

PASTORAL (2003) Gaps in understanding of European pastoralism
PASTORAL Project Information Note 7

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This series of eight Information Notes and accompanying video are intended to provide a brief introduction to some of the issues facing pastoralism in Europe today. They were produced as part of the output from the PASTORAL project, an EU-funded Concerted Action which considered the agricultural, socio-economic and ecological characteristics of high nature value pastoral systems in Europe.

The PASTORAL project was steered by a consortium consisting of the Scottish Agricultural College (UK), European Forum on Nature Conservation and Pastoralism, ALTERRA, (The Netherlands),

Institute for European Environmental Policy (UK), Asociacion para el Analisis y Reforma de la Politica Agrorural (Spain), Universidad Autónoma de Madrid (Spain), Escola Superior Agraria de Castelo Branco (Portugal) and Coordination Paysanne Européenne (Belgium).

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Further detailed information on the PASTORAL project and European pastoralism can be found at:
www.sac.ac.uk/envsci/external/Pastoral/default.htm

- There are numerous gaps in information relating to pastoral agriculture that require further research. This Information Note details the research needs identified by the PASTORAL project as being a priority. Although this Information Note separates research priorities into several sections, research into European pastoralism needs to be interdisciplinary if the links between the agricultural and socio-economic characteristics and the nature value of systems are to be fully understood and if appropriate and effective policies are to be developed.

General agricultural research

- A previous Information Note in this series describes the fundamental importance of developing a typology of high nature value pastoral systems¹. A typology could act as a tool for raising the visibility of pastoral systems amongst European decision-makers and would allow greater targeting of policies to this group.
- More research need to be undertaken to clarify the greater quality of traditionally produced pastoral products compared to those produced intensively. This information could then be used to assist in the promotion of pastoral products.
- Similarly, the health of animals in pastoral systems is often cited to be better than those in sedentary intensive systems. Data on this needs to be consolidated and used in the promotion of pastoral products.

Socio-economic research and pastoral development

- A huge amount of knowledge, particularly in the fields of anthropology, sociology and development, exists on pastoralists in countries outside of Europe (particularly in Africa

¹ PASTORAL(2003) *The need for a typology of European pastoral systems*. PASTORAL Information Note 2

and Central Asia). However, European pastoralists have not been given the same level of attention even though they often face similar problems of marginalisation, conflict with settled farmers and land tenure issues. Identifying some of the social problems facing pastoralists and participative ways in which these can be overcome is critical if European pastoral cultures, and the nature value they maintain, are to survive and remain viable in the future. This priority is recognised in the Convention on Biological Diversity:

“Mobilisation of farming communities, including indigenous and local communities, for the development, maintenance and use of their knowledge and practices in the sustainable use of biological diversity in the agricultural...to set up and maintain local level forums for farmers, researchers, extension workers and other stakeholders to evolve genuine partnerships”

- Socio-economic research priorities of relevance to pastoralism include:
 - Evaluation of the contribution of pastoralists to rural economies and the European Model of Agriculture.
 - Actor network analysis of groups of pastoralists to assess capacity building needs and power relationships, both within groups and with regional and national decision-makers.
 - Development of participative frameworks that enable pastoralists to input into the management of resources and development of policy. The willingness and capacity of pastoralists to engage in policy development also needs to be assessed so that appropriate action can be taken. The development of methods for marrying top-down and bottom-up approaches to policy development and pastoral resource management will be important in this regard.
 - Conflict resolution strategies need to be developed and implemented - many pastoral systems are 'land-less' and conflicts arise when shepherds move their flocks or herds across the land of settled farmers (e.g. in Romania, Andalucía and in some protected areas). This problem is particularly characteristic of transhumant systems.
 - In many areas, the rights of pastoralists to graze land are not underpinned by law and in others legal rights have lapsed. The suitability and feasibility of re-establishing past legal rights and new rights where none have previously existed needs to be assessed. Otherwise, pastoralists will continue to be vulnerable to marginalisation.
 - Developments of mechanisms for alleviating hardships such as inadequate housing and social isolation. No matter how attractive policy incentives are, they will not keep people in the profession if the personal hardships they face are unacceptable.
 - Assessment of the perceptions of pastoralists among a wide range of stakeholders and of ways in which to change negative perceptions through awareness raising.

- Social anthropological research needs to be conducted to establish the values that pastoralists place on their way of life, traditions and culture. This will assist the development of appropriate participative frameworks within which pastoralists can contribute to policy development.
- Evaluation of the cultural importance of pastoralism - linguistic importance, traditions, music, food, traditional crafts. The cultural importance of the systems can be used to promote their products, to raise awareness of the cultural benefits that pastoralists deliver and, therefore, their importance in rural tourism initiatives. In general, this will also act to raise the status of shepherds and their traditional practices.

Ecological research priorities

- Explaining in simple terms the complex ecological interactions between pastoralism and nature has to be a high priority if we are to develop meaningful conservation strategies and environmentally sensitive agricultural policies. Similarly, a high priority for the future is to determine the best policy mechanisms to sustain the temporal and spatial ecological diversity that pastoralism creates. Key to this is the defining of ecological limits of tolerance:
 - Farming systems are dynamic and inevitably change as they develop. Many of the farmers visited during the Spanish and French workshops have remained viable by adopting modern livestock production techniques (such as the intensive finishing of lamb and beef) yet still graze their animals on large pastures of semi-natural vegetation. In the Romanian Carpathians, however, there are approximately 1 million semi-subsistence farmers (accounting for 6.3 million animals or 70% of the national sheep flock) whose farming practices have remained relatively unchanged for a century or more. As a result, large areas of semi-natural grassland habitats remain. Just under one-third of the entire Carpathian mountain chain is covered by grassland habitats dependent on the continuation of pastoralism². Pastoral systems in central and eastern European countries are likely to undergo very rapid development in the near future, following a long period of relative stability.
 - Preventing development will result in the preservation of non-viable 'museum-like' farms, which is neither appropriate nor socially acceptable. On the other hand, certain changes need to be prevented if pastoral systems are to continue to maintain biodiversity. Defining ecological limits of tolerance³ will allow the identification of practices that need to be retained (and those which don't) in order for the high nature value of pastoral systems to be maintained. Limits of tolerance can then be identified for essential practices. One example of this would be to determine an annual range of stocking densities and stock types for pastures according to the land type, rather than having rigid and often arbitrarily set rules.
 - Allowing flexibility is advantageous for a number of reasons. It gives farmers the ability to respond to climatic conditions, pasture quality and to implement his or

² Webster, R., Holt, S. & Avis, C. 2001 *The status of the Carpathians – a report developed as part of The Carpathian Ecoregion Initiative*. WWF, Vienna.

³ Luick, R. & Bignal, E. 2002 The significance of EU agricultural policy on the nature conservation of pastoral farmland. In: *Pasture Landscapes and Nature Conservation*, Eds. Redecker, B., Finck, P., Härdtle, W., Riecken, U. & Schröder, E., pp 329- 346. Springer-Verlag, Berlin

her own stock management preferences. This in turn will encourage heterogeneity in pastoral habitats at the farm scale and at the landscape scale, producing a mosaic of habitats at different stages. A previous Information Note in this series provides an overview of why a mosaic of vegetation types and structures is necessary for the different life-cycle stages of species associated with pastoral habitats⁴.

- Additional ecological research priorities include:
 - Understanding the interaction between the environment, pastoral management practices and the life-cycle strategies of species associated with pastoralism to aid the development of more effective and targeted conservation and agri-environment schemes.
 - Understanding of the importance of large areas of pastoral habitats for metapopulations of individual species and for accommodating species with conflicting requirements.
 - Assessing how best to apply the principles of pastoral systems to the management of protected sites.
 - Assessing the importance of carcasses within pastoral systems as food for valued vertebrates and the role of carcasses in nutrient recharging of nutrient-poor semi-natural vegetation.
 - Consolidation of the research into the different ecological implications of grazing by wild herbivores and grazing by domestic livestock.
 - Assessing the influence of past management practices on current nature value.
 - Clarifying the environmental sustainability of pastoral systems. Audits of high nature value systems in terms of input efficiency (e.g. energy), low or non-existent levels of pollution and environmental benefits such as prevention of fire need to be carried out. This information can be then be used in the promotion of pastoral products.

Policy research needs

- The precise role of specific policies in influencing the decline or maintenance of high-nature-value pastoralism needs to be examined. Most research to date has been broad-brush. There is a need for more detailed analysis of the effects of specific policies, including market regimes (sheep, beef), support for less favoured areas and agri-environment schemes, on pastoral areas of high nature value.
- Modifications and alternatives to existing policy measures need to be analysed with a view to developing models that will help to sustain pastoral farming.
- Comparative analyses are needed (“policy on” versus “policy off”) in order to acquire a better understanding of policy effects, potentially using systems within the EU and those in Accession countries to help distinguish policy impacts on high nature value systems from non-policy drivers. This could include an analysis of which, if any,

⁴ PASTORAL (2003) *The nature of European pastoralism*. PASTORAL Information Note 3

variants of agri-environment and less favoured area policy are helping to sustain or improve high nature value pastoral systems.

- Analysis of past and present policy drivers provides a foundation for the more speculative exercise of considering potential future impacts (of current or alternative policies).
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A total of eight Information Notes have been produced from the PASTORAL project:

- 1: *An introduction to European pastoralism*
- 2: *The need for a typology of European pastoral systems*
- 3: *The nature of European pastoralism*
- 4: *Examples of European pastoral systems*
- 5: *Trends and threats to the viability of European pastoral systems*
- 6: *Potential policy approaches to support European pastoralism*
- 7: *Gaps in the understanding of European pastoralism*
- 8: *European pastoralism: farming with nature*

Many of the points in these Information Notes are illustrated by examples taken from the location of the four main workshops held during the course of the project, Sierra de Guadarrama Mountains (Spain), Transylvania (Romanian Carpathians), Isle of Islay (Scotland) and the plain of La Crau (south-east France).

These Information Notes were compiled by Sally Huband (the dedicated officer employed by SAC on the PASTORAL project) with additional input from the other members of the project steering group: Davy McCracken and Gwyn Jones (SAC), Eric Bignal (EFNCP), Berien Elbersen (ALTERRA), David Baldock and Harriet Bennett (IEEP), Guy Beaufoy (Spain), Begoña Peco (UAM), Luis Pinto de Andrade (ESA-CB) and Gerard Choplin, Isabel Bermejo and Jesús Garzón (CPE). The project meetings enabled us to consider and discuss the future of pastoral systems with many colleagues drawn from our own institutes and elsewhere throughout Europe, and we offer our thanks to them for their useful contributions towards the development of many of the views presented here.