

Case Study “Diepholzer Moorschnucke” (Diepholz moor sheep)

Name of the indication	Diepholzer Moorschnucke	
Country	Germany	
Category	Fresh meat and meat products, sub-category lamb/mutton	
Protection status under Regulation (EC) 2081/92	PDO	

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1 The product and its region of origin

1.1 Product description



Figure 1 Diepholzer moor sheep grazing in the moorlands and in the barn.

The designation *Diepholzer Moorschnucke* (Diepholzer moor sheep) denotes sheep of a local breed (*Weißer Hornlose Heidschnucke*) that are kept in the region of the Diepholzer moorlands (*Diepholzer Moorniederung*). The sheep are particularly well adapted to the special conditions of the moorlands which are characterised by an extremely poor nutrient supply in soil and vegetation. Sheep grazing is employed in the area for landscape conservation purposes. It helps to keep the moorlands open and thus to maintain the habitats for a variety of rare and endangered species (see section 3). The sheep themselves belong to an endangered breed, so the beneficial effect for biodiversity is two-fold.

As a consequence of the extensive traditional keeping practice, the meat produced from the Diepholzer moor sheep is of high quality and regarded as a delicacy. The sheep almost exclusively feed on wild plants since they are grazed throughout the year; in winter feed may be supplemented occasionally. The meat has a low fat content (with a high share of polyunsaturated fatty acids) and is darker than usual sheep meat; the taste is similar to that of game.



Figure 2 Diepholzer moor sheep meat.

1.2 History

Breeding of Diepholzer moor sheep can be traced back in the Diepholzer moorlands to the middle ages and is closely linked to landscape characteristics. On sites with extreme soil conditions such as heath and moorlands, the sheep were the most important livestock animal and supplied their owners with meat, wool and fur. While roughly 100,000 moor sheep existed in 1940 (Petermann 2003), livestock numbers decreased sharply during the following

decades. Moorland grazing was given up because it was no longer profitable, and the moor sheep were increasingly replaced by meat sheep, until the breed became threatened by extinction. In the late 1970s, Jan Teerling, who today runs one of the four farms producing the moor sheep meat, bought the last remaining animals across Germany and re-established breeding of Diepholz moor sheep in the region. Using the sheep for moorland conservation projects ensured the survival of the race.

In the mid-1990s, three sheep farms founded the “AG Diepholzer Moorschnucke” (working group Diepholz moor sheep), the aim of which was to co-ordinate the marketing of meat and wool and of breeding activities. A fourth farm was included later as a guest member. The working group succeeded in registering their meat products as a protected designation of origin under EU regulation 2081/92 in 1997 (see below). Today the four sheep farms of the working group who use the PDO label keep approx. 3,000 mother sheep.

From the Diepholz moorlands, the sheep breed (*Weißer Hornlose Heidschnucke*) has spread to other regions where it is also used for landscape conservation purposes and to maintain wetland and moor areas, e.g. in the East German *Länder* and in South German and West German regions (Petermann 2003).

1.3 Area of production

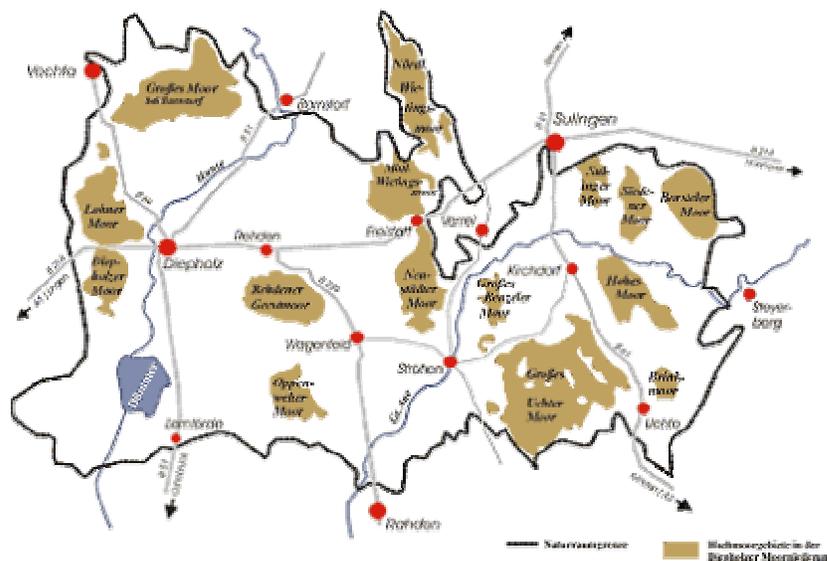


Figure 3 Outline of the Diepholz moorlands. The shaded areas are highmoors.

The area of origin of the Diepholz moor sheep are the Diepholz moorlands (*Diepholzer Moorniederung*), which is an area of around 100 000 hectares located between Bremen, Hanover and Osnabrück. The area comprises of 15 highmoors of around 24,000 hectares. An area of 15,000 hectares is designated as nature protection area and Wetland of International Relevance under the Ramsar Convention. Approximately 19,500 hectares have been proposed as Natura 2000 areas (Niemeyer 2004).

The moorland and wetland area is characteristically flat, the vegetation is dominated by heath, moor grasses, herbs and birches and is of poor energy value. The landscape serves

as habitat for over 30 endangered breeding bird species. It also provides favourable conditions for butterflies and other species groups.¹

Sheep grazing on the moor and adjacent areas is an integral part of renaturation and maintenance measures and necessarily has to be carried out according to nature protection principles.

2 Legal protection

2.1 Status of protection/labels and certificates

In the mid-1990s, the “AG Diepholzer Moorschnucke” applied for a registration of the meat products as Protected Designation of Origin under EC regulation 2081/92. Protection was granted by Commission Regulation 134/98 of 20 January 1998.² In a parallel initiative, the group developed the trademark label “Diepholzer Moorschnucke” (see Figure 4). The trademark is protected by national patent law and is used for the labelling of the meat products in addition to the PDO logo.

Furthermore, some of the individual sheep farms participate in an organic farming certification scheme (BIOLAND) and/or are members of NEULAND, an association and certification scheme that focuses on livestock keeping according to breed.



Figure 4: Trademark label “Diepholzer Moorschnucke”.

2.2 Specification

The specification defines the boundaries of the area of origin for the protected meat products and the characteristics and special production conditions.

It describes the feed requirements of the sheep and points out their relevance for land conservation. It states that the Diepholz moor sheep feed on ling heather and different other grasses, sedges and herbs. By eating birch and pine saplings and other scrub, the sheep make an essential contribution to maintaining the open Diepholz moorlands.

¹ http://www.mu1.niedersachsen.de/master/0,,C1156812_N1189587_L20_D0_I598,00.html#
² Commission Regulation (EC) No 134/98 of 20 January 1998 supplementing the Annex to Regulation (EC) No 1107/96 on the registration of geographical indications and designations of origin under the procedure laid down in Article 17 of Council Regulation (EEC) No 2081/92, Official Journal L 015 , 21/01/1998 p. 6-7.

It is also laid down in the specification that the Diepholz moor sheep are herded mostly on areas on which no mineral fertiliser or plant protection products are applied. Concentrated feed products are not to be used; in winter additional feed produced on the farm may be provided.

The Diepholz moor sheep have a natural tendency to wander which is satisfied by herd keeping. Meat production is carried out according to the relevant provisions of the national and European veterinary and food safety law.

The specification also emphasises the relationship between the characteristics of the product and the geographical region. The variety of plants provided by the moorlands which the sheep feed on results in a high content of bi-unsaturated fatty acids in the meat. Due to the extensive keeping practices and high movement activity of the sheep, the fat/meat ratio can be regarded as optimal. Colour and consistency of the meat are also to be labelled as good. The specification describes the organoleptic characteristics of moor sheep meat, pointing out its game-like taste and its tenderness.

2.3 Monitoring

The district government in Hanover is named by the specification as control authority. The proof of the regional origin is provided by the usual animal identification and registration measures at farm level (eartag and livestock register) and by documentation of delivery and purchase transactions at subsequent processing and retailing stages.

3 Environmental effects

The keeping of this particular sheep breed in the Diepholz moorlands is clearly beneficial for the environment, one of its main aims being the conservation of the landscape. It has contributed to the renaturation and maintenance of more than 5,000 hectares of moorland area (Petermann 2003). The extensive herd keeping practice does not cause any negative impacts on the environment or natural resources and is preferable from an environmental point of view to alternative agricultural and livestock management practices.

Nature conservation through sheep grazing

The major parts of the formerly large moorland areas in Northern Germany were destroyed by industrial peat cutting and drainage and converted to grassland and crop land in the 20th century. The regeneration and conservation of moorlands with their unique species composition today is one of the aims of landscape planning in the Diepholz district (*Landschaftsrahmenplan des Landkreises*, see Albert 2005), and public funding is made available to this end.

In the Diepholz moorlands, environmental organisations are active which have been commissioned by the nature conservation authorities to look after the regeneration of the moorlands. The BUND office³ which was established in 1983 is in charge of over 6,000 hectares of protected area and co-operates closely with the farmers whose sheep graze on these lands.

³ The BUND, Bund für Umwelt und Naturschutz Deutschland, is the German Branch of Friends of the Earth and one of the most influential environmental NGOs in Germany.

Sheep grazing is employed to support other maintenance measures such as controlled burning, mowing and mulching, and mechanical removal of birches. The sheep keep the vegetation low by feeding on the saplings, and thus prevent the unwanted vegetation from re-establishing. Sheep grazing alone can not ensure the maintenance of the moorlands, but without the sheep it would also be almost impossible to keep the moorlands open (Petermann 2003, p. 17, Niemeyer 2006). For instance, for the mechanical removal of birches to be effective in the longer term, the area subsequently has to be grazed in regular intervals. The BUND staff develops detailed grazing plans which take into account the conservational requirements of the individual lots of land and the measures that were taken previously. The grazing plans lay down priority areas for grazing to inform the shepherds where grazing should be most intensive (Niemeyer 2006).

Since moor sheep farming is based on a more or less closed production system with almost no external input, with sheep feeding mainly on wild plants and mostly in nature conservation areas, the overall effect on the environment can be regarded as positive. The meat production meets German organic production standards,⁴ although not all farms are certified organic farms (Dreyer and Petermann 2006).

3.1 Water

Since little or no mineral fertiliser and plant protection products are used, there is no significant pollution of water resources to be expected from moor sheep keeping.

3.2 Soil

Sheep grazing withdraws nutrients from the moorlands, which contributes to a favourable nutrient balance and to maintaining the characteristic nutrient-poor soil conditions (Teerling 2006, Niemeyer 2006). During the day, the sheep graze on the moors, heath and meagre grasslands. For the night, the sheep are taken either back to the barns or to grassland or cropland areas where they defecate, so that sheep dung is used for the fertilisation of cultivated areas. Through harvest for instance of hay, the larger part of these nutrients is again withdrawn from the areas and, if used as feed for the sheep during winter, re-fed into the closed-loop system. The grazing plans indicate areas for which fertilisation is desirable or acceptable.

Since there is little need for the use of heavy machinery for mowing or other purposes, sheep farming does not exert pressure on the soil and does not lead to soil compaction.

3.3 Landscape

Diepholz moor sheep farming is used for the conservation of a century-old moor and grassland landscape which, without the sheep, could only be maintained at high costs, if at all. Open and half-open landscapes which are not used for intensive agriculture and growing monocultures are rare in Germany and thus can be considered a special asset.

⁴ E.g. no use of fertiliser or plant protection products, low livestock density, no use of genetically modified organisms, livestock keeping according to breed, organic feed without addition of antibiotics and growth promoters.

3.4 Biodiversity

The moorlands serve as habitat for a number of rare and endangered species. Moor sheep graze on land protected as nature or water protection areas. By keeping grass and tree cover short, they create favourable conditions for wild birds such as Woodlark and Skylark, Meadow Pipit, Whinchat, Red-backed Shrike and Teal. But also rare butterfly, beetle and cricket species have re-established in the moorlands as a consequence of renaturation efforts (BUND 2002, Teerling 2006).

Among the typical plant species of the moorlands are cotton grass, sphagnum mosses, sundew and cranberry. Quaking bogs have re-developed in the Diepholz moorlands as a consequence of wetland restoration measures (BUND 2002).

Furthermore, the Diepholz moor sheep breed, *Weißer Hornlose Heidschnucke*, which itself is an endangered species, has been re-established in the area and today is also being kept in other German regions.

3.5 Energy/ resources/ waste

Little input of energy and resources is required for Diepholz moor sheep farming. There is no or little use of fertilisers and plant protection products, and the larger part of supplement feed is produced on the farms, with only mineral feed added. Grassland areas are mowed only once a year, and sheep herding is done without any transport vehicles, which implies that energy demand is low. Moreover, transport distances are short given that regional and direct marketing are predominant.

3.6 Air/Climate

The conservation of the moorlands has a positive impact on the local climate since they serve as storage space for water, which in turn has a balancing effect on the local climate (Seitz 2002). Moors also store large quantities of carbon which would be released if the moors were drained, ploughed and converted to agricultural area. Thus, the Diepholz moor sheep farming as an element of moorland conservation has a positive effect on climate, or at least prevents the negative impact of land use change.

4 Economic data and relation to regional development

Since the aim of Diepholz moor sheep farming is not only meat production, but also landscape conservation, the total quantity of the meat that can be produced is limited. The relevance of the product in terms of production quantity, sales volume and employment effects is thus restricted. However, it certainly contributes to regional development by creating a positive product image that is related to the region and supports both identification of residents with their region and touristic marketing.

4.1 Production and costs

Currently approx. 3000 mother sheep are kept on the farms which are associated in the AG *Diepholzer Moorschnucke*.⁵ The slaughter weight of the lambs is 15 kg on average and thus relatively low compared to that of usual fattening lambs (20-25kg⁶). This constitutes a considerable problem in terms of marketing and farm profitability, since a fixed price per animal is paid for slaughtering, independent of the carcass weight.

In the absence of financial support measures, Diepholz moor sheep farming currently would not be profitable as an economic activity. Farming practices require a high labour input, and breeding performance and slaughter weight are less favourable than in the case of conventional fattening sheep. Less than one lamb per mother sheep is sold each year. The available data suggest that the ratio may differ between 0.6 and 0.8 (Albert 2005, Petermann 2003), which, if extrapolated to the total number of mother sheep, would suggest that approximately 2000 - 2500 lambs are marketed per year.

The share of Diepholz moor sheep meat production in regional GDP is marginal. This can be seen from the fact that the production value of sheep farming in total is 0.5% of agricultural production in Lower Saxony, with the Diepholz moor sheep making up only around 1% of total sheep livestock.

The **production costs** cannot be specifically quantified for the Diepholz moor sheep. For one sheep farm, production costs of 77 Euro per mother sheep were indicated by the owner (Albert 2005); however, the farm is supported by a private foundation and the calculation thus does not include all costs for land use and labour. According to the literature, the costs for sheep farming in landscape conservation amount to between 131 and 195 Euro per mother sheep (Albert 2005).

4.2 Marketing channels

The four sheep farms so far have not established a common marketing strategy and make use of different sales channels. A relatively large part of the sheep is sold via the conventional market – more than 50% in 2002 (see Figure 5). The sheep are either sold alive or delivered to conventional slaughterhouses, which means in both cases that the meat is not marketed under the protected designation of origin. Revenues are lower when sheep are sold via the conventional market since no price premium can be achieved and the slaughter weight is low; however, farmers may have to choose this marketing channel for being less labour-intensive.

⁵ www.moorschnucke.de.

⁶ Data from Lower Saxony's farmers' association, <http://www.landvolk.net/2462.htm>.

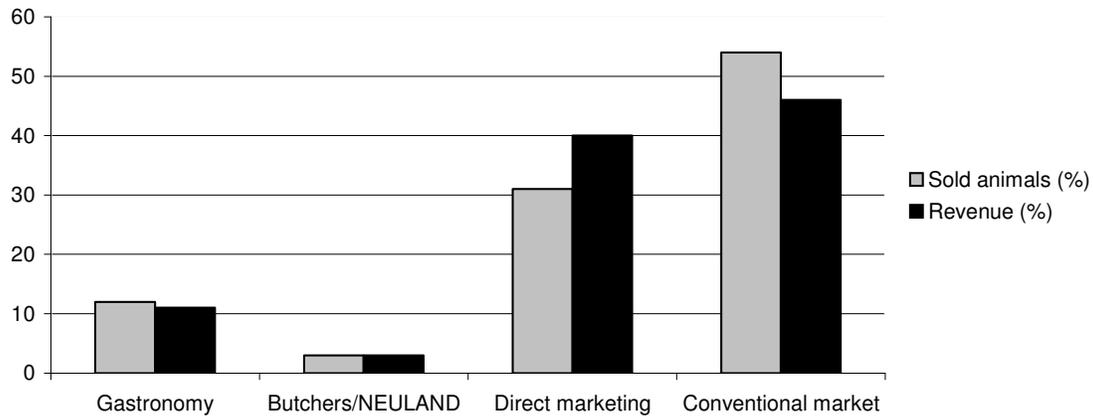


Figure 5 Shares of different marketing channels (2001/2002), after Petermann (2003).

Only the remaining 50% of the sheep meat is labelled as “Diepholzer Moorschnucke”. It is mostly marketed directly (i.e. purchased by private customers on the farms), at certain local shops, at a yearly market in Hanover or on similar occasions. Direct marketing implies a high management effort and depends on the support of volunteer and part-time workers and family members, which is why it can not be realised for a larger share of the products.

A smaller part (12% in 2002) is marketed via several gourmet restaurants, mostly in the region but also in some larger cities (Osnabrück, Minden, Berlin), and a minor share (3%) is sold via quantity buyers, mostly NEULAND. NEULAND is a private marketing organisation which focuses on livestock keeping according to breed and also includes some organic farming principles. Farmers who are member of the organisation deliver their products to marketing firms which then supply butchers’ shops and restaurants. However, neither NEULAND nor organic farmers’ associations seem to offer attractive conditions to the Diepholz moor sheep farmers that would encourage marketing through these organisations at a larger scale. This is due to the fact that they do not sufficiently value the conservational benefit from sheep grazing, and that the price premiums which can be achieved via this marketing channel are minor and do not cover the extra costs.

Therefore, efforts to improve marketing of the Diepholz moor sheep products⁷ concentrate on increasing the share that is marketed as regional product and on further developing regional marketing strategies (Petermann 2003). Since revenues are higher in the case of direct and regional marketing (see Figure 5), this could increase the overall profitability of farms. There is certainly scope for enhancing revenues by optimising marketing strategies. A closer co-operation between the four farms with regard to marketing strategies for instance might bring benefits. Currently, the marketing approaches differ between the four farms, also they participate in different additional certification schemes, which means that production standards are not uniform. There is also no common price list for Diepholz moor sheep products. However, the total production volume is not large enough for the farmers to establish a common marketing organisation.

⁷ For instance projects carried out by the *Dienstleistungsagentur für Regionalvermarktung*, www.dienstleistungsagentur.leb.de, see also section 6.

The regional origin of the product is of high relevance for marketing and for achieving price premiums. In spite of this, the protection of the designation of origin under the EU regulation seems to play a minor role according to the Diepholz moor sheep farmers (Dreyer and Petermann 2006, Teerling 2006), since it is not very well known among customers and less conspicuous than the trademark label protected under national law (see section 2.1). Also, given the low total quantity of labelled products which are mostly marketed directly and regionally, the PDO is less crucial for the protection against abuse and fraud than in other cases.

4.3 Prices

A price premium for Diepholz moor sheep meat can only be achieved if the products are marketed directly or if their specific quality and regional origin can be indicated. When sold on the conventional market, only the usual price (in the range of 4 Euro per kg carcass⁸) is paid by consumers. The carcass price in direct marketing for Diepholz moor sheep is between 6 and 7 Euro per kg, which means that a price premium of 50% or more of the usual price can be achieved. Prices at consumer level, e.g. for individual cuts of meat at a butcher's or in a restaurant, may be much higher (see Table 2).

The price premium is well accepted by the consumers, and there might even be some scope for further price increases given the fact that similar products in other regions in Germany are sold for even higher prices (Petermann 2003). However, even the premium prices do not fully cover the costs incurred by the farmers. For the sheep farm analysed by Albert (2005), revenues per mother sheep were 78 Euro when the lambs were marketed as premium products. Given that the production costs might be as high as 195 Euro (see section 4.1), the price would have to be twice as high in order to reflect the services for conservation provided by the sheep farmers and in order for the farms to be profitable. Thus, the farms rely on private sponsoring and various EU- and state-financed support programmes. Table 1 also illustrates the disparity between costs and revenues of Diepholz moor sheep farming.

4.4 Subsidies and sponsoring

The sheep farmers receive the usual payments under the Common Agricultural Policy, which before the latest reform were the ewe premium, the compensatory allowance for less favoured areas and a premium for the keeping of endangered livestock breeds which is granted and co-financed by Lower Saxony.⁹ With the implementation of the 2003 reforms, the subsidies are being changed to the new system of single farm and direct payments. In addition, the farmers benefit from an agri-environment scheme which is co-financed by the regional government of Lower Saxony and supports contractual environmental protection.¹⁰

However, none of the sheep farms involved would be able to survive without additional private funding. They either are backed by foundations or by private capital from other

⁸ Data from Lower Saxony farmers' association, <http://www.landvolk.net/2462.htm>.

⁹ Based on Regulation (EC) No 1257/1999 of 17 May 1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repealing certain Regulations.

¹⁰ Kooperationsprogramm Naturschutz, siehe http://www.umwelt.niedersachsen.de/master/C1009318_N11520_L20_D0_1598.html.

sources. Albert (2005) quantifies the balance of one sheep farm (see Table 1) and concludes that it depends both on state subsidies and on private funding.

Table 1 Estimated balance of sheep farm, adapted from Albert (2005).

Costs	
Sum of costs¹¹	179,300.00 €
Revenues	
Market revenues	64,750.00 €
State subsidies	40,150.00 €
Sum of revenues	104,900.00 €
Balance	- 74,400.00 €

Note that the costs given in the table are estimated based on literature values, while the revenues are those indicated by one of the Diepholz moor sheep farms. Nevertheless, the figures give an idea of the scale of the gap that has to be closed by private funding.

4.5 Supply chain and employment

Quantitatively the effect of Diepholz moor sheep farming on total employment within the region is marginal. The four farms involved employ up to 5 staff each which means that at most 20 jobs directly depend on the production of the Diepholz moor sheep meat. Indirectly, a small contribution is certainly made to securing jobs in related activities such as nature conservation, gastronomy and tourism within the region. Thus the effect is without doubt small, but beneficial.

Table 2 Summary of data on economics and effects on regional development

Production	
Production/year (Q)	Approx. 3000 mother sheep overall; 15 kg average slaughtering weight of lambs
%Regional GNP	Marginal
Costs	
Cost of production (per unit)	131 – 195 Euro ¹²
Sales (Q, EUR)	~ 2000 - 2500 lambs, not all marketed as Diepholz moor sheep
Sales Channels (%)	Conventional market, direct marketing, gastronomy, quantity buyers (NEULAND)
Prices	
Price on producer level (1st sale/direct marketing).	Direct marketing: 7 EUR/kg
Price on consumer level (meat cuts from butcher)	Varied, between 13.80 €/kg (goulash) and 44.80

¹¹ The costs are calculated based on an intermediate literature value of 163 Euro per mother sheep.

¹² Literature values for sheep farming in landscape conservation.

	€/kg (filet) ¹³
Price Premium (if applicable)	~50% (carcass price, direct marketing)
Marketing channels	
Sales within territory	Major share
Sales outside territory (national)	Minor share
Exports	none
Supply chain and employment	
Number of firms	4 sheep farms, local shops, several gourmet restaurants, butcher's shops
Level of Integration	Relatively low (no common marketing)
Number of employees	Approx. 20 staff directly employed on the farms; indirect positive effect on employment in related branches (nature conservation, gastronomy, tourism)
%Total Employment Region	Marginal

5 Alternative land uses and possible substitutes

In the case of the Diepholz moor sheep, the requirements that exist in the nature conservation areas leave few possibilities for alternative land uses. Technically, drainage and ploughing of moorlands and conversion to crop land is possible. The land could then be used for intensive agricultural production; a high fertiliser input would be necessary due to the low nutrient content of the soils. This would obviously lead to negative environmental effects, first of all to the destruction of the landscape and the associated damaging effects on biodiversity. Additionally, the effects on environmental media such as water, soil and air would be less favourable than in the case of moor sheep farming. Presumably the revenues from agriculture that could be earned would be considerably higher; however, such a scenario is not realistic given the regulatory circumstances.

In the protected areas, there are basically two alternatives to moor sheep farming. First, other sheep breeds might be used for the same purpose. This is done already to a certain extent – apart from the four Diepholz moor sheep herds there are several other sheep herds consisting of mixed breeds in the moorlands which are also used for landscape conservation. These breeds may be superior to the Diepholz moor sheep with regard to carcass weight, but not as well suited for conservation. Meat sheep breeds normally used for fattening, such as the Texel sheep which is widespread in Germany, however, could not be grazed on the moors because they are too heavy and unable to cope with the low nutrient content of the vegetation. Thus, the scope for increasing the meat quantity per sheep is limited. Replacing of the mixed herds by Diepholz moor sheep would become more attractive if the marketing of the product label was improved (see section 4.2).

The other alternative land use option consists in abandoning sheep grazing in the moorlands altogether. If the conservation targets for the areas were still to be achieved, the application

¹³ See www.moorschnucke.de.

of other conservation measures would then have to be intensified, which would result in higher costs but still might not be as effective.

Without sheep farming in the moorlands, the adjacent agricultural areas which are now used by the sheep farms would in all likelihood be fallow land. They are in use because the sheep farmers need them for growing feed, otherwise agricultural production would not be profitable on these lands (Niemeyer 2006).

In summary, there is no real alternative to sheep farming in the Diepholz moorlands as long as the conservation targets for the area remain the same. There is some scope for choice between different sheep breeds which vary in their suitability for conservation purposes and their meat yield. The strategies of sheep farmers in the region vary depending on whether they focus more strongly on the conservation aspect or on the profitability of their farms. They might also be influenced by the degree to which the profile of the regional label is strengthened and the marketing for the Diepholz moor sheep products is improved.

6 Marketing/ Consumer perception

Several activities of the “AG Diepholzer Moorschnucke” and of the individual sheep farms contribute to strengthening the profile of the product, creating a regional image and informing customers about the product quality, production conditions and the conservational benefits of moor sheep breeding.

The *AG Diepholzer Moorschnucke* maintains a common website (www.moorschnucke.de) that provides information about the sheep and their habitats, meat products and prices, sheep farms and their activities, and contact details. Some farmers organise farm parties and similar events at which visitors can watch sheep shearing, and participate in guided tours through the farm, moor excursions, moor sheep dinners, lectures etc., and of course buy moor sheep products. It is possible for visitor groups (e.g. schools or kindergartens) to visit the farms. The *AG Diepholzer Moorschnucke* also presents its product at supra-regional events such as the Green Week in Berlin.

The different activities make it possible for the public to experience the moorlands and to learn how to contribute to maintaining them. This is reflected in advertising mottos such as “Save the diversity by eating it” (*Rettet die Vielfalt, esst sie auf*) or “Protect nature with your shopping basket” (*Naturschutz mit dem Einkaufskorb*).

The sheep farms are supported in their marketing efforts by a service agency for regional marketing (*Dienstleistungsagentur für Regionalvermarktung*) based in the near-by city of Sulingen.¹⁴ The agency aims at improving the marketing of regional products and strengthening of regional identity awareness by co-ordinating the efforts of different actors, providing advice, and initiating information exchange and co-operative projects. The agency is publicly financed.¹⁵

The profile of the Diepholz moor sheep is promoted by a number of awards it has received. The meat quality has been recognised by gourmet journals and cooks’ associations. In 2003 the initiative was awarded a prize for local and environmentally-friendly production

¹⁴ Dienstleistungsagentur für Regionalvermarktung, Ländliche Erwachsenenbildung in Niedersachsen e.V., www.dienstleistungsagentur.leb.de.

¹⁵ Deutsche Bundesstiftung Umwelt, Lower Saxony, EU.

(“*Anerkannt natürlich regional*”), sponsored by the German Association for Landcare (DVL) and the German Society for Nature Conservation (NABU).¹⁶ Slow Food, an international organisation that aims at promoting gastronomic culture and protecting traditional foods against homogenisation by modern fast food, has placed the *Diepholzer Moorschnucke* on its “Ark of Taste” – a project that catalogues, describes and publicises forgotten flavours.¹⁷ Also, several articles about the sheep farms have appeared over the years in regional and supra-regional newspapers. References to the sheep farms are furthermore made in regional guide books and maps.

In summary, the Diepholz moor sheep enjoys a certain degree of publicity, although there is certainly scope for improving its profile and marketing strategies (Petermann 2003). The promotion activities emphasise both the regional origin of the product and its environmental benefits, relying on the unique combination of the two aspects. The key message addressed to consumers is: contribute to protecting ***your own regional environment*** by consuming this product. The PDO label has a supportive function in this strategy.

7 Synergies with other sectors

As shown in the previous sections, there are several points of contact between Diepholz moor sheep farming and other sectors and issues such as regional development, regional identity and culture, tourism and education.

The traditional land use practice of herd keeping on the moorlands is continued and placed in the context of landscape conservation activities. Marketing and public relations highlight the relationship between quality, environmental benefit and regional origin of the product and thus contribute to the identification of residents with their region. While no significant number of jobs are created in sheep farming itself, regional development may benefit from this strengthening of the region’s profile. Representatives of the tourism industry are interested in the Diepholz moor sheep and recognise their potential for advertising the region (Dreyer and Petermann 2006).

There is a certain degree of involvement of the sheep farms in community activities and education in the form of farm tours for school and kindergarten groups, farm parties and other events. Also, sheep farmers employ trainees.

8 Stakeholder

The main actors involved in Diepholz moor sheep farming are

- The four sheep farmers who join forces by way of the “Arbeitsgruppe Diepholzer Moorschnucke”
- The governments of Lower Saxony and the Diepholz district (*Landkreis Diepholz, Land Niedersachsen*) who are responsible for the nature protection areas on which the sheep are grazed and for the distribution of the state subsidies.

¹⁶ See www.moorschnucke.de.

¹⁷ See www.slowfood.com.

- The BUND office that is contracted by the regional authorities to supervise the renaturation and maintenance of the moorlands and connected to the Diepholz moor sheep through the co-operation with sheep farms and the development of grazing plans.
- Private sponsors and foundations supporting the nature conservation activities and sheep farms.

9 Summary

The case of the Diepholz moor sheep provides an example for a PDO product which has unambiguously positive impacts with regard to the environment. Sheep farming was re-introduced in the area in order to both save the species itself and contribute to conservation of the moorlands, not out of business interests, in the first place. Also, when compared to alternative land use options, the individual environmental indicators suggest that sheep farming has no harmful effects on any media and contributes to positive developments. The case study is characterised by the unique relationship between the sheep and their habitat.

Due to these specific circumstances, there are limits to the potential for economic profitability and for growth of the production of Diepholz moor sheep. In terms of production quantity and job creation, the impact in the region is minor, and due to the high costs sheep farming cannot be sustained without support from state subsidies and private funding sources, despite the considerable price premium that is earned.

Marketing efforts are undertaken which emphasise the regional origin and the contribution consumers make to the conservation of the moorlands – in most cases part of their own regional environment. It has to be noted that the PDO label itself does not play a major role in the marketing strategy, due to the small scale of the initiative and the high share of direct marketing. Thus, it is highly difficult to directly attribute any of the observed environmental impacts to the existence of the PDO. However, the PDO, along with other marketing activities, certainly does add to the regional profile of the product. Thus, despite the limited impact of the PDO itself, the mechanisms which the PDO is intended to support are clearly at work here: strengthening the identification of residents with the region, promoting regional development and contributing to the conservation of the variety of Europe's regions.

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