

Biathlon Centre and Larchwood in Lenz, Graubünden, Switzerland

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Introduction

On one hand woodland is spreading in the Swiss Alps due to the reduced agricultural interest of land on steep slopes. On the other hand there is a growing interest in harmonious landscapes combined with the most perfect touristic infrastructures. Due to this contradictory evolution the pressure on the left over good agricultural land is growing. A forgotten paragraph in the woodland laws can help reduce the pressure between sportive infrastructures, lovely landscape, ecological values and an economically sustainable agriculture.

Situation

A new biathlon centre is planned in the town of Lenz in the eastern Swiss Alps. The planned centre, to be used as a national base, will require several hectares of land. The proposed site is currently used to summer livestock belonging to the town's seven farmers. This loss of pasture land is critical because coincidentally an additional number of hectares of land used for pasture on the local golf course will also be taken out of use starting in 2009. A massive reduction in the total available pasture in Lenz in the coming years is the result.

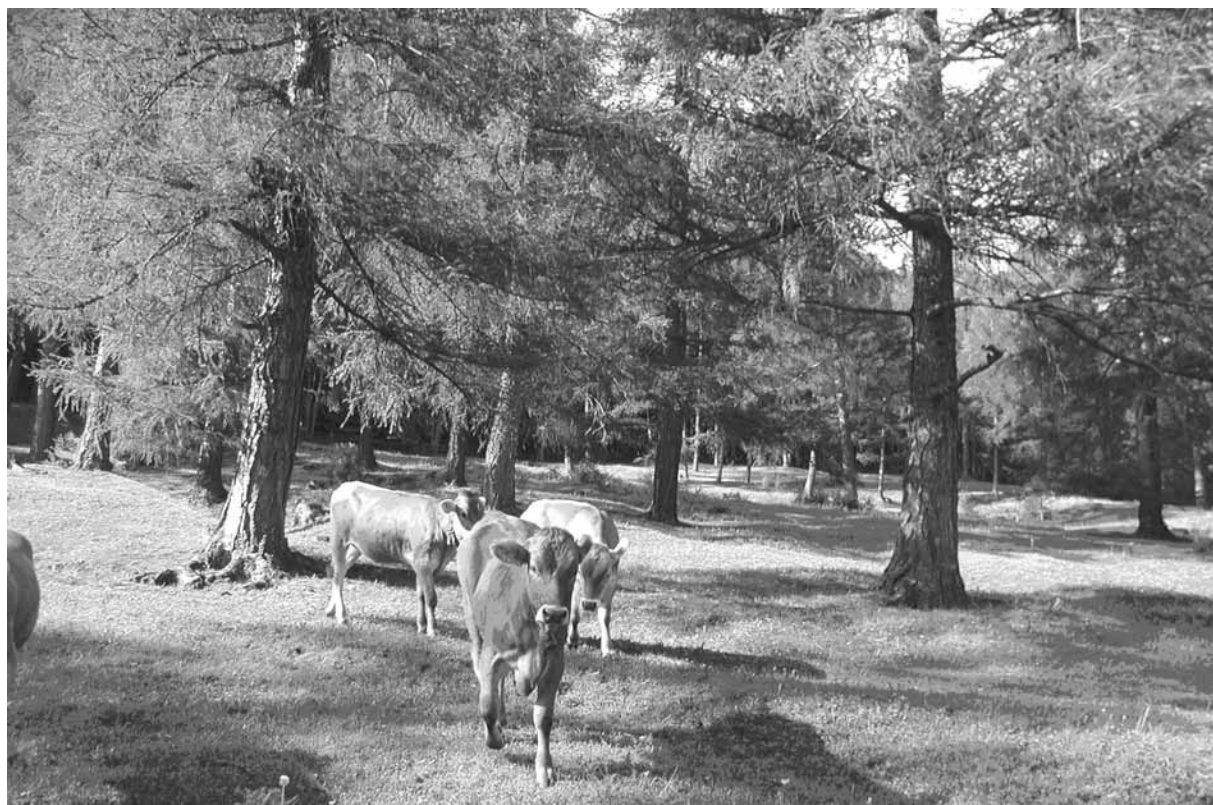


Figure 1: Larchwood – pastured woodland in Engadin, Switzerland.

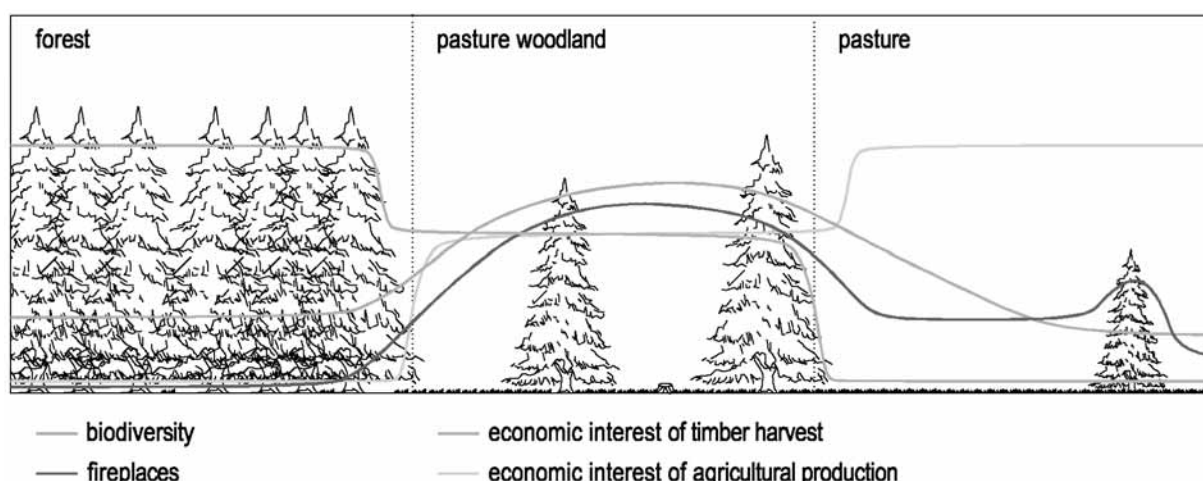


Figure 2: Forest-pasture – woodland-pasture: amount of fireplaces as an indication of the spontaneous recreational use of land.

A primary objective of this project is to provide the farmers with replacement land within the community as far as this is possible. A second objective is to provide ecological compensation for the proposed centre.

Larchwood pastures in the old days

The whole region around Lenz is touristically interesting because of its lovely landscape. The attractiveness is largely due to the old larchwood pastures. They build the framework for a park-like landscape. Unfortunately farmers using modern agricultural techniques have lost interest in the larchwood pastures. As a result the park like, half open woodland is growing into much denser, much less attractive wood, which is at the same time much less valuable ecologically.

The point of questions

Basically compensation is required for the farmers' losses of land and the ensuing losses of income. Additionally, it will be necessary to provide ecological compensation for the planned buildings. Ideally measures can be found which will serve both purposes. The most important income of Lenz is tourism. It is based on the natural beauty and diversity as well as on the sports infrastructure. Out of this the following questions arise:

- How does the new centre have to be integrated without losing aesthetic qualities of the landscape?

- How could the aesthetic quality of the landscape be improved in spite of the new infrastructure? Could it even be possible to regain lost values, such as the pastured larchwood?
- Which measures have to be taken to ameliorate the soft (landscape) and the hard (buildings) touristic infrastructures in the same time?

Methods

For the comprehensive analysis a landscape development concept (LEK) over the entire town area below the forest boundary was carried out. It differentiated between ecological values, deficits and potentials. Detailed floristic or faunistic field surveys were not carried out but all existing material, such as regional and national inventories, were gathered, analysed and incorporated into the LEK.

Additionally the landscape was surveyed in the field and all relevant agricultural structures were evaluated. All the information was brought to a plan in the scale of 1:5000. A spatial analysis of values and deficits in the plan, combined with other relevant criteria, led to the location of optimal areas for ecological or aesthetic improvements, as well as potential new pasture. On this basis a proposal for the necessary land exchanges was worked out.

Different scenarios were developed showing where and by which measures pasture land could be gained. The provision of new pasture land will be combined with ecological compensation because semi open pastured woodland is a very valuable biotope. In this way "new" pasture land for the farmers and

ecological compensation for the planned buildings are one and the same. The focus of this project was set on the woodland aspect. With an ordinary LEK all the elements of the landscape would be analysed equally. This LEK focused mainly on the potential of woodland pastures as well as on the ecological and aesthetic improvement of the woods. Additionally the protective functions of the woods against avalanches and rockslides had to be incorporated.

Conclusions

1. The national and the county woodland law foresee the possibility of using woodland as pasture – a forgotten aspect, which helped to “find” new land for the different needs.
2. Pastured woodland is part of a dwindling, valuable, cultural heritage. With a new approach these values can be revitalised.
3. The creative interpretation of the woodland law combined with ecological compensation could help saving the touristically important pastured woodland in many places all across Switzerland.

References

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