European biodiversity significantly depends on the availability of habitat that is not intensely farmed. It is therefore important to identify grazing systems for livestock that require relatively little land management. Sheep grazing and reindeer herding are examples of such ‘large-scale low-input grazing systems’ (LSGS). However, they must be economically viable as well as environmentally beneficial to be sustainable. A new study has assessed the sustainability of LSGS across a wide range of European settings.

Countries committed to the Convention on Biological Diversity aim to significantly reduce the current rate of biodiversity loss at regional, national and global levels by 2010 and the European NATURA 2000\(^1\) programme encourages LSGS in order to create open habitats for a range of species. European biodiversity significantly depends on LSGS, as up to 30 per cent of endangered species live in areas that are grazed, including tundra, heath, grasslands and marsh habitats.

The Landscape Development, Biodiversity and co-operative Livestock Systems in Europe (LACOPE)\(^2\) project has identified LSGS that provide habitats large enough to ensure survival of viable populations of endangered species. The researchers took the view that to maintain sustainability, an LSGS should meet human goals and be economically profitable, but should also be environmentally friendly. Many factors can affect sustainability such as geographical location, especially when livestock are reared at great distances from a suitable market place. In addition, the reform of the Common Agricultural Policy and protective environmental policies have placed economic goals at odds with conservation needs.

Researchers used a questionnaire to survey expert opinion on designated LSGS. In total, 27 experts, including scientists and LSGS managers, completed the questionnaires. They were asked to assess 27 different LSGS, covering a range of habitats, including Mediterranean and Boreal regions, and a variety of livestock, including goats and sheep. As part of the study, the participants were asked to rate the LSGS according to 5 key sustainability criteria: pastoral use, environmental, economic, social and market and development.

The results revealed a high level of correlation amongst responses, which indicates that there are areas of common ground for policy development covering diverse LSGS in Europe. While the LSGS generally scored highly against the pastoral use and environmental criteria, weaknesses were found in the economic and social criteria. Other concerns voiced by the participants included:

- changes in land-use (either abandonment of less economically desirable land or intensified use of other areas)
- spatial and temporal management of flocks
- unbalanced forage resources
- a lack of professional shepherds
- a lack of a marketing framework for local products

Development of new policies for LSGS management could help combine economic profitability of LSGS with nature conservation strategies and agri-environmental policies in the EU.

2. [http://www.nbu.ac.uk/biota/lacope_page.htm](http://www.nbu.ac.uk/biota/lacope_page.htm) and [http://www.ilpoe.uni-stuttgart.de/projekte/lacope/](http://www.ilpoe.uni-stuttgart.de/projekte/lacope/). LACOPE was funded by the European Commission under the Fifth Framework Programme.


Contact: rcaballero@iai.csic.es

Themes: Agriculture, Biodiversity