only a short trail and an explanatory board will be placed for visitors.

We were promised to be given a precise map of the locality made by the topography of the Church within few weeks. This map would show the area of the plot and its number, which are data necessary to introduce the application for the designation of a protected area.

However, until now, we didn't receive any map and every time we try to contact Jacqueline, she evaded. Indeed, she had harsh personal circumstances with death among her close family members, including her father. Every time we contacted her, she would postpone the submission of the map. Finally in October 2014, she just admitted that the Church council didn't want to put their lands under any designation that would involve the state and that they wanted to remain the only decision-makers on their lands.

Recently, we discovered that a colleague of us who works at the Saint-Joseph University could become a useful contact to negotiate at least with the local community of Sarada has she knows most of them personally. This way will be explored more deeply in due course and other negotiations will be rekindled in January 2015 directly with the archbishop of Saida.



Meeting of the 28th January in Sarada, in the house of Abou Gaby, from left to right: Hasmik and her husband Abou Gaby, the vicar Mansour Hokayem (Mahmoud Al-Qarout)

B.3 Public communication

All villagers of Sarada are informed about eh project further to our visit in January 2014 and are all positive about it. We want to set up a simple signalization on the site with an explanatory board displaying the reason for the creation of the PMR and the biological features of *Iris bismarckiana*.

C. Criteria for eligibility of affected persons

No person will be affected by the project as the creation of the PMR is not going to bring any change to the current situation of the site.

D. Measures to assist the affected persons

As no one is affected by the creation of this micro-reserve, no system of assistance was set up. The villagers of Sarada could even benefit of the micro-reserve as it is going to bring visitors to the village and to preserve the natural patrimony.

E. Conflict resolution and complaint mechanism

One inferred conflict could be that some villagers refuse the visit of strangers in their neighbourhood. As in many other places in Lebanon, locals are very suspicious about strangers (in the sense external to the village) and could be hostile to visitors. However until now, all villagers are very positive about the PMR.

In case a conflict arose as a consequence of the project, and could not be resolved locally, stakeholders would be informed that they can file an official complaint, first to the Executive director of CEPF, or, should the problem not be solved, to the World Bank. All procedures included internet website to use to file complaints, would be provided to stakeholders by the project team.



A dog of Sarada keeping an eye on the site, March 2014 (Magda Bou Dagher)



Typical landscape in the region of Marjayoun, with snow covered Mount Hermon, March 2014
(Hicham Elzein)

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