Crossborder grazing along the river Meuse

Case study description for GrazeLIFE

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GrazeLIFE has received funding from the LIFE Programme of the European Union







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1. Introduction of the Border Meuse case

Along the river Meuse, to the north of the city of Maastricht, arises a cross-border nature reserve of almost 35 km length and a size of more than two thousand hectares. It develops under the influence of river dynamics and natural grazing, after the riverbanks first have been excavated for high water safety and gravel extraction.

The Meuse, also known as Grensmaas ("Border-Meuse") in this part of its basin, forms the backbone of this spectacular, wild nature reserve.

This wild river nature, together with the adjoining old cultural landscape, makes the Belgian-Dutch landscape park "River Park Maasvallei". It is an eco-touristic attraction that still develops dynamically under the influence of the river and the grazing. In this wild nature along both sides of the Meuse, semi-wild bovines and horses live in their species-specific natural groups. They are separated by the river which forms the border between the Netherlands and Belgium. So, there are Dutch animals and Belgian animals and their ownership is divided between several animal owners and landowners. In the meantime, the animals have expanded their habitat with spontaneous border crossings, which makes the existing rules and regulations practically non-compliant. Although the animals live like wild animals, they are legally considered as kept farm animals; they fall under the regulations of kept animals. In order to get workable solutions, cooperation was sought with the executive and controlling authorities in the two countries. Partners have organized themselves into a network group that regularly consults with each other. This case highlights two problems that can be expected in several more places in the EU. First: those of kept animals that behave like wild animals, denoted by the term semi-wild. And second: spontaneous crossing of national borders as a result of this natural behavior. These local characteristics of this natural grazing system makes the case relevant for the total GrazeLIFE project.

The key question of this case is: How to deal with spontaneous border crossings of semi-wild grazers, which makes the existing regulations practically non-compliant? This document provides background and elaboration of this question as well as possible solutions.

A summary of the proposed solution for the spontaneous border crossings of semi-wild grazers: Labeling both the area and the animals with a brand new, special status. Make the management of natural grazing financially feasible and realistic. Define the terms "natural grazing" and "semi-wild" making them applicable in the long term to specific financing options (CAP). Develop a label for the production of natural meat so that the sales of surplus animals can be used to the best of value.

Situation:





2. Background of the case: flood protection in the 21st century by restoration of the ecosystem. Natural river in symbioses with natural grazing as an ecosystem service

The river Meuse used to be a natural border between the Netherlands and Belgium with a more or less predictable riverbed. During the last 100 years, river management focused primarily on facilitating navigation. The banks were fixed by dikes and the hinterland could be exploited with confidence.

Flood protection along the Meuse came high on the national agenda after the great floods of 1993 and 1995. High waters became a national disaster with flooded houses and evacuation of thousands of people. This was the start of a new approach with which the river and floodplains could naturally increase its water-absorbing capacity. Due to climate change, the Meuse must be able to process even more water in the future. A large part of the Border Meuse, the southern part of the river, has been redesigned since the beginning of the 21st century and a new landscape was created. The high gravel beds were excavated for several meters. Two species of wild living herbivores, so called semi-wild horses and bovines, were introduced. The result is a spacious riverbed with low banks and a lot space for water. The former field and meadow plots disappeared. Instead, low and higher natural (gravel) banks in the riverbeds appeared which are sometimes hundreds of meters wide and regularly (partly) flooded, depending on the amount of discharge of the river. Under the influence of the river dynamics a vast, wild nature reserve developed. This now forms an important north-south connection for flora and fauna. It was designated as a European protected nature area, a Natura 2000 area. Besides protection, the "Maasvallei programma" resulted in a valuable nature reserve with a strong increase in biodiversity (Appendix 7, "Maas in Beeld"). The area contributes to various ecosystem services (Appendix 3).

However, the positive outcome brought unexpected consequences. This document is about the clash between nature and law that was the result of the ecosystem restoration and the rewilding process. It also elaborates on possible solutions how to resolve the risen legal obstacles.

3. Introduction of the life project GrazeLIFE and justification of this case

GrazeLIFE is an international project initiated by the European Commission to gather knowledge, facts, and insights on the efficiency and (cost) effectiveness of different grazing systems related to EU-targets on biodiversity, climate adaptation and other ecosystem services. The EC calls for special attention to the complementary role of natural grazing through wild or semi-wild herbivores. In the current light of climate change, the search for sustainable management of nature reserves is extra important. Obstacles can be expected in the field of legislation and regulations, subsidies, social valuation, and certainly in the economic feasibility for the manager of the reserve and the grazers.

The origin of this Border Meuse project was to protect the surrounding area and its residents against flooding. Rewilding the river by widening the riverbed in combination with rewilded herbivores to prevent the vegetation to become obstacles for the river flow were measures taken to realize this aim.

Natural grazing as a form of grassland management is a vital part of the restoration

process of the ecosystem. Some important ecosystem services that stem from this ecosystem management can be identified: safety for residents, economic benefits through tourism and increase of biodiversity.

Natural grazing has a different impact and management system than agricultural grazing. It is very suitable for managing the vegetation of the large scale ecosystems, because of the specific habitat use of the bovines and horses. These animals live year round in their species specific social groups, which contain all ages and have an equal gender distribution. In principle animals stay for several generations in their habitat which make them part of the ecosystem. They develop extensive knowledge on terrain and food and reach even the zones of the reserve that are most difficult to access.

Concepts and terms relevant to this document: Rewilding, de-domestication, natural social group, herd, population, natural grazing, semi-wild, feral, status wild

Rewilding: This is a concept were human impact is as minimal as possible. This (extensive) conservation management gives nature freedom to develop. Working at a large scale facilitates this approach because it allows natural processes to take place.

Rewilding animals: When the living conditions challenge domestic grazers to use their natural species-specific traits, these animals can regain their original wildness, both individually and at group level. Eventually this will lead to optimized physical adaptations and results in strong and resilient animals. De-domestication is an often used term for this concept. De-domesticated or rewilded animals are well adapted to natural conditions but are not (genetically) identical to their wild ancestors.

A natural social group: The total of animals that live conform their species-specific social groups. Each species has its own specific social group composition. **Horses** are divided in 2 groups: 1) Harem groups including a leading stallion, his mares and young offspring. 2) Stallion groups, with males of different ages. A temporarily "in between" group can be composed of adolescents of both sexes. **Bovines**, on the other hand, are divided in: 1) Large, strong related female groups and calves. 2) Small bull groups. 3) Solitary old bulls. Each group has its own pattern of using the area. Altogether it is important that there are animals of all ages and equivalent distribution of sexes.

The herd: A term that is used for a number of animals living together in nature. This can be a single social group or a more natural structure of several social groups. In case of a natural herd it is the framework where hierarchy, role distribution, ages, sexes and genetic distribution are organized. This is totally different from a random number of kept animals as is often the case in agriculture.

A natural population: The total of all social groups or herds living in a large area, where animals can exchange to a degree that there is almost no risk of inbreeding or genetic bottleneck effect.

In the case of the Border Meuse, we are now dealing with a large structure of social groups on the Dutch side, and smaller, less structured herds on the Belgian side. The ultimate goal is to reach one natural population living in the whole Border Meuse area.

Natural grazing: Year round grazing by naturally living animals, in social groups. This can be grazing either by wild or semi-wild herbivores like in the Border Meuse. Natural grazing as form of management is optimal in large-scale areas. This management means: no additional feeding and no use of medicines, deworming or fertilizers. In case of natural grazing in smaller areas, only with some or even just one social group, the effect on habitat use and biodiversity is still high as long as the animals are grazing conform the definition of natural grazing. If there is enough room, animals will organize themselves into social groups. The herbivores fulfill an ecological key role, just like their extinct ancestors, auerochs and wild horse. Their influence on the development of vegetation and the landscape is by grazing, browsing, gnawing, fertilizing, seed dispersal, treading the soil. A dynamic pattern of diverse vegetation is the result. The animals keep the area open, limit dominant species and ensure biodiverse flora and fauna. In case of large scale natural grazing, animals are part of the ecosystem.

Semi-wild (grazers): De-domesticated horses and bovines that have been consciously managed by herd managers to be adapted and selected for natural conditions over several generations.

Feral: A concept that is not used in this document, but only mentioned to avoid misunderstandings. It is used for domestic animals that accidentally or unintentionally (shipwreck, abandoned e.g. after battle) had to survive in nature. There is no management plan behind it, and it is often seen as an unwanted influence on the ecosystem.

Status-wild: A legal concept which means that nature law and rules are applied instead of agricultural laws and rules. It serves to equate domestic animals that have gone through a rewilding process and live in an area where they are a key part of the ecosystem, to wild species. In this way they replace the original wild species - their extinct ancestors.

4. Natural grazing in the Border Meuse

The natural floodplains needed to be managed immediately after the gravel excavation, to prevent woody vegetation to develop (which would obstruct the water flow and decrease the high water safety). Year round, long term grazing became the preferred form of grassland management to maintain this openness and an unobstructed flow of the river. Two species of herbivores make a stronger ecosystem than just one, due to interaction and facilitation. Right from the start, this newly grazed area was a wild, unpredictable, rough habitat. It required the management by tough pioneers, strong survivors. Konik horses and Galloway cattle are such strong breeds. In addition to their breed characteristics, animals with a generation-long rewilding past have been selected and they were introduced as social groups from other nature areas. Living in natural social herds means that animals know each member for many years or even lifelong, which strengthens the social structure. That is very important because this enables them to survive and perform well in the floodplains in harsh circumstances. Natural grazing also means optimized adaptation to the habitat. They get to know the area and know where and when to forage. Bovines eat long grasses and are followed by the horses that prefer the short grass. While migrating through the area they form a dynamic mosaic landscape of grasses and flowers. In this type of nutrient rich ecosystem, the higher the numbers of animals (within the carrying capacity of the area) and the bigger the area, the more natural the populations, and eventually the more biodiversity can be expected.

These herbivores in cooperation with the natural morpho dynamics of the Meuse, create an authentic and diverse river ecosystem. The overall image is wild, but legally the animals are still considered kept animals with all the accessory rules and restrictions. These rules are about animal welfare, animal health and food safety. How the rules are interpreted and implemented differs per animal owner, but certainly per country (Appendix 1).

On both sides of the Border Meuse, attention is paid to animal health and animal welfare conform legal regulation. Despite EU rules, national governments can give their own interpretation to veterinary obligations (Appendix 1). Thus there are differences between Belgium and the Netherlands. Rules in Belgium require more intensive management. In addition, it can generally be stated that Belgian animal owners tend to provide optimal care, while Dutch animal owners strive to intervene as little as possible within the norms of the law. Unforeseen practical obstacles in the legal field occurred. In view of the political decisions taken in the past that have led to this natural river management of the Meuse, it is a necessity to find ways to remove these obstacles. Two main legal problems are elaborated: crossing the border and mixing stocks.

4.1 Crossing the border

Each of the cross-border areas is fenced all around which separates them from surrounding areas outside the nature reserve. The river was intended to form a natural barrier in between the two countries. However, the river became more shallow and easier to cross and the semi-wild animals no longer considered it a barrier and made the river part of their natural habitat. Unlike humans, in the EU kept animals are not allowed to cross national borders freely. They are imported or exported by their owners and each crossing requires actions. Border crossing has multiple forms, all with their own regulations. Clear rules exist for imports, for incidental crossing, for temporary grazing in the neighboring country, with exceptions for border residents and for specific situations such as a visit to a veterinary clinic (Appendix 1). All these rules and regulations exist to control the animal health and they are connected to international trade interest and food safety. It is strongly politically driven by an agricultural point of view. However, no rules and regulations exist for the new phenomenon of semi-wild animals that regularly naturally cross the Border Meuse. Free migration is an essential part of the natural social behavior of the herds. It contributes to the exchange of genes when for example stallions swim across the river to form a new harem. And this is what happens: when the semi-wild herds swim across the river they not only pass property limits, but also a national border. This leads to obstacles in the existing rules and legislation once created from an agricultural perspective. The existing rules offer no room for this new, more natural reality. In particular this aspect makes this case study interesting.

Together with authorities, we are looking for suitable solutions to do justice to the natural and ecologically valuable changes that have arisen. That is why we consider the case study to be important for GrazeLIFE. In the meantime we ask attention for a unique natural phenomenon.

Until now these crossings are taking place incidentally. In the future we can expect these to happen more and more, because both the area and the number of animals will grow. Also, the herd tradition of using the river as part of the animals habitat will establish and the river will no longer form a barrier to them. The herbivores have been rewilded for several generations and learn to explore their habitat. For example, by swimming and by using natural small gravel islands to hide a newborn calf. Or by migrating for fresh food at the other riverbank. This is exactly what the planners could have expected when choosing for naturally living horses and bovines in synergy with the natural river. And what attracts visitors because it gives them a sense of freedom.

Not only the active crossing of the animals of the river is an issue. Also the river itself

Approach of ARK Nature

The approach of ARK Nature and all the other involved nature organizations so far has been:

- Development of a document with a description of the situation.
- 2. The stakeholders have created a consultation group, involving fieldworkers and management of the relevant organisations.
- 3. Two respectively four spokespersons on behalf of the (land and animal) owners met at the Dutch Ministry of Agriculture and Nature and a conversation with the Belgian Ministry will follow shortly. The civil servants of the Dutch Ministry of Agriculture and Nature have contacted their Belgian colleagues directly to further discuss the matter.

A possible solution as proposed by the Ministry, is to label the whole area with a special status. This approach is in line with the nature of the area and seems attractive. The feasibility is currently being investigated by the Dutch Ministry and will be discussed with their Belgian colleagues. Although not yet realized, this will bring some additional issues to consider for the stakeholders, like the ownership of the herds, the herd management system, the health status and the possible meat harvest of superfluous animals and finances.

is rewilded. The boundary between Belgium and the Netherlands is starting to blur as the river is now allowed to change its course within the fixed winter bed. After a high water event, the deep boundary line (the agreed border between the two countries) may have shifted and Dutch animals may find themselves to be on Belgium territory, without having moved at all! Or after a long lasting dry period, the water is so low that the animals can pass the border easily.

As usual: the law follows new developments in society and gaps need to be closed.

4.2 Mixing animal stocks

Currently, the herbivores are considered kept animals. All regulations related to owning horses or bovines (cattle), apply to the owners of the animals, in the case of the Border Meuse meaning various nature organizations. The EU regulations are based in a framework law on an agricultural business model and apply to all kept animals. They mainly focus on food safety. Every member state further adapted and designed the regulations in its own way.

Regulations for cattle are much more complicated than for horses. The reason is that for horses there are fewer infectious diseases and there are fewer major interests in food safety because relatively little horse meat is consumed.

In general: within national borders, mixing cattle stocks is not allowed without administrative actions taken, while horses are allowed to mix. Spontaneous mixing

of animals or stocks between countries is considered much worse as this influences national health statuses of animal keeping. This applies to both species but for bovines more seriously than for horses.

Nature seems to act faster than politics, which makes the current situation rather inconvenient. A small advantage with this inconvenience is the fact that most border crossings so far are by stallions that look for mares across the river. Bovines take a bit more time to adapt. Regulations for horses are less strict than for bovines (see above). Although illegal, the spontaneous horse crossing has no financial consequences for the owners until now.

Regulations:

Based on EU rules, each bovine owner is obliged to have his own unique business number (a so called UBN in the Netherlands), on which all animals are registered. Furthermore, also an EU rule, each individual animal is identified by a unique life number (ear tags) and by the mothers number. Each of the following events must be reported to a desk: birth, death, relocation and infectious diseases. Incorrect administration brings fines or a stop to or reduction of subsidies.

Owners can voluntarily choose for several "free of disease declarations" of their stock, registered in their UBN. For example BVD (Bovine virus diarrhea) and IBR (Infectious Bovine Rhinitis) (Appendix 1). Such declarations or disease-free statuses can be achieved either by vaccinating or by testing blood samples. It is not allowed to add animals with a lower veterinary status to a higher status stock. Spontaneous mixing of stocks within a country, as can happen between stocks of different owners, is not allowed, because the statuses do not match. Fines are on a personal level and are bothersome for the owner. Stocks may be locked and penalties given.

Even more complicated is the fact that requirements to meet these veterinary programs, differ between Belgium (more complicated) and the Netherlands. Moreover, the research lab methods to get a disease free status differ. And even the consequences of handling the rules incorrectly differ. Again: there are high penalties, such as locking companies and high fines or a stop on subsidies.

5. Three possible solutions for the Border Meuse case

Here we describe three potential solutions for the issues described above. The first offers scope for unique management. The second is covered by existing arrangements for kept animals. The third implies a more drastic measure: the dedomesticated, semi-wild cattle and horses are declared wild and legally subject to laws for nature and seems only realistic on the long term.

5.1 Solution 1: A unique 'semi-wild label' status for the whole Border Meuse area

The proposed solution is to label the area with a unique (tailor made) status. This idea is a preliminary proposal from our personal contact of the Dutch Ministry. This status is a totally new approach and needs to be elaborated to define the contents. It will do justice to the animals as they will no longer be considered kept and domestic animals. A fairer name is semi-wild, considering the animals have unleashed the domestication traits (de-domestication) for many generations and have taken the route to become wildlife (rewilding). However, they are also not fully considered wild species: they will not have a so called status wild. The uniqueness of the proposed label lies in the fact that the most valuable and applicable components of two legal systems – that serves agriculture and nature will be united.

This new label should still guarantee animal health and welfare and not interfere with the EU framework law, for which each member state can give its own interpretation. It should also have the intention not to hinder animal owners - mainly nature organizations — to carry out their smaller scale grazing elsewhere in the country. It should be seen as management model towards large scale natural grazing. It should include conditions for agriculture and nature but should be formulated under the agricultural law.

Because this area is located in two countries, civil servants of the Dutch government contacted their Belgian colleagues on this idea. Preparatory talks are currently underway. Moreover, the Dutch CVO (chief veterinary officer) is aware of the issue and is willing to be consulted if necessary, or eventually she will contact the Belgian CVO. The ARK team will join the discussion as soon as practical implementation is due. Naturally, this will be done in consultation with the rest of the team, the area and animal owners and managers.

In theory, this unique status-label could implicate that not only the area but also the animals get a unique status, completed with agreements how to deal with identification, health, well-being, number regulation, (wild) meat production and subsidies. It will then do justice to both the rewilded area and the rewilded herd. As such, it will be an additional recognition in the list of the currently existing legal statuses with associated management guidelines, in the Netherlands:

- kept domestic animals (horses in a riding stable)
- kept wild animals (deer in a zoo)
- free living wild animals (wild boar in a national park)
- Proposal: free living de-domesticated animals (semi-wild)

The latter category will be an important aspect of the unique label to be developed for the Border-Meuse. The first three management forms are officially recognized

and there is clear regulation. The fourth form is currently missing in the list of management forms. It deserves general recognition, which means that it should have a clear legal framework, allowing it to be applied in all large scale areas where natural grazing with semi-wild (but kept) animals takes place. This is currently being elaborated by a working group called 'Framing Untaming', in which nature managers and experts from the Ministry of Agriculture and Nature work together (see Box). A Dutch initiative that

Framing Untaming:

In this working group, representatives of all nature conservation organizations with large grazers identify bottlenecks in regulation. A delegation discusses possible solutions with experts at the Ministry. They translate adapted protocols into the existing procedures. For example, the legally obligatory time frame to earmark cattle, was lengthened. Horses are now provided with a chip only after abandoning the area. It is allowed to transport animals in social groups, untied. A recent point of attention is the arisen disconnection of the right to subsidy only for marked animals and the delayed period for ear tagging after birth. The Border Meuse project is participant in this working group.

works for all large-scale year round grazing areas. Practical bottlenecks in the existing regulations are elaborated into workable protocols without undermining the original meaning of the regulation.

Obviously, the category of semi-wild animals will also be unique for Belgium and hopefully it can also serve as an example in that country for other areas without the complicating border problems. The question arises whether there is also a need in other European countries for a recognition of semi-wild animals and an associated framework.

A separate status for a cross border population may in the future be a working model for similar European situations, tailor made for each local situation.

5.2 Solution 2: The kept status stays unchanged

In case the authorities will not select this first option (a unique semi-wild label solution), there are theoretically two other possible solutions, each with their own, very different, consequences. The first of these alternative solutions consists of an

Existing policy lines, official measures and protocols in the Netherlands relevant for tackling the crossborder case:

In January 2000, a guideline was presented by the Ministry LNV (Agriculture, Nature and Food) to the government. It contains a detailed document on the management of cattle and horses in nature reserves. A distinction is made according to the area size in track A, B and C. Track A stands for large units of self-reliant process nature, the minimal size of the area is 5000 ha. Cattle and horses are no longer considered as kept. However, they are not equated with wild species. They are not allowed to be replaced or consumed. It is currently in place in two nature areas: Oostvaardersplassen and the Veluwezoom). Track B stands for a middle large scale area with a minimum size of 100 ha. with natural grazing and semi-wild animals. This applies to the Border Meuse case. Track C is the farmer, the private owner with intensive or extensive agriculturally kept cattle or horses (See Appendix 7, Guidance Large Grazers). The government can exclusively designate a so-called track A area. Track B is requested by the owner. Cattle and horses, living semi-wild under the limited control of the manager, benefit from some exception protocols in the regulations. The track A concept can probably help define the now proposed unique label for the Border Meuse.

approach that focuses on making existing agricultural regulations feasible in the seemingly complicated differences between Belgian and Dutch rules. This solution puts less emphasis on naturalness of the populations. It may more or less work in this case, but is not ideal to

translate to expected similar situations in other places in Europe. Two measures are needed to make the herd management workable and solve a great deal of the clashing rules within the existing regulations (Appendix 1):

1. Ownership:

Option 1. All animals get one existing owner. The owner will be one of the recent owners who takes over the management of all animals and works on behalf of all others. The management will be in accordance with the rules of the chosen country; the cattle and horses have all become either Belgian or Dutch. If they naturally cross the river border, they are no longer illegal. Provided the animal owner uses the existing border traffic regulations for the Benelux (Appendix 1).

Option 2. All animals get one brand new owner. All recent owners become a participant in a new legal entity, for example a foundation that owns the animals. A choice has to be made about the legal status of this new entity and which of the two countries becomes the legal residence of the entity and thus of the herds. This has consequences for the regulations that are applied and for the management of the herd. After this has been decided, the legal problems are not yet solved.

2. International border treaties:

It may be necessary to use existing Benelux treaties, which apply to both countries. International regulations are suitable for the management of a cross border herd of

kept animals. Therefore, existing rules only require a small adjustment. Bovines are currently allowed to graze in a neighboring country for 12 months. If the permit can be automatically renewed, this rule can work for the long term natural grazing in the Border Meuse case.

Horses are allowed to cross the border freely for several special reasons, such as a visit of a veterinary clinic. This is not yet organized for (natural) grazing. If this reason will be added, this rule can work in our case. Details of these regulations can be found further in this document (Appendix 1).

It will anyhow mean a lot of administration and coordination. This is not a smooth recognition of the naturalness but a second-best possible adaptation to agricultural regulation.

In case the one owner of all animals is chosen to be Dutch, the adapted regulations as defined within the Framing Untaming consultation group, can be applied. These regulations are more focused on natural grazing than the Belgian rules and are therefore preferable for management reasons.

5.3 Solution 3: Status Wild, changing the status from kept animals to wild animals

This is theoretically another alternative solution. It means a switch to a different legal status: from agricultural legislation to natural legislation. On the long term this could be an option for the Border Meuse, but for the time being this has proven to be an unrealistic or non-feasible solution for the parties involved. The consequences are as yet not only unacceptable for the current owners, but also for the Governments. If animals become wild species, there is no longer private property. This means that the government takes mandatory measures to prevent damage by animals, for disease transmission and for possible crossings between wild and kept animals.

In heavily populated countries such as Belgium and the Netherlands, governments are currently not receptive to this idea. However, for other areas in Europe this could be a viable option (see below). And should the Border Meuse area expand enormously in the future, this possibility will also emerge here.

From kept status to wild status can be a development process in time. The bigger the area, the bigger the herd, the closer it gets to a wild population. If the herd has enough animals to function as an independent, viable population, a change from kept to wild seems realistic in theory. As this shifts the responsibility from a personal owner to the government, such a status change requires an intensive diplomatic approach. Without support from the EU, such a status change will hardly be feasible for a national government due to expected opposition from the agricultural lobby. It will become even more complicated if animals can easily cross a national border.

That is an extra reason why this status change from kept to wild animals is at this moment not desirable for the Border Meuse case.

Since granting a status wild has quite major consequences for a country, it is recommended to put this option on the agenda in the EU. As early as January 2013, consultations took place in Brussels between ARK Nature and the EU, deputy director Ladislav Miko of DG Health and Food Safety. He is an advocate for a wild status for horses and bovines and advocated a pilot to prove how natural grazing delivers ecosystem services. The pilot took place in the Eastern Rhodopes in Bulgaria, starting in 2014. The wild status has not yet been realized. The Bulgarian government is still positive but cautious given the complexity of a status wild.

The recommended step to clear thresholds for European governments are as follows: bovines and horses are nowhere on national lists of native species. Introduction is only possible if a species is listed. Extra difficult is the fact that bovines and horses are extinct in the wild. With the current knowledge of genetics, the boundary between wild and domestic animals is getting less clear. Due to the important ecological function of the two (extinct) species, recognition based on their native habitat in Europe would be desirable. The EU relies on IUCN to designate species and habitats. The recommendation for the restoration of large-scale ecosystems in Europe with natural grazing by wild species that originally belong here, calls for the recognition of a Status Wild for (rewilded) bovines and horses by the IUCN as the nearest living representatives of extinct European species.

6. Recommendations for the Border Meuse case

The main solution for solving the issue of spontaneous border crossing is to label both the area and the animals with a brand new special status. This is a highly preferred option above the other two alternatives, but it is not a done deal yet; a lot of negotiation and arrangements will have to take place between all stakeholders. The second possible solution can be seen as the second best option, it builds on existing rules but does less justice to the potential growth of the area and to the naturalness. The third solution of a Status Wild, is a bridge too far for the Border Meuse at this moment.

Unique tailor-made status:

A unique, so called tailor-made status or label, designed by the two national governments for an extended natural grazing herd within the EU is recommended. In cooperation with the local stakeholders, it can do justice to the naturalness while it continues to guarantee both food safety and animal health and welfare. This seems to be a widely applicable management method, which can be realized in more places in Europe, with room for local adjustments.

Finances:

The overall challenge is how to make the management of natural grazing financially feasible and realistic. In all possible solutions there is a big uncertainty about the financing of the natural grazing project. Can existing subsidies connect and not clash with natural grazing by semi-wild animals with the many necessary and already formulated adjustments to existing rules? Given the numerous and complex rules on the basis of which agricultural subsidies are granted, and the complex enforcement of exceptions to those rules, a specific natural grazing subsidy seems more manageable for all parties.

Define concepts:

A proposal is to translate the defined concepts of "natural grazing "and "semi-wild", as described in the Border Meuse case and probably also in the other cases of the GrazeLIFE project, into useful descriptions for future application for financing options (CAP) for areas managed by natural grazing.

Meat production label:

There is an overall need to develop a specific consumers label for the production of natural meat so that the sales of surplus animals can be used to the best of value. Existing labels for organic meat or game are not suitable for meat of semi-wild animals managed conform natural grazing principles. Existing high quality labels usually assume intensively controllable working conditions, which is why they do not match meat production by semi-wild herds. The rules on game meat and their

consumption also do not cover the load. A specific label for "wilderness meat" is recommended.

Recognition of semi-wild animals and an associated framework:

The question arises whether there is a need for or an approach to recognize a category of kept semi-wild animals with reduced power to manage. As natural grazing usually takes place in large-scale areas, the existing regulations for intensive livestock farming can often not exactly be implemented. Currently, not (being able to) complying the rules, is punishable or reason to refuse subsidies. An official exception to the rules can avoid this. We might suggest to invent how the different (GrazeLIFE) countries handle this. Certainly in the light of future subsidy options (CAP) for this category.

Consultation groups: communication between fieldworkers, management and officials:

As long as natural grazing and semi wild animals are still relatively young phenomena, good experience has been gained in the Netherlands with a working group. It may prevent problems caused by unfeasible measurements for natural herds and provides clarity for enforcement. Experience has taught that such consultation is necessary to resolve current issues, but that permanent contact between these parties is beneficial to avoid misunderstandings. It enables parties to act in time in case of crisis. And it contributes to confidence between government and nature management parties. This way, all stakeholders are able to find each other, and work together based on recognition of everyone's needs.

7. Concluding remarks on the Border Meuse, a remarkably valuable project

The unique new landscape of the Border Meuse forms a pilot study for natural grazing in a diverse riverine, cross border habitat. It is an interesting example for similar grazing projects elsewhere in Europe. We hope the experiences gained in the Border Meuse can be used elsewhere in Europe, especially in cases where herds cross borders.

Of course we are not ready yet, the project is still going on. More conclusions and recommendations can and will be made on the way to a solution to the problem of natural border crossing.

Besides being of interest for experts and policy makers, also tourists and – moreover - the local residents benefit of the project. Many of them are already enjoying and experiencing their new backyard, their human habitat.



Appendices

1). Obstacles and differences on both sides of the NL/B- border in detail: operation, explanation, relation to the case:

It is good to realize that the EU makes framework laws, whereby each member state gives its own interpretation in national laws. This leads to mutual differences that in practice are difficult to deal with when borders are crossed.

I and R (Identification and registration) EU obligation:

Horses must be provided with a microchip (set by a veterinarian) and an EU-compliant passport, registered in a database.

Netherlands: horses in nature reserves B (100 ha or >), have to be chipped only when they enter public roads.

Belgium: chipping within 6 months after birth.

Bovines: animals are ear tagged.

Netherlands: 3 days after birth. In nature reserves > 100 ha: 6 months after birth.

Belgium: 7 days after birth.

(Desirable from the point of view of animal welfare and safe management, but the animal owner becomes ineligible for CAP-subsidies).

Ear tags in the Netherlands are yellow, in Belgium orange.

Animal health status, EU obligation.

Status conditions for the same diseases differ between *Belgium* and the *Netherlands*. Even the laboratory measurement conditions differ between the countries. Besides, the fines for disobedience differ.

The complete list of health regulations would be too extensive. Governmental websites can be consulted.

Legal liability: There is no clarity for the animal owners about the legal differences for liability (WA) that is tied to animal ownership between the two countries. Is it worse to be wounded by a Dutch or by a Belgian horse? And who owns or is liable for a calf / foal of international parents? This can be investigated legally, with a high probability that a decision on this has not been taken before.

In and export, crossing borders:

In this case it can be stated that the rewilded animals import and export themselves when they cross the border. This is not conform any regulation. Either their owners take the decision and look after the administrative consequences. Or there is just one owner who is allowed to have his animals grazing at the other side of the

border, under strict following the rules (see below). These are not properly aligned with the situation of the Border Meuse.

Cross border treaties: Fortunately, there are crossing border treaties that provide for a controlled border passage for kept animals that could possibly become fitting for the rewilded animals:

For cattle the so-called "border grazing regulation" exists: an animal owner may graze his animals on the other side of the border. Originally this was meant for the summer months only, the arrangement has recently become possible for 12 months. In our case this is only practicable if all animals become owned by one party. The health status of the country where the animal owner lives determines the required animal disease policy. It is not clear whether the 12 months period can be extended automatically.

For horses there is a "Memorandum for the movement of horses within the Benelux (and France)". This points to an exemption from the obligations for import and export, provided that it falls under a certain category. There is not a tailor-made category that suits our case. But it could be used if a category is added for cross border natural grazing.

Disease programs:

Differences in diseases programs between Belgium and the Netherlands complicate spontaneous border crossing.

Bovines: There are many differences between the control methods per disease between the countries, see below.

Horses: national heath regulation are the same in both counties.

Bovines:

IBR: (Infectious Bovine Rhinitis) *Belgium has a so-called Article 9 status* which means that the country strives for a national IBR -free status. Every company number/ UBN in Belgium has an immune status. Each new animal always must be blood-tested, comes in quarantine and is vaccinated. After that procedure, contact with cattle from another status, for example by sniffing each other the fence, is forbidden. Otherwise the whole stock will be locked. *The Netherlands have no special IBR status.* It aims / intends to introduce that status in the very short term. Animal owners can now voluntarily participate in certification.

BVD: (Bovine virus diarrhea) *Belgium: Has a mandatory national control program against BVD.* Consequence: every animal is checked by means of an ear sample shortly after birth, or with blood tests in case of import.

The Netherlands: has no special BVD status. Animal owners can voluntarily participate in certification.

Tuberculosis:

Belgium: Every cow that changes its group (UBN) is - regardless of age - subjected to a tuberculin test. The responsible receiving farmer must inform his farm - veterinarian within 48 hours after the arrival of the new animal. After checking both ear tag numbers and the bovine passport, the veterinarian performs the tuberculin test. In the event of a positive response, the veterinarian informs the PCE (provincial control unit) of the province in which the animal is located. A positive response counts as a purchase-destructive defect.

The Netherlands: the official TB-free status has existed since 1999. This status is monitored by screening cattle at the time of slaughter for bovine tuberculosis. In addition, there are rules for import and export.

2) Natural grazing, advantages versus agricultural grazing

Ecological benefits for biodiversity:

The impact on the vegetation is more versatile, good for plant diversity.

Diversification of vegetation structure, healthy dung, sand baths, wallowing sites, good for fauna diversity.

Improving soil, both by organic materials (carbon storage) and biodiversity.

Spreading and use of habitat is more diverse.

Behavior is predictable and relaxed (good for rangers and visitors)

Natural good health, good state of animal welfare.

Production of high quality meat with low costs.

Less management to execute.

Disadvantages:

More complicated to relocate animals

More complicated to treat animals

No applicable subsidies without compromising the principles of natural grazing.

3) Ecosystem services as a result of the Border Meuse project:

Flood protection

Increase biodiversity

Climate buffer

CO2 storage

Contribution to the well-being and health of residents

4) E.U. Cross-border policy nature, environment, space:

Benelux treaty passages doc. POLICY AREA 3.2 "ENVIRONMENT AND SPACE" Ambition: The Benelux is working together to improve the sustainability of society. The Benelux will contribute to achieving the European environmental objectives (EU 2020), a.o. strengthening the cross-border coherence of ecological networks; and implement European legislation in a coordinated manner;

Promoting animal health and welfare.

5) Partners:

6 nature organizations (Natuurmonumenten, Staatsbosbeheer, Natuurpunt, Limburgs Landschap, Agentschap voor Natuur en Bos, FREE)

5 animal owners (Natuurmonumenten, Staatsbosbeheer, Natuurpunt, Limburgs Landschap (B), Waterleiding Maatschappij Limburg)

Nature reserve managers and rangers

Ministry of LNV (Netherlands)

Ministry of Belgium (not yet personalized)

NVWA (Netherlands)

FAVV (Belgium)

Probably in nearby future: CVO's (Chief Veterinary Officers)

Local veterinarians

6) Relevant websites and information:

www.RVO.nl en www.nvwa.nl

www.FAVV.be, www.dgz.be, http://lv.vlaanderen.be/nl/home/over-

ons/departement-landbouw-en-visserij

www.levendehave.nl

European law: EUR-lex Richtlijn 82/894/EEG

http://www.benelux.int/files/5014/8965/1865/M20174 NL.pdf

België: Omzendbrief met betrekking tot de grensbeweiding met Nederland en met het Groothertogdom Luxemburg. PCCB Nederland: M-2012-17

7) Literature and relevant articles:

Leidraad Grote Grazers, 26-01-2000 Ministry of LNV, nr KST 43690, kenmerk X I, nr. 85.

Maas in Beeld, succesfactoren voor een natuurlijke rivier, 2008. Bart Peeters en Gijs Kurstjens.

Natural Grazing, 1999, Stichting Ark, ISBN 9074648770.

Dedomestikation-Wilde Herden zwischen den Menschen. Renée

Meissner, Herman Limpens, Natur - und Kultur Landschaft/Hóxter/Jena 2001

Wilde Weiden, M. Buntzel-Druke e.a. Arbeidsgemeinschaft Biologischer

Umweltschutz im Kreis Soest, 2008

