

EUROPEAN FORUM ON NATURE CONSERVATION AND PASTORALISM (EFNCP)

Report on

**Building an enabling environment for pastoral sustainable
rangeland management through enhanced local-level advocacy
based on sound knowledge management on the impact of
current policies on pastoralism**

The SAMI project – a project for the marketing of mountain agriculture products in Switzerland

European Forum on Nature Conservation and Pastoralism EFNCP

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Summary

The general aim of SAMI project (Schweizer Alpbetriebe – Marketing Inventar, translated into English Swiss Alpine farms – marketing inventory) is to preserve the mountain areas as a space for life and economy. It aims at showing how farming and tourism interact, and both guarantee for jobs and thus contribute to prevent the exodus from the Alps.

More than one quarter of the surface of Switzerland is made up of mountain areas, with agriculture, forestry and tourism as the three main economic activities. Much of the tourism takes place in agricultural land or forests.

Although there are some legal texts specifically designed for mountain areas much of the mountain related legislation is included in the general Swiss legislation. Many Swiss cantons have their own legislation. The Swiss mountain policy aims at both the protection of nature and the people's right to an adequate socio-economic development. This is reflected in federal and cantonal laws. It is also very much reflected in the International Alpine Convention that aims at the protection and sustainable development of the Alpine Region. This international agreement has been signed and ratified by Switzerland, but the country has not yet ratified the various protocols that make it a strong instrument. So, it does not yet have all its ecological possible impact on mountain agriculture. All the schemes involving compensation payments are coupled with management plans for the farms, worked out with specialists and that have to be applied precisely. The study gives an overview of the main legislation.

The 1990' were an important time with the decoupling of payments from production and with the introduction of special payments for mountain areas. With a more direct marketing of the products from mountain agriculture, its importance became known in regional population; its ecological

value was recognized and the rich landscapes attracted increasingly more tourists. These factors lead to a regain of interest and enthusiasm amongst the mountain farmers themselves, thus proving that they are not retrograde people as they had long been considered.

The inventory of Alps, the main output of the SAMI project, is primarily a databank, most of which can be viewed on a website (<http://www.alporama.ch>). The databank is to be used for advocacy of Alpine farming, especially cheese production, for the marketing of these products, for research on Alpine agriculture and for tourism. So far, the databank covers mainly canton Berne, with some neighbouring Alps in other cantons. The information on individual farms is also presented in books that can be used as field guides when visiting the area. Many details of the inventory are presented in this study.

Although nature or biodiversity conservation are not the main aims of the project, they play an important role, through the application of agricultural legislation (partly specific to mountain areas) that is very much ecology oriented, through AOC (registered designation of origin) regulations for Alpine cheese which imply good ecological condition of the area of production, and through the tourist valuation of the area, tourism depending very much on landscapes with a sound ecology.

An exact replication of the project will probably not make much sense in many regions: a website has no use in places where the internet is not well developed. But the idea of presenting individual farms in a way to attract visitors and to market the products can be achieved in other ways: e.g. books (as in the SAMI project), booklets or leaflets. In regions where ecology is not implied in legislation, it could intentionally be made part of the project.

Agricultural policy in Swiss mountain areas

A good part (more than one quarter) of the surface of Switzerland is made up of mountain areas. The three main economic activities in the mountains are agriculture, forestry and tourism. Much of the tourism takes place in agricultural land or forests; proportionally little land has been actually urbanized.

Sustainable mountain development in Swiss mountain areas has a long tradition and special significance: natural disasters – avalanches – have shown how important it is to have forests at the right place and to manage grasslands carefully. Switzerland has a great deal of mountain experience, and many instruments that can be applied to mountain regions elsewhere in the world. For quite a few years, the country has been promoting and implementing sustainable mountain development internationally. Since the Rio 'Earth Summit' in 1992, Switzerland has played an active role in addressing issues related to sustainable mountain development at global level. (Information about these issues may be found at:

<http://www.mountainpartnership.org/members/countries/europe/Switzerland.html> - The Mountain Partnership is supported by a Secretariat, which is hosted by the [Food and Agriculture Organization of the United Nations \(FAO\)](#) and financed through contributions from the governments of Italy and Switzerland).

Legislation relative to mountain areas

General aspects of legislation

Several European countries have specific legislation for their mountain areas. Switzerland has some mountain specific texts, but much of the mountain related legislation is included in the general Swiss legislation; this might be explained by the fact that a large part of Switzerland is mountain area.

Another Swiss specific aspect is that Swiss cantons have their own legislation. This must conform to the federal legislation, but may go farther in various aspects.

The Swiss mountain policy aims at both the protection of nature and the people's right to an adequate socio-economic development. This is reflected in federal and cantonal laws.

Some mountain specific legal instruments are the Federal Act on Aid to Investment in Mountain Regions (901.1 dated 1997). Its aim is "to foster the economic competitiveness of mountain regions, facilitate the exploitation of their potential, conserve their socio-cultural features, guarantee their sustainable development and strengthen cooperation between mountain municipalities, sub-regions and regions (art.1).

Two others, more socially oriented, are the Federal Mountain Region Housing Improvement Act (844 dated 1970) which provides financial help to households and the Federal Family Allowances in Agriculture Act (836.1 dated 1952, less specifically concerning mountain areas).

Besides these Federal tools, the cantons may have their own ones.

The Ordinance on the Cadastral Survey of Agricultural Production and Area Demarcation (912.1 dated 1998) is the necessary legal instrument to determine what is a mountain area so that the other tools may be applied correctly.

(Information partly taken from: Villeneuve, A., Castelein, A. & Mekouar, M.A. (2002) Mountains and the law – Emerging trends. FAO legislative study 75)

Federal law on agriculture

Switzerland is made of 26 cantons. With the first constitution of the country (1848), agriculture was completely ruled by the cantons.

In bold aspects that are of specific ecological importance

Italic aspects that are specially relevant for mountain agriculture

Bold and italic aspects that are important for both mountain agriculture and ecology

Year	Name of law	Comments / impact
1848	First constitution of Switzerland (Swiss Confederation)	Agriculture is ruled by the cantons, not the country
1877	Report of a commission of the Swiss National Council (Parliament)	Agriculture needs more and more subsidies, and the cantons cannot afford these any longer (some poor cantons have a lot of agriculture, some rich ones have very little). The report asks for a research station to investigate the quality of seeds and fertilizers a lot of irregularities having been noticed in these products.
04.12.1883	Message of the Swiss Federal Council concerning the improvement of agriculture (lead to the Federal Decree on payments to agriculture, 1884)	The Federal Constitution of Switzerland dated 1848, and revised 1874 does not directly mention the promotion of agriculture in any way. A commission of the Federal Council studied the situation of agriculture in Switzerland and compared it with that of other European countries. The result was that Switzerland was the only country in Europe where agriculture was ruled entirely by the regional governments (the cantons); in all other countries agriculture was ruled on national level. The commission proposes a series of measures to promote agriculture on the Federal level. These measures were to be accepted in the Federal Decree of the following year.

27.06.1884	Federal Decree on the promotion of agriculture by the Swiss Confederation (i.e. on national level)	<p>This decree concerns mainly subsidies which the Swiss Confederation may pay for the promotion of agriculture (on top of what the cantons already pay) for:</p> <ul style="list-style-type: none"> • Research stations • Teaching • Animal breeding • Soil improvement • Measures against damage to crops • Agricultural cooperatives and societies
28.11.1892	Message of the Swiss Federal Council concerning the revision of the Federal Decree of 27.06.1884	<p>The Federal Council makes several proposal to the Parliament to revise the Decree on the promotion of agriculture of 1884:</p> <ul style="list-style-type: none"> • That it should find ways to decrease the land debts or the farmers. • That it should be made easier to the farmers to apply to subsidies for soil improvement. • That the Confederation should more efficiently promote certain parts of agricultural education. • That the farmers should have access at lower prices to artificial fertilizers (already at the end of the 19th century!). • The revision should also concern other financial aspects and find subsidies for the farmers. <p>Finally, the proposal of a farming law / Agriculture Act is made.</p>
22.12.1893	Federal Act for the promotion of the agriculture by the Swiss Confederation.	<p>This is the first law ruling agriculture on the Federal level. It is still not based on an article in the Swiss Constitution; but it gives the power to the country to take decisions about agriculture rather than leaving all that to the cantons.</p> <p>All the points mentioned in the decree of 1884 and in the proposed revision of that decree of 1892 are included. The Federal Act in fact comes instead of the proposed revision of the decree.</p> <p>This law still is mainly about the finances allocated to agriculture.</p>
19.10.1928	Federal decree about a provisional aid to reduce the agricultural depression	<p>The Swiss agriculture was in a bad crisis then, and special subsidies had to be made available to the farmers especially for the wheat.</p>
05.10.1929	Federal Act to revise the Federal Act on agriculture of 1893	<p>In this revised agricultural law mountain agriculture and small farms are for the first time specifically mentioned and special help has to be made available to them.</p>
24.02.1939	Message of the Swiss Federal Council about the extension of the	<p>One of the problems is the over-production of butter and meat, and the problems to export these products (partly because of the war</p>

	extraordinary help to agriculture	<p>situation). Milk and meat products are subsidized by the country, which encourages the farmers to produce more.</p> <p>This message is about diversifying agriculture. It is also about marketing Swiss cheese abroad.</p>
09.03.1944	Report by the Federal Council concerning the constitutional basis of the new agricultural legislation.	<p>Subsidies are again the main discussion point, but much emphasis is given to mountain agriculture (a.o. appropriate cultures have to be found for mountain areas, the marketing of products has to be improved, the exploitation methods have to be improved). Another point is the reparcelling of agricultural land (in order to provide larger fields which may be more efficiently worked on [but also were an important reason for the loss of biodiversity in agricultural land]).</p> <p>According to the new agricultural legislation, agriculture will have to be more efficiency oriented with the use of appropriate technical means in order to reduce the costs of production. At the same time the law intends to prevent the exodus of farmers and to retain the numbers of employed people in agriculture [which will be a paradox with the reduction of the costs of production and the use of appropriate technology that will automatically reduce the number of people affected to the work].</p> <p>Special subsidies will also be made available for the restoration and construction of agricultural buildings.</p> <p>There will also be new legislation to protect the national production, with import taxes and similar measures.</p> <p>The new agriculture Act will be based on a specific article in a revised form of the Swiss Constitution.</p>
28.8.1945	Botschaft zur Rev. Des Wirtschaftsartikels 31 bis Abs. 3 b	Verfassungsgrundlage LWG
03.10.1951	Federal Agriculture Act	<p>This is the first agriculture Act that is based on articles of the Swiss Constitution (which gives it more importance than when it was just enacted by the Federal Council).</p> <p>The Federal Council may now edict ordinances to make more detailed on agriculture.</p> <p>All points from the former law have been kept, but are now much more precisely described.</p> <p><i>Mountain regions are taken particularly care of, and the Federal Council has to determine exactly what are mountain regions. To encourage mountain farmers, special</i></p>

		<p>subsidies will be made available for the creation of model (pilot) farms in mountain areas and for farm equipments.</p> <p>Livestock breeding in mountain areas will also be encouraged.</p> <p>Without regard of cantonal payments, the Federal Council may fix Federal subsidies for land improvement as high as up to 50%.</p> <p>Special Federal payments are also available for the construction of buildings on Alps (including small cheese factories).</p> <p>Normally, the cantons have to pay at least as much in subsidies than the Confederation; this rule does not necessarily count in cantons with high percentage of mountain farming.</p>
November 1991	Alpine Convention	<p>Signed by most countries of the Alpine arc (including Switzerland) but not ratified yet (See under 16.12.1998 for details).</p>
27.01.1992	<p>Message by the Federal Council concerning the modification of the Agriculture Act:</p> <p>1st part: Agricultural policy with direct compensatory payments.</p> <p>2nd part: Professional training.</p>	<p>1st part compensatory payments: The Federal Council (FC) proposes two types of direct payments:</p> <ul style="list-style-type: none"> • General direct payments, not linked to production (aiming at a policy to improve farm income) or for providing services or activities of public interest. • Direct payments for farming systems that are environmentally beneficial. These would depend on voluntary contracts between the farmers and the administration. <p>This project of compensatory payments is mainly the result of several interventions made at the Parliament aiming at a more ecological agriculture, and also of the two popular initiatives (mentioned below under 19.08.1992).</p> <p>2nd part Professional training: The first legal texts about the training of farmers dates from the early 1970s, and they should be amended now after the progress made in agriculture and in training since then, which is what the FC does now.</p> <p>The FC proposes to amend the Agricultural Act consequently to his proposals concerning payments and training.</p>
13.05.1992	<p>Message by the Federal Council concerning subsidies for livestock keeping in mountain regions / Message relatif au financement, en 1993 et 1994, des contributions aux frais des</p>	<p>In mountain areas, payments the farmers receive for livestock keeping are the main compensatory payments farmers on less favoured areas receive. Until 1992 these payments depended on the number of animals in a farm. The new agricultural policy aims for direct payments to the farmers, decoupled</p>

	détenteurs de bétail de la région de montagne et de la région préalpine des collines.	<i>from production. This is a first step towards an ecologically more responsible agriculture: to prevent intensive production systems. This decoupling is to be started now with mountain farmers.</i>
19.08.1992	Popular initiative "for a more competitive and ecologically more respectful agriculture" & popular initiative "for a more nature compatible agriculture"	These two popular initiatives were real signs, coming from the general Swiss population but also from part of the farmers themselves, to aim for a more ecologically compatible agriculture. The two initiatives had to be presented to the Swiss people for voting, together with a counter project by the Federal Council who didn't want the initiatives to pass. The two initiatives failed to pass. But they had an influence on the last revision of the Agriculture Act (of 1998).
09.10.1992	Amendment of the Agriculture Act	The law has been amended according to what was proposed by the FC (cf. Message of 13.05.1992). The important new thing is the decoupling of payments to farmers from production that opens doors to a more ecologically sensible agriculture.
29.4.1998	Revision of the Agriculture Act / Révision Loi fédérale sur l'agriculture LAgr / Revision BG LW ???	This is the last revision of the law, and it is still valid now. Details are presented further down. This law is now very much ecologically oriented, as a result of pressures through the popular initiatives, but also as a general evolution in agricultural policy. This positive evolution certainly is the result of diverse pressures (also in the form of motions in the parliament) but it is hard to tell how exactly the process went.
16.12.1998	Ratification by Switzerland of the Alpine Convention.	<i>Switzerland ratified the Convention, but none of the important protocols that make the strength of the Convention. These will have a serious influence on the Alpine agriculture. The main aim of the Convention is the long-term protection of the Alpine arc and sustainable use of its resources. It has an impact on all economic activities in the Alps: tourism, forestry and agriculture. It also has an impact on the sovereignty of the cantons. So far, neither the mountain farmers nor the cantons have accepted the protocols, and Switzerland is still in discussion with the other Parties to the Convention to find solutions.</i>

Much of the mountain agriculture is ruled by the general Federal Agriculture Act (910.1, last revision dated 1998) and its ordinances. This law is the result of more than 100 years of legislation in agriculture, the first law dating from 1893.

The first law from 1893 was revised in 1929 after an important exodus had started in mountain areas and was to take into consideration specifically the needs of mountain farmers and of small farming enterprises in general. The main aim of that law was to guarantee adequate agricultural production and livelihood for the farmers. The law was then revised several times, the last revision from 1998 including very much the aspects of sustainable development and nature conservation; it also contains some specific paragraphs concerning mountain areas.

Decoupling was introduced in Switzerland in 1992 with the revision of the Federal Agriculture Act. This means that payments to agriculture were to be decoupled from production. This allowed for the introduction of more ecological aspects to be introduced into the Swiss agriculture policy.

Several ordinances were then attached to this law: on general Direct Payments in 1998, on Ecological Quality (Ecological Contributions) in 2001, on the Cultivation of Fields in 1998, revised in 2001, and on the Summering of Livestock in 2000.

General direct payments

The Direct payments are available to all farmers who comply with certain basic conditions. There are a set of qualifications a farm or farmer has to fulfil to receive these direct payments. These refer to the size of the farm, the work needed to operate the farm, the age of the farmer and the percentage of work he himself and his family does. Direct payments are also linked with well defined ecological requirements. There are several types of general direct payments.

Some are known as general direct payments:

Art. 72: Surface payments.	These are general payments paid to farmers for what they do of common interest on their land. It is not especially aimed at ecological aspects. Its ecological value is that without these payments many farmers would stop working certain areas that are of less interest economically, and encroachment with shrub would then start and certain especially strong herbal plants would compete with weaker ones, thus diminishing the biodiversity of grasslands (the high grass would also increase the risk of avalanches).
Art.73: Payments for livestock feeding on coarse fodder.	It is difficult to import fodder to mountain areas, so it makes sense to feed the animals on local fodder; but to collect fodder on steep slopes is very labour intensive, and many farmers would not do it any longer if they didn't receive some extra payments for it. To have livestock in the mountains is also quite labour intensive, especially when one has to take the animals in during bad weather. This has clearly the effect in mountain areas that farmers will continue using steep pasture land or land that is far from the farms. The ecological benefit is the same than just above: prevention of encroachment with shrub, prevention of loss of biodiversity through competition by strong herbal plants.
Art. 74.1: Payments for the keeping of livestock under difficult production conditions (partly specifically in mountain areas).	This has the same ecologically positive effect than the two cases above.
Art. 75: Payments for cultivated land and vineyards	This payment also applies to hay fields that are, especially in mountainous areas, of high ecological value.

on steep slopes (more than 18% decline).	
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Others are called direct ecological payments:

Art. 76: General ecological payments are available to farmers who apply production systems that are especially respectful of nature and environment.	The idea is to produce in an ecologically sound way on as much as possible of the agricultural surface.
Art. 77: Special payments exist for summer pastures, and especially for activities that favour nature and landscape protection on these pastures.	This article is of special importance to mountain agriculture and prevents the abandonment of high altitude pastures, thus preventing the encroachment with shrub in the lower parts, and the impoverishment of grasslands higher up.

Special ecological compensation payments

On top of the direct payments, farmers may receive special ecological compensation payments. These payments may be received for extensive meadows, hedges, groves, wooded banks, fallow land, extensively cultivated stripes, and high trunk fruit trees. These surfaces must be on the cultivated land and must be mapped. Agrochemicals are not allowed or only on individual plants. The period of grass cutting is prescribed for meadows, depending on altitude. The size of surfaces of fallow land, the duration of the fallow and the time of cutting are defined, depending on the type of fallow. The management of extensively cultivated strips is also defined precisely.

The Federal Agriculture Act has other mountain specific paragraphs:

These payments have no direct ecological beneficial effect, except that they are another measure to prevent the abandonment of mountain regions that then would have the ecologically negative effects mentioned several times above (encroachment with shrub, loss of biodiversity in grasslands).

- Art. 80.2: To benefit of social accompanying measure in form of payments, farms must comply with certain criteria, such as the amount of labour necessary so that a farm is being considered viable. The amount of labour may be lower in mountain areas than in the plain.
- Art. 87.1b: special consideration is given to mountain areas concerning the allocation of investment loans to improve economic and life conditions in the mountains.
- Art. 89.2: (Similarly to Art. 80.2) To benefit of payments to improve the structure of a farm, farms must comply to certain criteria, such as the amount of labour necessary so that a farm is being considered viable. Here again, the amount of labour may be lower in mountain areas than in the plain.
- Art. 93, 94,95 and 96: Mountain farmers may also get special allowances for the management of their farm buildings.
- Art. 106 and 107: Mountain farmers can also have reimbursable credits at especially favourable conditions.
- 138: Special credits are available to make the information on mountain agriculture available to a larger public by specialized people. This is a very important point because it may help a lot in the marketing of products from mountain agriculture.

This information on the legal aspects was important to understand the policy about mountain agriculture in Switzerland, which is the base to the SAMI project.

Implementation of the agricultural policy

For the various schemes involving compensation payments the farmers have to design precise farm management plans. These are worked out with specialized consultants. In these plans the management of any piece of land that is included in a scheme is described precisely. In ecological compensation payment, each field or pasture has to fulfil a certain ecological aim: the protection of certain plant or animal species usually of the preservation of a certain landscape. The tasks to be accomplished are then defined in function of the aim: number of animals allowed to graze, time and duration of grazing, time of mowing. The grazing pressure that is permitted for certain aims to be attained is known for most types of grassland; so it is possible to provide precise figures on the number of animals permitted. If the farmers don't apply these plans exactly, there will be deductions in the payments.

The processes that lead to the changes in the importance of mountain agriculture

The Swiss agricultural policy started to change notably in the late 1990' with the legal decoupling of national and cantonal payments to farmers from production and with the introduction of special payments for mountain areas. The importance of mountain agriculture was also being recognized more and more then.

The products from mountain agriculture – especially derivatives from milk – were sold on markets in the lowlands and the interest for them grew. The ecological value was also more and more visible, as the more and more intensively managed grasslands from the lowlands lost their ecological value. The value for tourism also grew, with more and more people wanting to get away from the big tourist centres. Tourists also got interested to the way of life of the mountain farmers (the idea of going back to ones roots!). And, the people spending their holidays in the mountains wanted to buy the products they could find, which lead to the on-farm selling of cheese and other milk products, and even meat in some places.

All these factors lead to a regain of interest and enthusiasm amongst the mountain farmers themselves. It also encouraged new initiatives, such as many of those found amongst the actors of SAMI.

At what level did the change occur

The changes that lead to a more ecologically compatible agriculture occurred at several levels. The biological degradation of the agricultural landscape was certainly an important starting point, on the level of the people who walked through these landscapes, on that of scientist and NGOs who warned about the loss of biodiversity, and also on that of certain farmers who simply realized what they had lost when comparing the land they had now with what it used to be earlier on. Policy took the path and legal instruments were adapted or provided to allow for payments to encourage the farmers towards a more sustainable agriculture.

In the 1980s and 1990s there certainly was an important "anti-globalisation movement" amongst producers, consumers, farmers associations (e.g. the SAB) and nature conservation NGOs at the same time. These most probably had an impact on the change in legislation in favour of mountain agriculture. About 3/5 of the Swiss grasslands are in some way unfavourable (too high, too steep or on shadowy northern slopes) and their product could not be sold at a competitive price. Because of their indirect economic value (prevention of avalanches, touristic importance) and ecological importance public subsidies were made available to ensure their viability. Without

these, many more farmers would have given up their farms, with the ecological consequences already mentioned earlier.

Overview of SAMI project

The Swiss study is about a project called "Schweizer Alpbetriebe – Marketing Inventar SAMI" The project was initiated by the SAB Schweizerische Arbeitsgemeinschaft für die Berggebiete (which may be translated as Swiss working group for mountain areas) in cooperation with the SAV Schweizerischer Alpwirtschaftlicher Verband (in English Swiss association for Alpine economy) with the main aim to secure the future of Alpine regions, especially referring to a sustainable dimension from the economic, ecological and socio-cultural point of view.

The general aim of the leading partner, the SAB, is to preserve the mountain areas as a space for life and economy. In the globalisation trend of the world economy, with free market, mountain areas are in a quite disadvantageous situation, with long distances to market the products, unfavourable soil topography for farming and rough climate. All these factors have an impact on the income of mountain farmers, and this on their enthusiasm to continue their work, and this again on the ecology as mentioned several times before. The aim of the SAB is to see that these aspects are being taken into account in the Swiss agricultural policy. It also aims at showing how farming and tourism interact, and both guarantee for jobs and thus contribute to prevent the exodus from the Alps; this had been going on for years, as in many remote and less favoured agricultural areas of western Europe.

Very often, pastoralists are seen as retrograde people. The Alps are one more place where the contrary is being proved: many farmers with innovative ideas have been able to show that it is possible to combine tradition with innovation. One of the aims of SAMI is to encourage the contact between these people who produce their cheese according to traditional recipes, partly still in old-type small cheese factories (for demonstration) on their Alps, sometimes modernised ones, and the tourists coming from the lowlands. People can buy products where they are produced and at the same time get a lot of information about the region and the products. Many farmers have a good knowledge of their region and can provide information on the history, the animals, the plants and the people who have been living there for generations.

Many of these small local cheese factories in fact have some tables and provide simple meals, based on their products, but also enriched e.g. with wine from the lowland.

The idea of "agro-tourism" is very present: an extensive tourism that helps the farmers, informs the tourists and doesn't destroy the natural environment and landscapes. In mountain regions the high nature value is also that which attracts the tourists, especially outside the skiing season. Agro-tourism is also a form of tourism that allows to pass on information to the people about the nature value of a landscape. So altogether, it is ecologically positive, as long as it doesn't attract too many tourists and in too remote areas where nature should be left alone.

There are about 2500 to 3000 cheese-Alps in Switzerland. In a first period, the SAMI project concentrates on the 600 cheese-Alps of canton Berne.

A questionnaire has been used to get the necessary information on each Alp and Alp-farm:

- The existing data from the Alp land register /cadastre were updated.
- Data on the increase in the value of Alpine pastoralism in the eyes of the consumers were gathered (social and economic sustainability).
- Tourist relevant data were gathered (economic sustainability).
- Data concerning nature reserves close to the Alps and other ecologically relevant data were gathered (ecological sustainability)
- Data on buildings were collected (cultural sustainability)

- And data on the cultural history were collected.

All these data are being analysed and will be included into the databank and made available to those interested. The databank should be used for agricultural and touristic purposes, but also by universities for research purposes.

The part of SAMI we are dealing with here is about cheese farms mainly situated in the Berner Oberland – the alpine region of canton Berne.

The SAMI website

An inventory of all cheese-Alps builds the base of the SAMI project. So far it is mainly about the canton of Berne and about cheese farms only. But the intention is to have an inventory of not only cheese Alps, but all types of Alps, and for the whole of the Swiss Alpine region.

The inventory is available at the following address: <http://www.alporama.ch>. It is continually updated. The website is only available in German for the time being; but English parts will be added to it. The website gives several types of information, starting at the top with general information, becoming more and more detailed downwards:

- On the first page of the site (Home), there is general information on Alps and cheese in Switzerland. It also gives a map of Switzerland with the number of Alps for which a portrait is available. It also gives links to other websites dealing Alpine agriculture. It gives a list of books related to the subject as well.
- It is possible to get information on each canton, and within the canton on each district, and then on each commune of the districts, and then about the individual Alps (as a unit made of several individual Alp-farms [Senntum in German]) of the commune, and finally about the individual Alp-farms of each Alp. On the cantonal level, new events concerning mountain agriculture are mentioned. Links are also given to other websites dealing with related issues in the same canton. And again, it gives a list of books related to the subject. On the communal level, there is a portrait of each farm, as described below.
- It is also possible to look for specific Alps by giving their name or one of the administrative numbers they have ("Schnellsuche"-option).
- Alps may also be found in an alphabetical list.
- There is also a glossary that gives explanations to terms used in Alpine agriculture. This glossary is only in German though.

The canton of Berne is the best studied canton, with portraits for 365 Alps and 600 "Sennten", each containing several Alp-farms. The information that may be gathered on individual Alp-farms is very extensive, with a variable degree of detail. Pictures also give a good idea about the landscape:

- The date the information on that particular Alp-farm was updated.
- First some administrative data (name of the farm, several numbers according to different administrative catalogues).
- The geographical location and the possibilities to join the place for tourists. In some cases there is even information on which map to use to get there or a direct link to a tourist map on the internet.
- Other information for tourists.

- Infrastructure
- Information on special aspects of the region.
- The names of the persons involved on the farm, of the shepherd if there is one and of the cheese-maker.
- The number of animals of each species and age group within the species.
- Information on the use of the pastures (for each altitudinal sector of the Alp) and the total time the animals spend on the Alp.
- The person to contact for more information with the telephone number; if available even the phone number of the Alp-farm itself.
- A detailed description of the farm and the pastures (normally with a picture)
- Information on the surface of the pastures.
- Details on the cheese produced and the production itself.
- Information on the marketing of the cheese.
- Information on other products that are available at the farm.
- A list of other Alp-farms on the same Alp, with a direct link to their web-page.

Literature related to the SAMI project

On the website there are indications on several books dealing with Alpine agriculture, cheese production, etc.

The SAMI project itself produces books that are meant to function as tourist guides to the different Alps. The Alpine region is being divided into smaller sub-regions (six for the canton of Berne). For each of these regions a book is produced that provides information on regional history, legal aspects of the Alps, infrastructure, etc.

Then each Alp is described in detail, with also all necessary information to get there and several pictures of the region or of specific building and production processes. The contact persons for each Alp are also given.

The books are organized in the same way as the "alporama" website.

Buchreihe „Wege zum Alpkäse“, Texte: E. Roth, Fotos: B. Straubhaar. Verlag Weber AG, Gwatt/Thun:

Band 1 (2002): "z'BÄRG - WEGE ZUM ALPKÄSE"; 80 Käsealpen der Amtsbe-zirke Signau, Thun und Niedersimmental. ISBN-Nr. 3-909532-01-2

Band 2 (2003): "z'BÄRG IM AMT INTERLAKEN"; 90 Käsealpen im Amts-bezirk Interlaken, ohne die Gegend von Brienz. ISBN-Nr. 3-909532-04-7

Band 3 (2004): "z'BÄRG IM FRUTIGLAND"; 130 Käsealpen im Amt Frutigen. ISBN-Nr. 3-909532-11-X

Band 4 (2005): "z'BÄRG IM OBERSIMMENTAL"; 117 Käsealpen im Obersimmental. ISBN-Nr. 3-909532-20-9

Band 5 (2006): "z'BÄRG IM SAANENLAND"; 100 Käsealpen im Amt Saanen und angrenzenden Waadtland. ISBN-Nr. 3-909532-31-4

Band 6 (2007): "z'BÄRG IM HASLITAL"; 80 Käsealpen in den Ämtern Interlaken und Oberhsali sowie Nachträge aus dem ganzen Berner Oberland. ISBN-Nr. 3-909532-35-3

"z'BÄRG 2006"

Alpkalender Berner Oberland. WEBER AG Verlag, Gwatt/Thun, 2005. (Fortsetzung für 2007 geplant)

"DER SBRINZ und die verwandten Bergkäse der Schweiz"

von Alfred G. Roth. Langnau, 1993. ISBN 3-85654-942-5

"AOC, ZURÜCK ZU DEN URSPRÜNGEN"

Schweizer Käse mit kontrollierter Ursprungsbezeichnung. Text: D. Schmutz, Fotos: H. de Wurstemberger und C. Lutz. Gollion, 2005. ISBN 2-88474-011-2.

"Alpi e formaggi delle nostre montagne"

von R. Lettieri, C. Ferrari, R. Bontognali und Fotografien von Enrica Frigerio; Bellinzona, 1997. ISBN 88-7967-021-2

"Schöne Aussichten - Kultur- und Wanderführer zu den Luzerner Alpen"

Realisiert durch Pius Hofstetter, Hugo Baumann, Andrea Boltshauser sowie Anton Emmenegger und Hans Zemp. Mit Fotos von Priska Ketterer. Schüpfheim, 2006. ISBN-Nr: 3-907 821-31-2

„Innerrhoder Alpkataster. Die Alpwirtschaft in Appenzell I.Rh. mit einem Beschrieb der einzelnen Alpen und Alprechte“

von Josef Inauen; Appenzell, 2004.

„Die Alpen im Kanton Appenzell Ausserrhoden“

von Hans Eugster-Kündig; Herisau, 1993.

„Die Alphütten des Kantons Freiburg“

von Jean-Pierre Anderegg; Freiburg, 1996.

"Les Maisons rurales du canton de Vaud"

von Daniel Glauser (Tome I: "Le Jura et ses contreforts") ; Bâle, 1989.

Internet links related to the SAMI project

www.casalp.ch

Homepage for everything that concerns AOC (registered designation of origin) related items on Bernese Alp cheese and Bernese "Hobelkäse" (¿planned cheese?)

www.alporama.ch

Databank on Alps, especially cheese Alps from canton of Berne, but also from other cantons.

www.alpverein.ch

Association of Alps in the Simmental (canton Berne)

www.regionalprodukte.ch

Website about regional specialities, including the Alps of canton Berne

<http://www.alpwirtschaft.ch>

The Swiss association for Alpine economy

www.schweizeralpkäse.ch

Homepage for all Swiss Alp cheese and the Swiss Alp cheese industry

www.aoc-igp.ch

Swiss association for the promotion of AOC (registered designation of origin)

www.oic-izs.ch

Intercantonal certification institution

www.etivaz-aoc.ch

Homepage of the Etivaz Alp cheese AOC in the canton Vaud.

www.gruyere.com

Homepage of the Gruyère AOC cheese from cantons Fribourg and Vaud

www.berghilfe.ch

Swiss aid to mountain areas

Other issues in mountain agriculture

Cattle play a major role in Swiss mountain pastoralism. But sheep have always been present in the mountains as well. Recently, cattle have decreased in some areas, especially at high altitude and tend to be replaced by sheep herds that take over when pastures are being abandoned by the cattle. But sheep tend also to graze in areas formerly not grazed by cattle, not grazed at all by livestock. This extension of land grazed by sheep may lead to the degradation of the local flora and thus not always welcome. It also seems that the performance of sheep is not at its best, that land at lower altitudes is being increasingly abandoned, and that losses of sheep to large predators may occur. An ongoing study aims at "establishing recommendations for extensive pasture management systems preserving the diversity of landscape and a vegetation species and ensuring good animal performances for sheep, solely or mixed with cattle ("Optimal management of mountain regions by extensive grazing systems with sheep". Federal Office for Agriculture, Berne, and Agroscope RAC, Changins. Publications on that study: Nachhaltige Schafalpung. In Anonyme (1999) Forum de la Fédération suisse d'élevage. Pâture mixte avec des ovins et des bovins. In Troxler J. (1998) Revue suisse Agric. 30 (2) : 53-56. Valorisation de l'herbe par les bovins avec une exploitation extensive. In Jans, F. & Troxler, J. (1996) Revue suisse Agric. 28 (4) : 223-227.

AOC – the registered designation of origin - as a new acquisition

AOC Appellation d'origine contrôlée (in English registered designation of origin, in German: Geschützte Ursprungsbezeichnung) is an important gain of value for the cheese of the Bernese Alps, and it was introduced on 30th March 2004 for the products "Berner Alpkäse" (Bernese Alpine Cheese) and "Berner Hobelkäse" (Bernese Planing Cheese). To be registered as AOC the geographic origin of a cheese must correspond to that decided for the AOC, and it must comply to well defined requirements specifications. (see also www.aoc-igp.ch). (http://www.alporama.ch/qv2/get/get_glossar.asp), see also <http://www.casalp.ch/produkt/produkt.html> (this site gives the difference between mountain cheese and Alpine cheese: Alpine cheese is produced only during the summer with the milk of cows grazing on mountain pastures and receiving no additional fodder. Mountain cheese is produced the whole year in the valleys, and also in winter when the cows receive additional fodder.

The site also gives information on the AOC (registered designation of origin) for the Berner Alpkäse and the Berner Hobelkäse: The Berner Alpkäse is being produced on some 560 Alps of canton Berne and neighbouring areas of canton Vaud. It is produced solely with raw milk from free ranging cows on Alpine pastures. It must be at least six months old before being sold. The Berner Hobelkäse is made with Berner Alpkäse aged for another twelve months and dried.

Ecological output of the SAMI project

An ecologically sound landscape is also an attractive one for tourists

Although the first aim of the SAMI project is rather on the marketing side of regional products, and not primarily an environmental one, the positive outcome for the environment is quite obvious. The idea is to attract people to the Alps and give them a view into the Alpine agriculture. But tourists are interested in finding an environment that is worth the visit. This is clearly also an ecologically sound environment as far as the Swiss examples show: visitors are attracted to a diverse agricultural landscape not to monocultures or intensively managed grasslands (that may be found in the Swiss lowlands).

The Swiss legislation can be ecological

The Swiss legislation that favours mountain agriculture, as shown above, is to a large extent imprinted by ecological aspects. This is also reflected in the aims of the SAMI project: sustainability and the preservation of nature and culture are amongst the important direct aims of the project. Agricultural legislation concerning subsidies for mountain areas gives detailed information on how many animals may graze for how long, and this is reproduced in the SAMI databank which gives figures for each Alp on how many animals there are and at what periods of the year and for how many days. This is an important ecological constraint, and the databank the information about it, even if it is not declared as an ecological purpose.

AOC and the environment

Yet another ecologically just as important factor, though indirect again, is the AOC (the registered designation of origin) which implies high quality products. And, the quality of the cheese depends to a large extent on that of the milk, which on its side depends on the quality of the forage, the grass consumed: the more floristically rich the grass, the better the milk (<http://www.casalp.ch/aktuell/berichte/verona-20-10-05.html>). From that it may be concluded that the quality of the milk increases with the ecological value of the pastures.

Ecology doesn't need to be in the title

The SAMI project shows that it is a ecologically favourable project even if ecology is not the main aim of the project. It shows that economy and ecology can be partners, and in fact that economy may depend on sound ecology. The same is probably true in many cases where high quality products are at aim and not high quantity. It is for instance also true for AOC goats' cheese on the Causses of southern France. It will be true in many so called Less Favoured Areas (LFA) as they are called according to EU agricultural policy. Where intensive agriculture is not possible farmers are trying to do their best with what they have, and this is very often ecologically sound. It will also apply to mountain areas in other regions of the world, to steppe habitats or to deserts ... as long as one doesn't try to intensify agriculture.

What needs to be changed for the positive outcomes to be more widely realised or replicated?

Replication of the project within Switzerland

The SAMI project is originally a private initiative. It involves a lot of work to produce the databank and to make this accessible and interesting to a large public and to research people at the same time. All the necessary information for research must be included, but it must be presented in an attractive way for the larger public and it must also be completed for that larger public (pictures, information about routes leading to the different Alps, anecdotes that make these worth visiting, information about products that can be bought, etc.). All the information must be kept in a

database to be accessible for research purposes, but also on an attractive website for the larger public and in books that can be used as guides by tourists.

This has been partly done, mainly for canton Berne. It could also be produced for other regions with mountain agriculture. The main problems are the costs involved. For that sort of costly projects, normally private money will not meet the needs, and public money is necessary. The SAMI project primarily financed with cantonal and national public money. Canton Berne being more or less covered now, money has to be found for the other cantons with Alps, especially with cheese producing Alps. This means that the conscience for the importance of the project must be awakened with cantonal and national authorities who may have an interest in the project: agriculture, environment, culture, tourism ...

The results of SAMI in the field show that it is important to provide information to tourists about what they may see in a region if one wants to make them sensitive to that landscape and to those who inhabit it and live from it: show them the ecological and socio-economic value of the type of mountain farming they see. So far, SWMI was quite successful in that since lots of people are keen in visiting the cheese factories, buying cheese and asking information about the production and the whole way of living of the farmers. People also like to wander through the very rich landscapes of these farming areas.

The SAMI project is to be continued to include other farming systems than those of cheese production and also to cover other important mountain farming areas in Switzerland. To do that nothing really needs to be changed, except for the availability of the necessary money. And the project leaders of the SAMI project are already working on that.

Replication in other countries

The problem for a replication of analogous or similar projects in other countries will be first to find the people who are willing to take the initiative and then to find the necessary funds to do it. First, there must be a will from the first people concerned: the farmers or the pastoralists. They must see an advantage at making their farms known. Then there must be a public to motivate and to make interested in knowing what happens on the farms, individual people, schools and agricultural institutions. If these two first conditions are met, the rest may become possible as well. Farmers/pastoralists will have an interest in marketing products from their farms (meat, milk products, skins or wool, but also local handicrafts). This local will is the first step to raise the interest of authorities who may then be prepared to give money for a larger marketing project such as the SAMI project in Switzerland.

Although the first aim of the SAMI project is not only an environmental one, the positive outcome for the environment is quite obvious. Tourists are interested in finding an environment that is worth the visit. This is clearly also an ecologically sound environment as far as the Swiss examples show: visitors are attracted to a diverse agricultural landscape not to monocultures or intensively managed grasslands (that may be found in the Swiss lowlands). This fact applies not only to Swiss agriculture but also to that of so called Less Favoured Areas throughout the world, where agriculture is at the edge of its viability. It shows that it is not always necessary to develop a pure nature conservation project to reach ecologically sensible aims, but that socio-economically sound projects may lead to the same result. An exact replication of the SAMI project will probably not make much sense in many regions: a website has no use in places where the internet is not well developed. But the idea of presenting individual farms in a way to attract visitors and to market the products can be achieved in other ways: e.g. books (as in the SAMI project), booklets or leaflets.

Advocacy outputs

As a direct output of the present study and into the SAMI project, an introductory or explanatory part to the website in English and French have been discussed, and would also be welcome by

the SAMI project. There are no other needs for advocacy for the SAMI project itself. But SAMI could help to develop other similar projects.

An output of interest to other regions or countries then would be to give people who would be interested in starting a similar project the opportunity to discuss it with me and with SAMI people. The website will certainly not be the best way to present a similar project in all regions or to market products. But books, booklets or leaflets could be quite efficient if presented attractively.

Glossary

Alp: Geographically and geologically The Alps are the chain of mountains going from France eastward to Slovenia. An Alp is also the name given to an agricultural unit to separate different groups of Alp-farms from each other.

Senntum: is the name given to an individual Al-farm. An Alp consists of several of these "Sennten".