

The role of agricultural policy in maintaining High Nature Value farming systems in Europe

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Summary

The positive role of High Nature Value (HNV) livestock production systems in maintaining valued habitats and landscapes is achieving wider acceptance. The main threats to these HNV livestock production systems are an increase in productivity in order to improve their farm incomes and abandonment of agricultural land. The viability of some livestock production systems in HNV areas in Europe is investigated to see whether additional income is required to stay (or become) economically viable. Income can be improved by support provided by the Common Agricultural Policy or by producing superior quality products. The impact of future developments, like expansion of the European Union (EU) with the VISEGRAD countries (Czech and Slovak Republics, Hungary and Poland) and further trade liberalisation, on HNV livestock production systems is investigated.

Introduction

Agriculture plays an important role in the maintenance of biological and landscape diversity (Baldock & Beaufoy, 1993). For example, the 'montados' and 'dehesas' systems in Portugal and Spain and their grazing systems with black pigs have high environmental importance. Semi-natural habitats (including semi-natural grasslands) also are very important to biodiversity. The majority of semi-natural grasslands, however, have disappeared in the lowlands of northwest Europe due to the intensification of agriculture (Brouwer & Van Berkum, 1996). Abandonment of agricultural land could increase in areas with marginal agriculture with subsequent deteriorating effects on landscape and biodiversity (Baldock *et al.*, 1996). Marginalisation of agricultural land is presently observed in parts of Europe (e.g. Spain, France, Italy and Greece) with negative effects on ecosystems. Mitigating marginalisation processes requires policy measures towards rural development in Europe. This applies especially in areas with high nature values (Baldock & Beaufoy, 1993). Intensification of agriculture and abandonment of agricultural land are the main threats to areas with high nature values. Processes of intensification of the most productive land are coupled with the extensification (or abandonment of farming) of poorer lands. This development, which reflects the transition from subsistence agriculture to a market-oriented one, has been assisted by changes in policy measures. Intensive production practices have been largely assisted by CAP price subsidies, which concentrate support on the more productive farms, rather than to those which contribute more to environmental or social goals. The same support measures induce extensification i.e. abandonment and marginalisation. Processes of intensification and extensification have been further strengthened by the EU's commitment to a free internal market in agricultural production. Removing barriers to trade has stimulated intensification in areas with comparative advantages and extensification in less competitive regions (Caraveli, 1998).

The so-called High Nature Value (HNV) livestock production systems and their traditional management practices are important in their maintenance of biodiversity and landscape.

The economic viability of these HNV livestock production systems is of crucial importance. In this paper, the economic viability of some livestock production systems in HNV areas in Europe will be investigated to see whether additional income is required to stay (or become) economically viable and to assess the impact of future developments, like the impact of the Agenda 2000 proposals and expansion of the European Union (EU) with the VISEGRAD countries (Czech and Slovak Republics, Hungary and Poland) and further trade liberalisation, on HNV livestock production systems.

HNV livestock production systems in the study areas

Study areas were selected for further investigation. The selection had the aim of covering a range of geographical locations and most characteristic landscapes with HNV livestock production systems and practices in both southern and northern Europe. The location of the selected study areas with a high natural value is shown in Figure 1.

The selection of the livestock systems in the study areas considered to be responsible for the maintenance of the HNV of the areas is also based on the literature (Beaufoy *et al.*, 1994) and on the availability of data. Attention is paid to the share of the farming types in the total area of land, since it is important to continue traditional forms of management practices on agricultural land in HNV areas. The farming types selected in the study areas for further investigation are i) specialist dairying farms in the Black Forest, Asturias, Jura, Valle d'Aosta and Dutch Peatlands, ii) sheep, goats and other grazing livestock farms in the Pindos Mountains, Asturias, Dehesas, Lozère and Scottish Highlands and iii) specialist cattle-rearing and fattening farms in Limousin and Lozère. These examples are all specialized farming systems. Mixed farming types are less important in the study areas selected. Specialist farms cover the largest part of the UAA in the study areas. The share of specialist farms in the total UAA and the total number of holdings has increased or remained constant over time in all study areas selected. The extensive nature of the HNV livestock production systems selected in this research is reflected in the relatively low share of these systems in the agricultural output

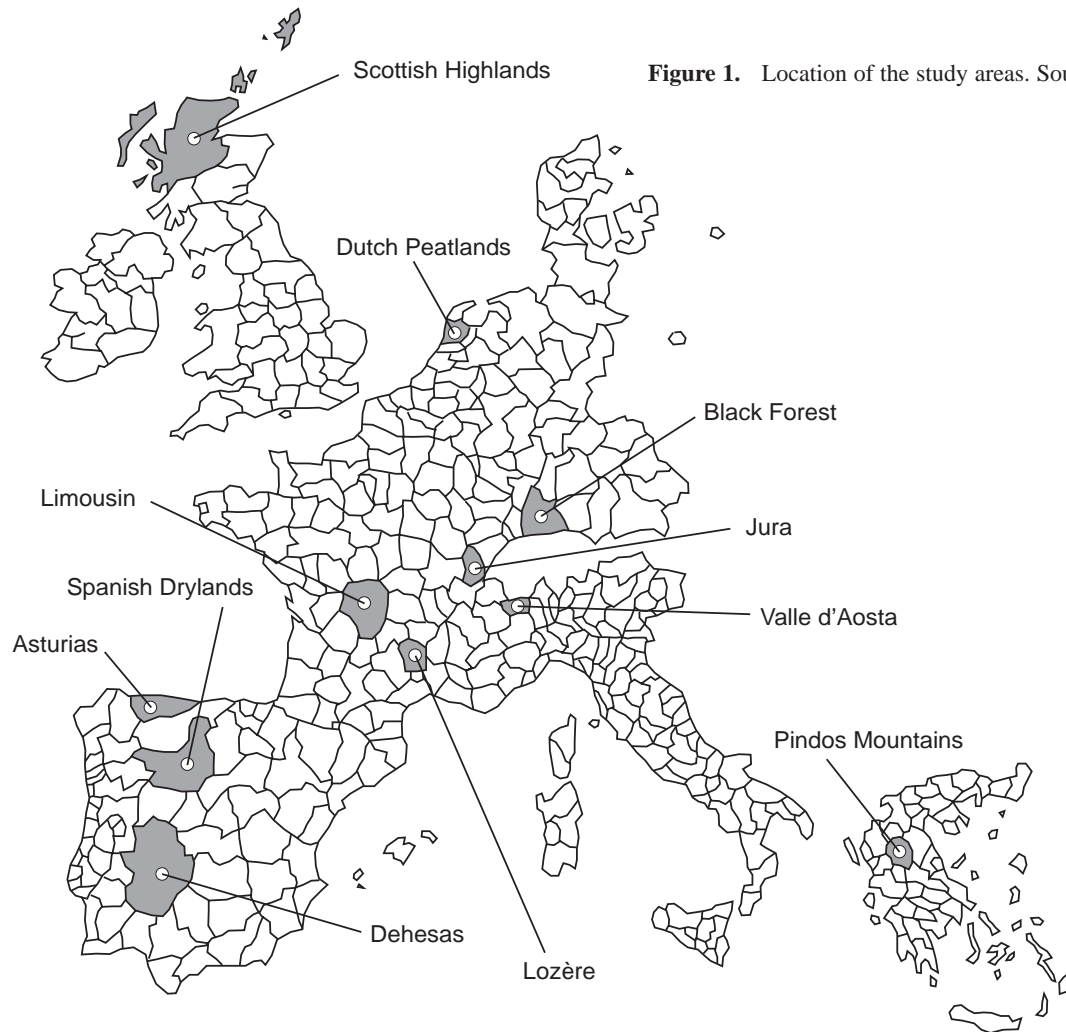


Figure 1. Location of the study areas. Source: LEI-DLO.

of the 12 EU countries in relation to the share of area they cover (Hellegers & Godeschalk, 1998).

The economic viability of the livestock production systems in HNV areas

Intensification of agriculture and abandonment of agricultural land are the main threats to livestock systems in HNV areas. Farms must increase their productivity in order to improve their income and stay or become viable. In cases where income is too low, agricultural land may be abandoned. So, a sound economic base is important for the maintenance of livestock systems in HNV areas. The economic viability of the livestock systems in HNV areas in Europe is investigated to see whether additional income is required to stay (or become) economically viable and maintain traditional forms of management practices. The consideration to continue farming is, however, not only based on the economic viability of the farm. Social and regional circumstances, and demographic and political developments, are important as well. Social aspects, such as farming as a way of life and the value of living in a rural area, can also play a role. Farmers practising low intensity agriculture are often under-employed and therefore see intensification as a means of gaining full employment and, of course, a higher income. The availability of off-farm employment can allow low intensity farming to continue on a part-time basis rather than as the sole source of income and activity. Whatever solutions are proposed to

sustain the economic viability, this has to be done under the restriction of viability of the habitat.

In general farms are considered viable if full factor remuneration is assured. However, in practice farms continue farming even if this is not the case. To define longer-term economic viability in this research, the development of their own financial resources has been used as a yardstick. Farms are considered viable when the development of the financial resources of the farm is positive or if the financial resource losses are less than the depreciation relating to replacement-cost value. Farms are considered to be at risk when their own financial resource losses exceed the depreciation relating to the replacement-cost value (Zeddies, 1991). On the basis of this concept farms in the study areas are divided into two groups: the viable farms and farms at risk. The individual farms of the Farm Accountancy Data Network (FADN) of the European Commission (CEC, 1989) have been used as a data source for this analysis. In the study areas selected over 70% of all farms are classified as viable. Farm characteristics of both groups are compared, to find out why farms are at risk or viable. Differences in the size of the farm (UAA) between both categories are modest. Viable farms did not turn out to be larger than the farms at risk. The intensity of farming seems to be a more determining factor for the viability of farms. The viable farms are often the relatively more intensive farms (Hellegers & Godeschalk, 1998).

Possibilities to improve farm income

Farm income can be improved by support provided by the Common Agricultural Policy (CAP) or by producing superior quality products. To produce superior quality products, small-scale local and on-farm processing is crucial, coupled with quality labelling schemes that emphasise the region of origin, or the production system (e.g. organic farming). Dairy farms in the Jura produce, for example, specialist local cheeses. The accompanying measures of the Common Agricultural Policy can provide support to the production of these kind of products. It is mainly the agri-environmental measure aid scheme (Regulation 2078/92) that encourages farmers to introduce or continue agricultural production methods compatible with the requirements of protection of the environment and the maintenance of the countryside and provides income support to those farmers. The measure must compensate farmers for any income losses caused by reductions in output and/or increases in costs for the part they play in improving the environment. It requires Member States to draw up programmes under which farmers are paid to farm in an environmentally friendly way. The agri-environmental programmes include, for example, aid to introduce or maintain organic agriculture in some Member States like Austria, Ireland and the Netherlands. These kinds of programmes seem to be suitable to support the environmentally friendly production of superior local quality products.

The agri-environmental schemes available in the study areas are rather diverse (de Putter, 1995). With many schemes only coming into operation in 1996, it is too early to estimate the area of land affected or the extent to which schemes under the Regulation assist the viability of farms in HNV areas or promote environmentally sensitive practices. Some assessments with different bases and levels of payments (derived from existing programmes) show that agri-environmental payments could potentially be a big source of support in most study areas, although these payments are mainly compensations. These payments seem to be very suitable to support HNV livestock production systems (Hellegers & Godeschalk, 1998).

Farm income can also be improved by other CAP measures. Some of the CAP measures affecting HNV livestock production systems will be described below. The CAP is a system of agricultural policy measures, including market and price support measures, direct payments, intervention (purchasing surpluses), export subsidies, production control (quotas, set-aside) and accompanying measures. In addition, LFA payments and horizontal structural measures can also be reckoned to be part of the CAP (Van Dijk, 1996). While many CAP measures have a negative effect on HNV livestock production systems, two kinds of measures are directed towards disadvantaged and environmentally sensitive areas; the LFAs and agri-environmental programmes (as described above). The compensatory allowances farms are eligible for on the basis of some measures are assessed to provide insight into the support to which the livestock systems in the study areas selected are eligible.

The amount of direct subsidies farms received before the 1992 CAP reform is available from FADN. There are large differences in the share of direct subsidies in the Family Farm Income (FFI) among study areas. In some study areas the FFI only remains positive because of the direct subsidies received. So, in these study areas direct subsidies are essential for HNV livestock production systems. Ewe premia make a considerable

contribution to the FFI, mainly on sheep, goats and other grazing livestock farms (Hellegers & Godeschalk, 1998). LFA payments have also significantly contributed to the survival of low-intensity systems in many areas, as on many farms such payments contain more than half of a farm's total income and are crucial to the survival of a big number of holdings (Caraveli, 1998). The share of direct subsidies in the FFI is higher on the category "farms at risk" compared to the category "viable farms", whereas the total amount of direct CAP agricultural subsidies is higher for the category "viable farms" compared to the category "farms at risk". Most viable farms also receive a higher level of indirect government support. Viable farms have a higher production value than the farms considered being at risk (Hellegers & Godeschalk, 1998).

Market and price policy changes of the 1992 CAP reform do not assist the viability of the HNV livestock production systems in the study areas selected or only to a limited extent, in terms of support provided. On specialised dairy farms the total beef premium payments are not sufficient to compensate for the decrease in the production value of beef. In total, market and price policy changes of the 1992 CAP reform have a negative impact on specialised dairy farms selected in the study areas (Hellegers & Godeschalk, 1998).

Attaching environmental requirements to income support

Most direct subsidies received by HNV livestock production systems are not subject to environmental requirements. For example there are no requirements attached to the ewe premia. Beef and ewe premia may have encouraged overstocking and local overgrazing (Balduck & Beaufoy, 1993).

Environmental conditions, based on regional circumstances, can be attached to direct subsidies in order to receive premium. It is important to take care of the way environmental aspects are incorporated in policies; they can provide wrong incentives. For example, the livestock density at the farm might need to increase in a case where the livestock density threshold required for premium exceeds the actual livestock density at the farm.

Any reform of the LFAs payments systems will not be effective unless environmental conditions are imposed (Caraveli, 1998). For example, the substitution of the present system of headage payments by payments per hectare should be followed by appropriate environmental conditions. LFA payments should be more focused on those parts of LFAs, where most high nature value conservation is found.

A possibility to integrate ecological viability is to take account of the 'carrying capacity' of the area in the development of policies. Farmers can be encouraged to maintain appropriate grazing pressures by means of premiums attached to some management requirements. For example minimum and maximum livestock density limits, based on the 'carrying capacity' of the area can be set, which need to be met to receive payments. These kind of tailor-made requirements have to be defined on a very local level, based on specific characteristics. The 'carrying capacity' cannot be derived so simply. A 'carrying capacity' derived from the roughage production per hectare seems to be inappropriate, since the 'carrying capacity' of the area will increase if mineral fertiliser is used (whereas the natural value will decrease). It is recommended that the 'carrying capacity' of the area should be determined on the basis of indicators like climate conditions, length of the growing season

and livestock occupation during the year or, in the case of agreed low-input management, on dry matter production per soil type on a regional and local basis.

Where production quotas are tradable, it is likely that quota will be transferred to areas with the most advantageous production conditions. It is possible to set quotas at a regional level. This does occur in some Member States like in France; a proportion of the milk quota is reserved for the LFAs. Environmental elements should be incorporated into quota regimes. For example for milk quota redistribution, a ceiling per hectare could be used for quota allocation (Balduck & Beaufoy, 1993).

Future developments and HNV livestock production systems

The impact of future developments on HNV livestock production systems is described in this section. First of all the possible impact of the Agenda 2000 proposals is described. Furthermore, the impact of expansion of the European Union (EU) with the VISEGRAD countries and the impact of further trade liberalisation, on HNV livestock production systems is discussed (see Hellegers & Godeschalk, 1998).

Agenda 2000

It is likely that HNV livestock production systems will benefit from the proposed adjustments in the CAP, described in Agenda 2000. These systems are often the more extensive systems, which will be eligible for headage premiums since they fulfil the livestock density requirements. Losses due to the termination of the maize for silage premium will be modest, since the area under this crop is limited. Moreover it is likely that HNV livestock production systems will benefit from the increase in the budget for agri-environmental measures. Finally, Agenda 2000 also proposes to transform the support scheme for LFAs into an instrument to maintain and promote low-input farming.

VISEGRAD countries

The situation in the VISEGRAD countries is changing rapidly. Traditional relatively extensive agricultural systems still occur in part of these countries and they have in general high natural values. Currently, the support for HNV livestock production systems is limited in the VISEGRAD countries; there exists some support for LFAs and organic farming. However, these countries are gaining valuable experience in developing initiatives that aim to maintain the natural value of agricultural land. Working groups are established which develop agri-environmental programmes. The future funding of agri-environmental programmes is still under discussion. The VISEGRAD countries face budgetary constraints and there is no guarantee yet that the EU will provide financial assistance for agri-environmental schemes. The share of real HNV areas in the VISEGRAD countries does probably not exceed the share in the EU significantly. This could imply only modest budget consequences in the case where the EU funds agri-environmental programmes in these countries.

Trade liberalisation

On the basis of the relatively high trade barriers which presently surround the EU and the large production potential in the VISEGRAD countries, it could be expected that trade

liberalisation between them and the EU may have a considerable impact on agriculture. However, it is not likely that removal of the trade barriers between the EU and the VISEGRAD countries will increase the production in the VISEGRAD countries drastically at once. Production in the VISEGRAD countries will recover gradually from the transition. Currently, these countries are not able to produce large quantities of homogeneous quality. The time path is an important aspect in this respect. The impact on the three farming types mainly responsible for the maintenance of HNV areas in the EU (namely: specialised dairy farms, specialised cattle-rearing and fattening farms and sheep, goats and other grazing livestock farms) will be limited. The impact of removal of trade barriers between the EU and VISEGRAD countries on production in the VISEGRAD countries will have consequences for the further intensification of agricultural practices. HNV areas may be threatened by a loss of nature and landscape values in the absence of adequate agri-environmental policies.

On the basis of the relatively high trade barriers which presently surround the EU, it could be expected that trade liberalisation between the EU and the world market will affect EU agriculture considerably. Estimations indicate that trade liberalisation will decrease the EU production of ruminant meat and dairy products. The question arises whether this will encourage extensification. It is also possible that only the intensive farms will survive. A considerable drop in ruminant meat and dairy sector prices can be a major threat to HNV livestock production systems. Production will be less profitable. The dairy product price will, however, probably not change drastically. Besides, the 1992 CAP reform and Agenda 2000 make farmers less dependent on prices; a shift to direct payments can be observed.

Concluding remarks

The aim of this study was to investigate the economic viability of some livestock production systems in HNV areas in Europe to see whether additional income is required to stay (or become) economically viable

The main livestock systems responsible for the high natural value of the area are specialist dairy farms, sheep, goats and other grazing livestock farms and specialist cattle-rearing and fattening farms. Over 70% of all farms selected in this paper are classified as a viable farm in an economic sense. Farm income can be improved by support provided by the Common Agricultural Policy (CAP) or by offering superior quality products. Direct subsidies are important for most HNV livestock production systems. Market and price policy changes of the 1992 CAP reform provide only limited support to HNV livestock production systems. Agri-environmental payments could potentially be a big source of support to these systems, although these payments are mainly compensations. Both LFA payments and agri-environmental payments help to focus support in areas which need it most. LFA payments should be more focused on those parts of LFAs, where most high nature value conservation is found. It is recommended that environmental conditions should be attached, based on regional circumstances to direct subsidies. These recognitions are reflected in the current proposals for the reform of the CAP, the so-called Agenda 2000 proposals.

Prospects for further reductions in price supports within the

framework of Agenda 2000 and new trade negotiations will lead to reductions in income and will put pressure on HNV farming systems. However, it seems that HNV livestock production systems will not be seriously affected in the case where future developments are guided by appropriate policies. Pressures can be offset by the emphasis given in Agenda 2000 on the overlap between LFAs and HNV areas, as well as on the maintenance and promotion of low-input systems. Agenda 2000 advocates greater emphasis for rural development and the rural environment. This can be considered as a step towards a more integrated rural policy. The valuable experience that the VISEGRAD countries are gaining in developing initiatives that aim to maintain the natural value of agricultural land seems to be beneficial. Nevertheless, it is recommended that to guide the development of agriculture in the VISEGRAD countries, incentives for agricultural practices, which are beneficial for the environment, will need to be provided. In addition, appropriate policies to meet decreasing prices are important in the light of future developments like further trade liberalisation, which might affect prices.

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