

## Sharing Experience and Good Practices for Sustainable Use of Alpine Grasslands in Natura 2000 Sites



Society for Territorial and Environmental  
Prosperity (STEP)  
[www.step-bg.bg](http://www.step-bg.bg)

February 2016

## Table of content

<b>Introduction .....</b>	<b>2</b>
<b>1. Participants.....</b>	<b>2</b>
1.1. Regions.....	2
Godech Municipality, Bulgaria .....	2
Liezen district, Styria state, Austria .....	3
1.2. Farmers .....	3
Bulgarian farmers.....	3
Austrian farms and farmers.....	4
1.3. Representatives of Godech municipality and the Local action group ‘Berkovitza – Godech’ ....	5
1.4. Volunteers.....	6
1.5. Organizers .....	6
<b>2. Study tour in Austria.....</b>	<b>7</b>
2.1. Agenda .....	7
2.2. Findings, lessons learnt and good practices.....	8
Austrian agriculture.....	8
Thonnerhot family farm .....	9
HBLFA Raumberg Gumpenstein Institute experimental fields and farms.....	10
Grabnerhof alpine goat farm .....	12
Grasslands in Natura 2000 .....	12
Bernhard Schaumberger family farm .....	13
Lipizzaner stud farm .....	13
2.3. Feedback from the participants in the study tour .....	14
<b>3. Karl Buchgraber visit to Godech municipality .....</b>	<b>15</b>
3.1. Farm field visits .....	15
3.2. Workshop with Ministry of agriculture and food and Ministry of environment and waters representatives .....	17
<b>Conclusions .....</b>	<b>21</b>

# Introduction

This report presents the shared experience, the lessons learnt and the good practices exchanged in the framework of the project “Sharing Experience and Good Practices for Sustainable Use of Alpine Grasslands in Natura 2000 Sites” between Bulgaria and Austria. The project was funded by the Arkleton Trust, UK ([www.arkletontrust.co.uk](http://www.arkletontrust.co.uk)).

The exchange visits were done in September and October 2015. Their focus was on increasing the understanding, knowledge and practical experience for sustainable management of mountain grasslands in Natura 2000 sites in Godech municipality in order to improve the competitiveness of the existing extensive farming systems; and on creating a partnership between Bulgarian farmers from Godech municipality and their Austrian colleagues from Liezen district for sustainable use of natural resources.

## 1. Participants

### 1.1. Regions

#### Godech Municipality, Bulgaria

Godech municipality covers 374.68 km<sup>2</sup> and is situated in the Northwestern part of Bulgaria in Sofia district. The elevation of the municipality is between 700 and 1400 m. The municipality has 1 town and 19 villages. The average population density is 69.5 people/km<sup>2</sup>. The municipality is located in Western Stara Planina, near the border with Serbia, and has approximately 4100 ha arable land, 4550 ha meadows and 10300 ha pastures and common grazing land. In 2015, the registered farmers were 1233, with the average farm size 10.3 ha. In 2015, there were 1033 cattle in 133 farms, 2939 sheep in 197 farms, 697 goats in 147 farms, 359 pigs in 149 farms in the municipality.

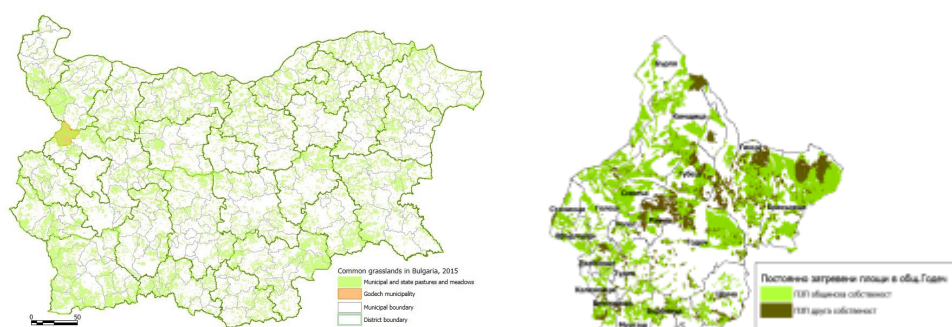


Fig. 1 & 2 . Godech Municipality

Being located in Western Stara Planina Mountain, Godech municipality is a home of rich biodiversity, 160 breeding bird species, including the biggest populations of Rock Partridge, Corncrake, Saker Falcon, and Imperial Eagle; as well as a number of Red Book species and Balkan endemic plants. 95% of the municipal pastures in Godech are in Natura 2000 sites. The habitats include 6210 Semi-natural

dry grasslands, 6240 Sub-pannonic steppe grasslands, 62D0 Oro-Moesian acidophilous grasslands, 6430 Hydrophilous tall herb fringe communities, 6510 Lowland hay meadows, and 6520 Mountain hay meadows.

### Liezen district, Styria state, Austria

**Styria** is a state, located in the southeast of Austria. It is the second largest of the nine Austrian federated states, covering 16,401 km<sup>2</sup>. It borders Slovenia as well as the other Austrian states of Upper Austria, Lower Austria, Salzburg, Burgenland, and Carinthia. The population (as of 2011) was 1,210,700. The capital city is Graz with a population of 276,526 inhabitants (2015). Liezen district is located in "**Upper Styria**" - the Northern and Northwestern parts of the federal state. It covers an area of 56,36 km<sup>2</sup> with average elevation 664 m and a population 6856 (in 2014). The average population density is 120 persons/km<sup>2</sup>.



Fig. 3 . Liezen district, Styria region , Austria

## 1.2. Farmers

### Bulgarian farmers

Borislav Borisov – farmer from Godech with 42 dairy cows. He manages 1 ha own pasture and 33 ha municipal and private pastures near the town of Godech and Varbitza village.



Hristo Boyadjiev – farmer from Godech with 70 cows, 18 sheep, 12 goats and 1 horse. He manages 20 own grasslands and 30 ha municipal grasslands near Shuma village. 8 ha of the grasslands are in Natura 2000 zones.



---

Pavlin Antonov and Sonya Saeva manage their family farm Linbul (<https://petrohan.wordpress.com/>). The farm is situated in Petrohan area, near Brakyovtzi and Gintzi villages. They have 32 suckler cows that graze on 22 ha municipal grasslands in Natura 2000. Both of them are big believers in “real” things – real meat and milk, and real and lasting care for the pastures.



---

Stefan Vlasakiev and Yulia Stoyanova have a family farm with 41 dairy cows and 237 sheep. They manage 95 ha of municipal grasslands near Gintzi village. 72.4 ha of the grasslands are in Natura 2000 zones.



---

Slavi Dimitrov and Katina Dimitrova live near Gintzi village, Petrohan area. They own and manage 8ha of grasslands. Slavi was also our interpreter in Austria.



---

### Austrian farms and farmers

---

Family farm Thonnerhot (<http://www.thonnerhof.at/>; <https://www.facebook.com/thonnerhof>) is owned by Reinhard and Hildegard Schmalengruber and their 3 sons. The family farm has 200 years of history. Currently it is located in the vicinity of the small village Aigen im Ennstal at 1000 m.a.s.l. It is an organic farm with 16 dairy cows, 20 ha grasslands and 50 ha forests. The grasslands are not in Natura 2000 zones, but are organically certified. The farm products include milk, hard cheese, homemade bread and apple juice. The farm has also a guesthouse.



---

Model farms and fields of the Raumberg-Gumpenstein Institute. The Research institute has 4 divisions: livestock research; plant production and cultural landscape; species appropriate animal husbandry; and organic farming and farm animal biodiversity. The plant production and cultural landscape unit has 40 experimental fields and more than 1000 ha grasslands for grass seeds production. In 2010, a model livestock farm was created for 175 cows.





---

Farms of Grabnerhof technical school for agriculture and alpine farming. The school manages 200 ha grassland, of which 55 ha are alpine pastures at altitude between 1250 and 1800 m. It has 50 heifers and calves, 50 sheep and lamb and 25 dairy goats.



---

Bernhard Schaumberger family farm. This is intensive livestock farm in favourable grassland area with high level of mechanization (milking robot). The farm has 65 dairy cows and 45 breeding animals. The milking robot gives the possibility to manage the whole farm only by the family.



---

Lipizzaner stud farm. In Piber is the nursery for the world famous horses from the Spanish riding school in Vienna. (<http://www.lipizzanerheimat.com/en/lipizzaner-piber.html>). The 'mothers' stud farm' houses around 75 mother mares; horses in training, used for presentation and events at the stud farm; stallions from the Spanish riding school; and those stallions and mares which due to age are enjoying their well-deserved retirement. Annually more than 30 Lipizzaner foals are born. The farm manages 420 ha for silage and hay for the horses.

---



### 1.3. Representatives of Godech municipality and the Local action group 'Berkovitza – Godech'

Alongside farmers, participants in the project activities were the other members of the Partnership group working for the sustainable management of grasslands in Godech municipality. Given that 95% of the grasslands in the municipality are in municipal ownership, STEP team has involved also the responsible municipal experts, with the understanding that their participation will bring benefits to a wider group of livestock breeders from the municipality.

---

The following members of the Partnership group were involved in the project activities:

- Nadya Todorova – Coordinator for Godech of the Local Action Group 'Berkovitza-Godech'
- Neli Nikolova – Expert in the municipal agricultural service in Godech municipality
- Emilia Nikolova – Ecologist of Godech municipality
- Velin Ivanov – Director of Godech cultural house (chitalishte) and Chairman of the Municipal board



## 1.4. STEP Volunteers

Our initial idea was not to include STEP volunteers in the project. However, one of the lessons learnt is that organising a study tour for farmers is a difficult job, full of surprises. Two of the farmers cancelled their participation in the exchange visit in the last moment (the day before the trip) and had to be replaced by two volunteers that took part in all of STEP's projects as well in the clearing of the municipal grasslands, organized by project team.

---

STEP volunteers participating in the project:

- Vesselina Kazakova – student in “Ecological economy” in the University of National and World Economy,
- Daniel Assa - student in “Marketing Management” in the University of National and World Economy



---

## 1.5. Organizers

Karl Buchgraber (Austria) – Director of the Raumberg-Gumpenstein Institute for plant production and cultural landscape in Austria. Karl has a long practical experience in advising farmers how to manage and use their pastures, he is involved in numerous research projects related to grassland ecosystems.



Brigitte (Gitti) Mehlmauer (Austria) is an international expert working in the field of rural development. She has her own consulting company – GBI Consulting assisting the preparation of the rural development programmes in South-East Europe countries. Gitti helped in establishing the cooperation between STEP and the Institute for plant production and cultural landscape



STEP (Bulgaria) – the Society for territorial and environmental prosperity is a new NGO, established in 2014. The STEP team is formed by experts with long-term experience in the field of rural development and environmental protection, and the related policies. Nature-friendly approaches for protecting High nature value farmland are in the focus of STEP activities. STEP team initiated the study tour and the exchange of experience and worked actively for its implementation.



## 2. Study tour in Austria

The idea for organizing exchange visits itself emerged while discussing the challenges for sustainable management of Natura 2000 pastures with local livestock breeders in Godech municipality. Bulgarian farmers and members of the Partnership group were interested to see how farmers from other countries implement nature-friendly agricultural practices on grasslands and, at the same time, manage to be economically viable. Mrs. Brigitte Mehlmauer (Gitti) helped STEP team to establish contacts with the Institute for plant production and cultural landscape. The study tour to Austria took part between 21 and 25 September 2015. The initial idea was to travel with two minibuses for 16 people including the two drivers and one interpreter. The project team explore the opportunity to appoint drivers and interpreters among the farmers or experts from Godech municipality or STEP team, in order to provide opportunity to more farmers and experts to participate in the exchange trip. Additionally, one of the farmers travelled by his own car, so finally the group consisted of 18 people: seven farmers, an expert of the municipal agricultural service, an ecologist of Godech municipality, a coordinator of LAG “Berkovitza-Godech”, the chairperson of Godech municipal board, five STEP experts and 2 volunteers. The volunteers replaced two farmers that cancelled their trip at the very last moment. The experts from the municipal authority were involved in the group due to the high share (95%) of grasslands in Godech municipality that are in municipal ownership. The municipal authority has the responsibility for ensuring the sustainable use of grasslands. Our experience shows that if the administration does not have the understanding of the challenges and the opportunities in front of farmers, then the contracts for the use of municipal (common) grasslands are not favourable for the farmers. The farmers were selected based on the following criteria:

- Farmers who use/manage municipal grasslands in Natura 2000 area;
- Farmers who have grazing animals and practice grazing as opposed to in-house breeding system;
- Preference was given to members of the Partnership group;
- Farmers have to be willing to share the experience gained with others;
- Farmers are able to spend 5 days away from their farm.

It turned out that the possibility to spend 5 days away from the farm was the most important criteria and this became the first lesson learnt for STEP experts.

### 2.1. Agenda

The study tour had the following agenda:

#### **21 September 2015**

Arrival, check in and dinner at mountainous farm of Family Schmalengruber:

Welcome and brief introduction of the programme: Karl Buchgraber Head of Institute for plant production and cultural landscape

#### **22 September 2015**

07:30 Breakfast



- 08:30 Farm visit and discussion with Mr. Reinhard Schmalengruber and Karl Buchgraber about family Schmalengruber mountainous farm
- 12:00 Lunch at HBLFA Raumberg-Gumpenstein
- 13:00 Visit of the fields and the farms of the research institute Raumberg-Gumpenstein
  - Welcome: Johann Gasteiner
  - Grass land management: Karl Buchgraber
  - Livestock management: Johann Häusler
  - Sheep and goats: Ferdinand Ringdorfer
- 19:00 Dinner

### **23 September 2015**

- 07:30 Breakfast
- 08:30 Departure to Grabnerhof (Technical school for agriculture and alpine farming)  
Visit of alpine pasture and processing facilities on alpine pasture.
- 12:00 Lunch at Grabnerhof
- 13:00 Visit of Grabnerhof agricultural school
- 16:00 Visit of intensive livestock farm in favourable grassland area with high level of mechanization (milking robot etc.) of Mr Bernhard Schaumberger.
- 19:00 Dinner

### **24 September 2015**

- 07:30 Breakfast
- 08:30 Departure to South Eastern Styria (on the route back to Bulgaria)
- 11:00 Visit of Piber – horse breeding station of „Lippizaner“
- 13:30 Lunch in Piber
- 14:00 Accommodation in Piber

### **25 September 2015**

Travel to Bulgaria

## **2.2. Findings, lessons learnt and good practices**

### **Austrian agriculture**

Karl Buchgraber made an overview of Austrian agriculture.

In 2010 the agricultural land in Austria was 2 879 895 ha and the forests were 3 405 750 ha. Land and forest production accounted for 4% of the total GDP in 2013. The agricultural land has decreased with 29.4% compared to 1951, while the forest have increased by 14%. 4.8% of the Austrian population (8 million) work in the agricultural sector. The grasslands cover 1.44 million ha. 65% of the grasslands are up to 0,5ha. 60% of the grasslands are under extensive management – grazing up to 1 LU/ha and mowing up to twice per year. The other 40% are managed intensively and are mowed 6 times per year. The majority of the grasslands are private (70%), 15% belong to the state and 15% are municipal grasslands. 17% of the territory of Austria is in Natura 2000 zones.

In 2013, there were 106 000 livestock farms in Austria with an average size of 19.3 ha. 70% of the farms are in the mountain areas and have to undertake other activities to be economically viable. Most of the farms are family ones – 94% of the farms use labour force from the family and only 6% hire additional workers. The dairy cows were 766 215, out of which 529 560 are dairy cows and the

others were suckler cows. The biggest part (74%) of the dairy cows is located in favourable areas. On average there are 15 cows per farm. It is estimated that in order to be economically viable the farms have to have 30 cows. The sheep are 357 440, the goats- 72 068 and the horses 81 637. The income of the farms is: 30% from agricultural activities, 30% from other activities (tourism, forestry, etc.); 30% from national and EU subsidies. Direct sales are 5% from the farm sales.

### Thonnerhot family farm

The family farm has more than 200 years of history. At the beginning there were only 5 small farms. In 1912, a farm in the flat area surrounding the village Aigen im Ennstal was created. Then the farm was divided into 2 farms; one of them was up in the hills where it is positioned now. Nowadays, the family manages 50 ha of forests and 20 ha of grasslands. They have 16 cows and cannot increase the number of animals because the grasslands are enough to feed exactly that number of cows. The land is not in Natura 2000, but is organically certified.

Since 1964 they started to spread manure and water on the grasslands twice per year. The grasslands are reseeded only if they are overgrazed. The grass is mowed up to 3 times per year. They produce their own haylage kept in silage pits. The manure is spread carefully and rotational grazing is applied in order to keep the grassland from overgrazing and erosion. Cows are taken to the grasslands depending on the weather conditions. For example, if it is raining, cows are not grazing on the sloppy grasslands, in order to preserve the grasslands from being dug up. If the grass is good cows are kept following the ration 1 cow/100 square meters/day. The overall livestock density in the farm is less than 1 LU/ha. They do not use compound feed.

The products of the farms are milk, hard cheese, homemade bread and apple juice. The farm has a guesthouse with 11 rooms. 30% from the income comes from milk sales, 30% - from the guesthouse and 30% from subsidies. The milk price is 0.35 EUR/liter depending of the fat plus 0.15 EUR/liter for the quality of the milk. The average milk production per cow is 6000 litres/year. The cows are milked 305 days/year.

The barn was renewed in 2008 and 2 new silos were built, milking hall and cooling tanks were bought. The farm has a private water source and drainage system. The family has its own machinery and takes care of the farm infrastructure alone or together with its neighbours.

Reinhard Schmalengruber believes that the most important thing for the farm efficiency is the quality of the feed: “The best livestock breeders are the ones, which can produce quality feed for their livestock. Having a modern barn is not enough. You can have as many animals as you can feed” – says Reinhard.



### **HBLFA Raumberg Gumpenstein Institute experimental fields and farms**

The Bulgarian group was welcome by Mr. Johann Gasteiner – Deputy Director and Head of Research and Innovation of the Institute.

The Research institute has 4 divisions: Division for livestock research, Institute for plant production and cultural landscape, Institute for species appropriate animal husbandry and Institute for organic farming and farm animal biodiversity. The research institute has also an agricultural school. The research work focuses on grassland management, livestock management with 100% grazing; 80% grazing and 20% in-door raising of livestock, different breeds, suitable for the farmers needs, organic farming, etc. The students are helping in the field research.

The institute for plant production and cultural landscape has 40 experimental fields and more than 1000 ha grasslands for grass seeds production. The longest experiment led by Karl Buchgraber is from 1974 and is related to the way the grasslands are managed – livestock density per ha, how many times and how the grass has to be mowed; how many times and which is the period that the manure has to be spread on the fields, grass mixtures composition and density nutrient value of the grasslands, different grass varieties. For example, if the grass is mowed 4 to 6 times per year, how many times manure has to be spread on, etc. 64 grass varieties are produced in the experimental fields and grass mixtures are offered to the farmers. The redtop is the most suitable grass species for the region, because it is resistant to draughts, with more dense grass turfs that keep the water in the soil for a longer period of time.

The usual period of the trials is 3 years, but some of them are prolonged to 7 years. 1000 ha are used for grass seed production.

“The farmers believe that the grass is good only after the milk yields increase” says Karl Buchgraber.

Climate change increases the period of draughts. Therefore, a trial is carried on for the so called “summer hole” – what will be the period for grass recovery after a draught. That trial helps for the development of insurance schemes – more than 30,000 ha are already under such risk prevention schemes.

A 60 years old trial field was shown. The field is mown three times per year. It is separated into 3 parts – the first one is maintained without any manure or fertilisers. The second part is fertilised with potassium and nitrogen. The third one is fertilized with phosphorus, potassium and nitrogen. The nutrient value of the soil is the most important factor for the fodder quality. The trial showed that the best nutrient value is obtained in the part fertilised with phosphorus, potassium and nitrogen.



Since 1992, a trial is carried out on grasslands that are maintained with 1 mowing and without any fertilizers. The task is to calculate the loss in doing this. The calculations are applied in Natura 2000 compensations for grassland and also for the payments for organic farming. There is a test field where only manure is applied and ones treated with mineral fertilisers. The quality of the fodder and the yeilds are compared. The results show that the most efficient are the grasslands where manure is applied. The data is published on the website of the institute and is used by the European grassland association. There are 6,000 reports on the websites, covering more than 200 issues. The publications are divided into research ones and applied research oriented towards the agricultural practices.



A trial for the impact of climate change, the increase of temperatures and the greenhouse emissions (especially CO<sub>2</sub>) on the grasslands has being carried out since 2014. An installation simulating higher emissions of CO<sub>2</sub> and higher temperatures on the grasslands was built. The trial is financed by the Austrian Ministry of Agriculture. The trial costs are 1.5 million EUR. Under the surface there are sensors of 400,000 EUR, that measure the temperature and the condition of the ground waters and surface layer. It is expected that the results will show the impact of CO<sub>2</sub> emissions on the different grasses and the soil.



Since 1976 a trial for the groundwaters quality has been carried out. Different quantities of mineral fertilizers and other elements are put in the water irrigating the grasslands. The elements that are found in the ground waters are observed. A higher level nitrates in the ground waters are observed on the fields where no activities have been carried out since 2001 (no mowing) .

In 2010 a model livestock farm was created with 175 cows grazing on 78 ha grasslands. The milk yield of 7t/cow/year is reached without compound feed, only by better quality of the grasslands and the haylage that also improves the health of the livestock. In addition to the grasslands 7.5 ha are cultivated with maize for silage; 7.5 ha are temporary grasslands, 15 ha of grasslands are not mown, the meadows are mown 7 times per year and the yield is 7.5 t of dry matter per ha of grasslands. Apart from the dry matter, 10t of haylage, 15t of maize silage and 50t green mass are used for feeding the animals.



### Grabnerhof alpine goat farm

The alpine goat farm of Grabenhof school is situated at around 1300 m in a very sloppy area. Still the cattle and the goat are grazing from early spring to late autumn. The renovated goat farm and barn is suitable for 25 goats; and apart from the milking parlor and equipment, has a conference room and small processing part where goat cheese is produced. The students can watch and participate in the milking of goats, the production of cheese and the overall activities of the farm. The farm is in Natura 2000 area and the surrounding grasslands are managed only by grazing and mowing.

There is also a house for accommodation of students, with own power supply and waste-water treatment installation.



### Grasslands in Natura 2000

A very interesting trial for the impact of the grassland management on the biodiversity conservation in Natura 2000 sites was presented to Bulgarian farmers.

The trial started 15 years ago. The grassland is divided into different test fields. Different management practices are applied on each field. When the trial started the grass composition contained 64 valuable species.



The agricultural practices applied are the following (from right to left on the picture):

- Set-aside (no grazing and mowing)
- grazed by sheep (1.5LU/ha;
- grazed by cows (1.5 LU/ha);
- mowed once per year.

On the grasslands that are close to the fence grazing is done with 1.5LU/ha and in addition mowing without any additional spaying of manure and mowing with additional spraying of manure.



Species are checked every 3 years. The best results are obtained with grazing of sheep – where the number of the existing grasslands species is more or less the same. On the set-aside field for 15 years the species have decreased from 64 to 19. On the field where grazing, combined with mowing and spraying of manure 40 species can be found.

#### **Bernhard Schaumberger family farm**

The group visited also an intensive livestock farm in favourable grassland area with high level of mechanization (milking robot). The farm has 65 dairy cows and 45 breeding animals. The milking robot was bought several years ago and gives the possibility to manage the whole farm only by the family. The owner said that using the robot allows him to spent time with his family.



#### **Lipizzaner stud farm**

The group visited also Piber Lipizzaner stud farm that is a nursery for the world famous horses from the Spanish riding school in Vienna. The 'mothers' stud farm' houses around 75 mother mares, horses in training and used for presentation and events at the stud farm, stallions from the Spanish riding school and those stallions and mares who due to age are enjoying their well-deserved retirement. Annually more than 30 Lipizzaner foals are born. The farm manages 420 ha for silage and

hay for the horses. The horses are black when they are born and they change their color to white after the 6 year. Only 8% of the foals remain in the farm.



### **2.3. Feedback from the participants in the study tour**

STEP team developed a feedback form to better understand the impressions of the participants in the study tour. The following questions were included in the form:

- What is your overall assessment of the organization of the study tour;
- Please assess the agenda of the study tour;
- Which part of the agenda was most useful for you? Why;
- Which topics would you like to explore in the future;
- What is your overall impression of the study tour;
- Please share any other additional comments and proposals.

The agenda, the organization and the overall impression of the study tour were assessed with the highest points by all of the respondents of the feedback form (STEP experts were not included).

The most useful part of the agenda for most of the participants was the visit of the trial fields and farms of the Raumberg-Gumpenstein Research institute. The farmers considered the whole agenda as very useful and also shared the opinion that the conditions, the farms and the grasslands in Austria are very different for the ones in Bulgaria. The volunteers were impressed by the way the young farmers in Austria are trained in the technical agricultural schools and demonstration farms that were visited.

The farmers are willing to learn more about the nature-friendly agricultural activities and to exchange experience, especially on the equipment and technologies that are used. They would like to see also a link between the research activities in Bulgaria and their practical application - in the way it was done in Austria. The other members of the Partnership group would like to explore also topics like tourism development, afforestation, support mechanisms for the farmers and development of organic farming.

Only three additional recommendations were given by the respondents:

- It is necessary to narrow the selection of the participants of the study tour, because for some of them the topics were not of interest.
- The agenda and the travel were very intense. A little bit more time between the different visits will help for a better reflection of the results.

- The Partnership group has to be increased with new members and more livestock breeders need to be included in the Partnership group. This will guarantee longer sustainability of the results.

### **3. Karl Buchgraber visit to Godech municipality**

Karl Buchgraber's visit to Bulgaria took part from 11 to 13 October 2015 and focused on two main events/issues: farm visits on 11 and 12 October 2015 and a field workshop on 13 October with representatives of local farmers, members of the Partnership group, experts from Ministry of Agriculture and Food, and Ministry of Environment and Waters. During the on-the-field workshop, the main findings and recommendations of Karl Buchgraber for the management of the alpine grasslands in Natura 2000 in Bulgaria were presented.

#### **3.1. Farm field visits**

##### **11 October 2015**

Borislav Borisov's farm and the grasslands that he manages were visited. The farmer has 42 dairy cows and manages 33 ha of grasslands near Godech and Varbitza village. Nearly all grasslands belong to the municipality.

Hristo Bojadjiev's farm and grasslands are in Shuma village. He has 70 cows, 18 sheep, 12 goats and a horse and manages 30 ha of grasslands, of which 8 ha are in Natura 2000 site.

Both farmers shared the opinion that their main problems are related to grasslands ownership and the legislative framework that changes constantly. According to them, the uncertainty of how long they will manage the grasslands (in 2015 the grasslands were rented for 1 year) does not motivate them to do any improvements. Both farmers are sure that if they do some improvements on the grasslands (like topping them in the end of the season or cleaning them) next year the grasslands will be taken by the so-called 'subsidy farmers'.



##### **12 October 2015**

The family farm and the grasslands of Stefan Vlasakiev and Yulia Stoyanova were visited. The farm has 41 cows and 237 sheep. The family manages 95 ha of grasslands near Gintzi village. 72.4 ha are in Natura 2000.

A municipal grassland parcel of 50 ha was visited. The family has been managing that particular parcel for 2 years and has a contract with the municipality for 3 more years. The average elevation of the grassland is 1100m. Parts of the grassland have been cleaned from juniper, but it still covers

some areas in the upper part near the forest that cannot be used for grazing. The grassland is in Natura 2000 Habitats sites, (pSCIs), but the order of its designation has not yet entered into force.

The grassland is managed by grazing (41 cattle and cows); one mowing each year; and dry manure is applied in the spring. The average yield is 2 t/ha dry hay. The visual analysis of the soil and the grass made by Karl Buchgraber showed that soil is good but with low nutrients content due to improper management. In order to improve the situation and to reach a yield of 5 t/ha per year, it should be mowed twice with proper application of manure. Mulching in the autumn was also recommended for breaking the tufts of molehills and removing the tipits and the card. Rotating grazing with mowing and spreading of manure will also help to improve the grass cover and grassland productivity.

It is not recommended to have only mowing without grazing both from the biodiversity point of view, and the grassland productivity.

Karl Buchgraber recommended that the grasslands inside and outside Natura 2000 sites should be managed in a different way. In addition to the grazing the grasslands outside Natura 2000 can be mowed 2 or even 3 times per year. Rotational grazing is recommended for both types of the grasslands, but for the ones in Natura 2000 the environmental restrictions have to be also observed (mowing period, grazing density, etc.).

Such measures have to be applied for at least 7-8 years to improve the soil mineral composition.

“Only the farmers know how to maintain the landscape and the biodiversity with their livestock”, says Karl Buchgraber.



The group visited the farm of Philip Harmandjiev, situated in the same settlement at about 1300 m. The grasslands (230 ha) are private and were rented in 2015 with a long-term contract. The owner has 300 sheep and 80 suckler cows. The farm falls in Natura 200 site. Most of the grasslands are covered with juniper, rosehips and other scrubs and trees. The farmer does not intend to clear the juniper entirely, but to cut them continuously and to use them for essential oils.

The sheep are reared by free range grazing and for the cattle controlled grazing is carried out. During the day the cattle paddocks are 0.2 ha/day. For the night 0.5 ha are used for 5 continuous days. After that hens are put in the paddock. The hens are used to scatter the manure more evenly and to reduce the population of flies in the territory that bother and harass cattle, especially during the summer months. The area has natural cavities - caverns where water is collected. Water is also brought by hoses from the natural streams for watering the animals. The future plans include managing the grasslands only by grazing in the summer months (April to November).

The main challenges that were discussed were:

- A lot of anthills and molehills over pasture that makes it difficult to walk on and to mow the field;
- Lack of leguminous species on the grasslands – due to the long-term abandonment of the grasslands and the existence of juniper and other invasive species.



The next visit of the group was the family farm and pastures managed by Pavlin Antonov and Sonya Saeva near the villages Gintsi and Brakyovtsi. The farm has 32 suckler cows and 22 ha of pastures. All pastures are in Natura 2000 sites. Controlled grazing of pastures is applied and some of the grasslands are mowed once per year.

The group visited also grasslands that are rented by the municipality to the so called ‘subsidy farmers’ that have no grazing animals. Such farmers are only topping the grass and leave it to rot on the ground. This practice changes the species composition of the grasslands, creates soil acidification and loss of biodiversity. These practices are considered as practices that maintain the grassland in good agricultural and environmental condition, but in fact they are detrimental to the biodiversity conservation.

It was recommended to encourage only grassland management that combines animal grazing, mowing and application of manure (if necessary).



### **3.2. Workshop with Ministry of agriculture and food and Ministry of environment and waters representatives**

**13 October 2015**

Karl Buchgraber suggested to carry out the workshop on the pastures managed by Stefan Vlasakiev near the village of Gintsi. The Partnership group members, STEP experts as well the experts from



Department of "Feeding of additional agricultural animals and feed" at the Agricultural University, Plovdiv, experts of the Ministry of Environment and Waters, National service on Nature protection, and an expert of the Ministry of Agriculture and Food, Rural Development Directorate participated in the event.

The aim of the workshop was to create an environment for sharing ideas for technological support for improving the pastures and the economic situation of the farmers based on Austrian knowledge and the experience.

The territory of Natura 2000 sites in Austria is 17% of, while the area covered by Natura 2000 network in Bulgaria is 35%.

Most of the grassland management goals of the environmentalists and the farmers are common. However, the process of creating similar positions and formulation of common goals in Austria took time and included numerous meetings on the ground for years. The created dialogue between the different parties and stakeholders is considered as a good practice for conservation of the landscape and biodiversity together, and meanwhile improving the economic situation of the farmers and people living in the rural and mountainous areas in Austria.

Having in mind that the farmers and the grasslands are different it is necessary to work with each individual to achieve a common understanding and behavior how to use and maintain the countryside. The terminology used, the legislative framework and the understanding has to be harmonized. The process is long and continuous.

Activities that are carried out only for subsidies should not be allowed. Grasslands should be given first to farmers with grazing animals, then to farmers that mow and sell the hay. The ones that are cutting the grass and leaving it on the field to rot should not be supported.

It is important to maintain the high mountain pastures. Extensive management of high mountain grasslands has to be supported to motivate the farmers not only for economic benefits, but also for maintenance of certain certain species in Natura 2000 sites.

It is necessary to discuss the economic objectives with farmers and to train them. The farmers in Natura 2000 sites should not be turned into gardeners. They should be farmers and should produce hay, milk, meat, honey, etc. and maintain the grasslands and the biodiversity. Therefore, the subsidies have to be linked to the agricultural (farming) activities. The territory falling in Natura 2000 sites should be mapped not only in terms of biodiversity conservation but also in terms of proper agricultural activities to be carried out by the farmers.

The main recommendations of Professor Karl Buchgraber are:

- Regular meetings with farmers and environmentalists to discuss the goals and the objectives. Usually, the environmentalists are more active in discussions and therefore the focus should be given also to the farmers' perspective.
- To reinforce the importance of economic side of farming activities, that is quite neglected currently.

- When discussing with farmers it is necessary to focus only on one topic: for example grasslands in Natura 2000 that are managed; grasslands in Natura 2000 that are abandoned; practices for maintenance of grassland: just grazing, mowing and grazing, and application of manure, etc. ; abandoned grasslands – loss for farmers and biodiversity. All topics of interest of the farmers should be gathered and arranged according to the interest.
- The support for the grasslands management in Natura 2000 sites should be differentiated according to the farming activity performed: grasslands that are grazed should receive the highest support; the ones that are mowed and the hay is taken out of the field and sold – should receive lower support than the ones that are grazed. There should not be support offered for grasslands that are only topped and the grass is left to rot on the field. The same criteria have to be applied when renting the grasslands by the municipality.
- The farmers should be trained by the environmentalists in the field. The species should be studied not only in terms of their botanic importance, but also in terms of farming. The meetings between the farmers and the researchers should be carried on the field together. Individual and specific problems should be identified and solutions have to be sought. Professionals and practitioners should talk constantly and learn from each other.
- The farm visits revealed many unresolved issues with the ownership of land and buildings on farms; ownership of pastures and terms for leasing; rules for leasing, etc. All these issues suppress the entrepreneurship initiative and form attitudes for temporary survival. The long lasting care for the grasslands is replaced by ‘use’ and ‘not making any extra efforts’.
- It is very important that municipalities address the problems of farmers. The farmer has the most responsible attitude to soil and the pastures. The farmers are protecting the grasslands biodiversity and the environment – not the state controllers.
- The leasing period should be set up for at least 15 to 20 years for one and the same field. That will help the farmers to plan their activities and invest in silos, manure storage facilities or purchase of specific equipment. At least 10-15 years are needed to implement the measures of the investment plan of the farm.
- In Austria understanding between the environmentalists and farmers already exists. The efforts now are aimed to achieve an understanding of the importance of nature conservation and the importance of the farming activities amongst the consumers, because farmers are only 4% and the consumers that are using their products are 96%. It is recommended to start doing that in Bulgaria too.





## Conclusions

The situation with the alpine grasslands ownership in Bulgaria (Godech municipality) and Austria (Styria) is quite different. The majority of the grasslands in Bulgaria are owned by the municipality or the state, while in Austria the majority of the grasslands are private. Therefore the issues related to grasslands management and conservation also differ. Nevertheless, Bulgarian farmers found the study tour and Karl Buchgraber's recommendations important and motivating for their future farming activities.

STEP experts and the Partnership group will focus their common future activities on:

- Developing long-term vision for municipal pastures' management in Godech municipality;
- Proposing changes in the existing rules for use of municipal pastures to meet the needs of local livestock owners within the national-level framework;
- Develop proposals for differentiating the support schemes for grasslands management in Natura 2000 sites for grazing and mowing and introducing requirements preventing the topping of the grasslands and leaving the grass to rot on the field;
- Bringing the different stakeholders (environmentalists, farmers, representatives of local and national authorities (ministries), researchers, etc.) together and developing a common understanding of the natural values and needs for Natura 2000 grassland habitats management;
- Building recognition of the importance of the farmers amongst consumers;
- Sharing experience and best practices with farmers in other countries.