ŽEMĖS ŪKIO MOKSLAI. 2007. T. 14. Priedas. P. 99–109

Appraisal of options for the Less Favoured Area Support Scheme in Scotland post 2010

Gerald Schwarz,

Rob Burton, Iain Wright,

Alana Gilbert, Jim McLeod,

Margaret McKeen

The Macaulay Institute, Craigiebuckler, Aberdeen, AB15 8QH, U. K.
E-mail: g.schwarz@macaulay.ac.uk

Ron Wilson

University of Edinburgh, U. K.

Vicki Swales

Institute for European Environmental Policy

The Scottish Executive has proposed an interim Less Favoured Area Support Scheme (LFASS) until 2009 while in 2008 the Commission is expected to bring forward proposals on re-designation and payment of LFA support for implementation in 2010. The main objective of the study was to assess the potential implications of future options for LFASS for rural Scotland post 2010. The study evaluated the impact of four counterfactual LFASS scenarios on the rural economy, the social fabric of rural areas and the environment due to expected land management changes. Two principal directions for future LFA support can be derived from the findings of this research which combine different elements from the analysed LFASS scenarios. The first option is to retain a LFASS scheme but to review eligibility criteria and the distribution of funds between different regions and farm types giving greater weight to delivering socio-economic objectives. Secondly, LFASS funds could be included in Land Management Contracts, ring-fenced to LFA areas, and split between agri-environment measures and broader rural development measures.

Key words: Common Agricultural Policy, interdisciplinary research, Less Favoured Areas, Rural Development Measures, scenario analysis, Scotland, upland farming

INTRODUCTION

The Less Favoured Areas Support Scheme (LFASS) is the dominant scheme within the Scottish Rural Development Plan. A total of £61 million is distributed to around 13,000 beneficiaries, giving LFASS more recipients than any other rural support scheme in Scotland, after Single Farm Payments. For the period 2007–2013, Council Regulation 1698/2005 proposes to continue the support for Less Favoured Areas but under Axis 2: *Improving the environment and the countryside*. The Scottish Executive has proposed an interim scheme until 2009 using 2006 as a reference year for the payments in the period 2007–2009. In 2008 the Commission is expected to bring forward proposals (for implementation in 2010) on re-designation and payment of LFA support, and there is no guarantee that the current agreed wording on LFA in Regulation 1698/2005 will remain unchanged.

The mid-term evaluation of the Scottish Rural Development Plan (DTZ, 2003) has previously indicated the important role that LFASS played in supporting farm business viability and that in its absence only 4% of sheep farms, between 23–36% of mixed cattle and sheep farms and between 32–47% of specialist cattle farms would have incomes which were comparable (but low) to lowground cattle and sheep farms. However, problems concerning the way funds are distributed within the LFA farming sector have been identified and positive effects of LFA payments in the UK for rural communities have been questioned (Midmore et al., 2001, Ward and Thompson, 2002). LFA payments represent a mixture of socio-economic and environmental objectives, and, as AgraCEAS Consulting (2003) conclude, a more targeted approach than a single area payment to each of these objectives is required.

Against this background, the main objective of the study, commissioned by the Scottish Executive, was to assess the potential economic, social and environmental implications of future options for LFASS for rural Scotland post 2010. Based on an examination of the rationale for, and design of LFASS, the study defined four counterfactual scenarios which were analysed against the baseline scenario of the existing LFASS as operated in 2005. The four scenarios included; a modified version of the proposed interim LFASS, a redirection of LFASS funds to agri-environmental support, a redirection of LFASS funds to socio-economic support and a removal of LFASS funds completely. The study evaluated the impact of the different scenarios on the rural economy, the social fabric of rural areas and the environment due to expected land management changes. Finally, the study derived principal directions for future LFA support based on its findings. This paper outlines the integrated methodological framework used in the LFASS evaluation and presents a synthesis of the findings of the project (Schwarz et al., 2006).

METHODOLOGY

The complexity of this study combining economic, social and environmental assessments of LFASS implied that an integrated methodological framework had to be developed combining a range of different methods for the different parts of the LFASS evaluation. The methodological framework combines literature review, development of counterfactual LFASS scenarios, social surveys of LFASS recipients and upstream and downstream businesses, system-wide economic modelling and multiplier analysis as well as environmental assessments and ecological modelling. Moreover, a workshop was held with key stakeholders where emergent findings were presented and discussed and key points incorporated into the report. The framework is here only briefly outlined. A detailed description can be found at Schwarz et al. (2006).

Methodology used for the review of the rationale for LFA policy

The rationale for the LFASS was explored by conducting a literature review, including academic publications, EC publications and other relevant information. This not only covered the Scottish situation, but also included consideration of LFA policy in other Member States. This review was also informed by work commissioned by the EU on the evaluation of LFA support at the EU level and which was led by IEEP (Cooper et al., 2006). Consideration was given to the definition of 'disadvantage' and options for the designation of LFA in the Scottish context, within the framework of Council Regulation 1698/2005, including consideration of the use of land classification systems.

Scenario development

Scenario analysis is a common analytical tool used to explore the way in which a system may respond to external changes (e. g., Uebayashi, 2005). The purpose of creating scenarios in the current context was to examine the social, economic and environmental implications of changes in the support strategies of farmers in the Less Favoured Areas of Scotland. By choosing situations that may be viewed as radically different from the current one it is possible to gain some insight, by inference and interpolation, of the order of changes which are likely to take place for some of the intermediate positions. Therefore, it is important to bear in mind that the scenarios were proposed not as specific alternatives to the current scheme, but rather to provide insight with which to better formulate a future support strategy.

Economic modelling and analysis

In addition to the economic farm level analysis which quantified the disadvantages in performances of LFA farms in comparison to English lowground farms, a methodological framework for the multi-sectoral and economy-wide analysis of LFASS was developed. The methodology has been set up in two main steps. Firstly, based on Gelan and Schwarz (2006), a disaggregated Social Accounting Matrix (SAM) provided a detailed picture of the Scottish economy and its sectors in 2001 and, secondly, based on this dataset, a multiplier analysis of LFA agriculture and LFASS was conducted. The basis of such multi-sectoral analysis is a consistent and complete dataset on all transactions among sectors and institutions requiring, for every income, a corresponding expenditure (Johnson, 1994). It is an efficient framework to organise economic data, and it has been used widely to analyse

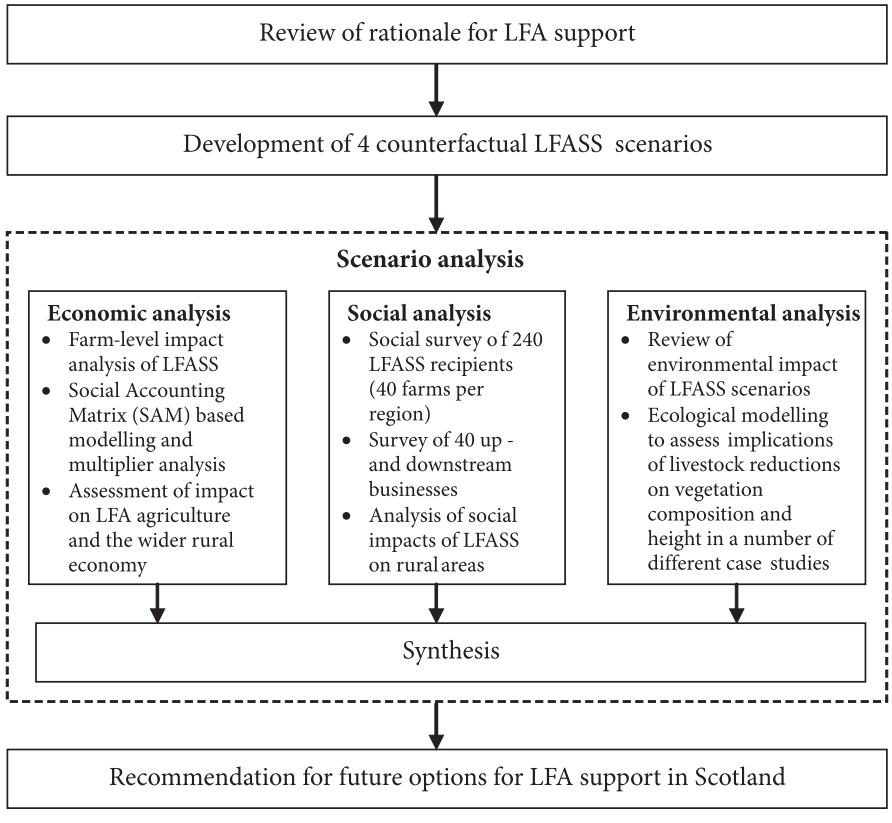

Figure. Integrated methodological framework for the LFASS analysis

multiplier effects resulting from external policy changes. A SAM can serve as both a data system and a conceptual framework in policy analysis (Sadoulet, de Janvry, 1995).

In the second step, production multipliers have been generated following the principles of so-called "non-classic" Input-Output (I-O) models. The results of such models measure through the production multipliers and linkages which, unlike the classic I-O model, provide separately both industry (activity) and commodity cumulative multipliers with their corresponding linkages (Thorbecke, 2000). Multiplier models provide information on the impact of changes in final demand in one sector on the income of other sectors and the whole economy. This study concentrated on the backward linkages of LFA farm types and commodities using the inverse matrix of the Leontief input coefficients and the forward linkages of LFA agriculture following Jones' modification of the Rasmussen method (Jones, 1976).

Social surveys of LFASS recipients and up- and downstream businesses

A selection of LFASS payment recipients was surveyed by telephone in the summer of 2006. A total of 240 LFASS recipients were selected for the interviews equally distributed across six NUTS 3 regions (Scottish Borders; Dumfries and Galloway; Lochaber, Skye & Lochalsh, Arran & Cumbrae and Argyll & Bute; Aberdeenshire and North East Moray; Caithness & Sutherland and Ross & Cromarty; and the Western Isles). This represented 1.89% of the total Scottish LFASS beneficiaries (12,724) in 2005. The regional approach of interviewing 40 recipients in each of the six specific NUTS 3 areas across Scotland gave a geographical spread (and hence represented the variety of farming systems and structures present as a whole) and thereby allowed comparisons and contrasts to be analysed subsequently. The chosen six regions included the five regions with the highest number of recipients, the five highest regional total payments and the five regions with the highest cattle and sheep populations.

As part of the farm survey, farmers were asked to list the businesses they obtained their goods and services from and, in order to examine impacts on the social fabric, whether they would be likely to reduce their business with the company if LFASS payments were removed. Based on the farmers' responses, a follow-up survey of up- and downstream businesses named by farmers was conducted to investigate how the reduction in income would affect these businesses and have flow-on effects on the local community. Businesses were selected to represent the regions as best as possible, and a total of 40 businesses were interviewed.

Methodology used for the environmental impact analysis

The environmental analysis reviewed the environmental impacts of the LFASS scenarios. The environmental assessment explored the contribution of the current LFASS to the environment, providing quantitative data wherever possible but also relying substantially on a qualitative assessment of the contribution made by LFASS. The first step was to understand, in general terms, the relationship between farming practice in LFAs and the environment in order to establish that farming has impacts on the environment. The next step was to review environmental trends in the LFA using the most recently available data and then to review agricultural trends in the LFA (making comparisons, where feasible, in both cases to non-LFA areas). The final step reviewed evidence for the impact of LFASS on agriculture and the environment, compared to other policy measures and drawing on the way in which the policy was applied (eligibility criteria, payment rates, conditions attached, etc). In this way, it was possible to draw conclusions as to the contribution of the current LFASS to the environment.

In addition, an ecological model, HillPlan, was used to provide information on the potential implications of livestock reductions on vegetation composition and height for different case studies. Briefly, HillPlan predicts the effect on a range of upland vegetation communities of grazing by different species of grazer, depending on the stocking density, seasonal pattern of grazing, etc. A detailed description of the HillPlan model is provided by Morris et al. (2005).

RESULTS AND DISCUSSION

Review of the rationale for LFASS

At the EU level, the emphasis in LFA policy has changed over the last decades towards environmental concerns. While compensation for production disadvantages, maintenance of agricultural land and issues of rural depopulation are still evident in Member State LFA objectives, the concept of the European model of multifunctional agriculture is becoming more reflected in policy debates. In Scotland, the main objective of LFASS refers to the key role of agricultural activities in sustaining rural economies and also maintaining valuable biodiversity and landscapes. Furthermore, the multifunctional role of LFA agriculture is also reflected in the new Rural Development Regulation which includes the provision of support for Less Favoured Areas under Axis 2: *Improving the environment and the countryside*.

This multifunctional role of LFA farming has become the main rationale for continuing support. The often cited example of public goods provision from LFAs agriculture is an interesting example of government intervention to correct market failure and inequalities. The basic argument is that LFA farming, relative to non-LFA farms, is more vulnerable to trade liberalization and suffers from, amongst other factors, lower productivity and fewer opportunities for diversification. Supporting farmers in these areas would therefore provide public goods, such as biodiversity and landscape appearance, which might not otherwise be available. However, such policy mechanisms designed to correct inequality are found to have distinct regional impacts in Scotland.

Counterfactual LFASS scenarios

The scenarios used in the analysis were:

- The baseline scenario (Scenario 1): the continuation of the LFASS as operated in 2005 with those eligibility conditions and payment rates.
- Scenario 2 was reflective of the new interim proposals for LFASS expected to become operational in 2007[1], but with a minimum eligibility area of 10 hectares, minimum pay-

[1] For more details on the LFASS interim scheme, see http://www.scotland.gov.uk/Publications/2006/04/03100240/0.

ments of £750 and a maximum payment per recipient of £30,000.

- Under Scenario 3, the strategic aims for upland support were focused primarily on achieving environmental goals in LFAs. It was assumed that all LFASS funds are transferred for use in achieving environmental goals via Tier 2 and Tier 3 of Land Management Contracts (LMCs) with an emphasis on the agri-environment measures (including access measures) within these tiers.
- In Scenario 4, LFA support was defined as a broader "socio-economic scheme" supporting the rural economy in LFAs. Scenario 4 assumed the shift of LFA support from axis 2 to axes 1 and 3, and that financial support will mainly be provided for projects in relation to diversification, marketing and processing.
- Scenario 5 assumed the removal of all LFASS funds without reallocation in any aspect of rural development.

The current intervention logic is one of making payments per hectare to farmers and crofters in LFAs in recognition of the agricultural and structural disadvantages existing in those areas. It is assumed that supporting agriculture in this way leads to desirable economic, social and environmental benefits that would otherwise not occur, or occur to a lesser degree. Scenarios 3 and 4 apply an alternative intervention logic. They assume that supporting agricultural production *per se* in the LFA will not necessarily deliver the economic, social and environmental outcomes desired by society. Rather, these scenarios assume that, in order to deliver such outcomes, support needs to be specifically designed and targeted at achieving such outcomes. For the purposes of this study, Scenario 3 focused on delivering environmental outcomes in the LFA, while Scenario 4 focused on delivering socio-economic outcomes. Scenarios 3 and 4 assumed that LFASS ends and the current £61 million budget would be added to the existing Tier 2 and Tier 3 LMC[2] budget, but ring-fenced to upland areas only.

LFASS scenario analysis

The review of the relative disadvantage of Scottish LFA farmers under the baseline scenario examined to what extent the existing LFASS compensates for the disadvantages experienced by LFA farms. Scottish LFA sheep farms had poorer outputs and, despite lower variable costs, were disadvantaged by around £10–11k. LFASS payments almost compensate for this. Beef farms, by contrast, had better gross outputs than might be expected and, although marginally more expensive in variable costs, they would appear to have better overall livestock gross margins than their English lowground comparators. As a result, LFASS payments tended to further improve the gross output of this farm type. LFA cattle and sheep farms would appear to be less constant in performance over the two years examined and have lower gross outputs and higher variable costs.

Despite the LFASS payments, livestock numbers in Scottish LFAs decreased over the period 1998–2005. Cattle numbers fell by nearly 5% and sheep numbers by 15%. In the same period, the number of agricultural employees declined in the LFA by 6% within which the greatest declines were seen in relation to full time employees. On all LFA farm types the net farm income fell to extremly low levels in the first few years of this decade. Income levels have increased again on all farm types over the past 3–4 years to levels just above that in 1998.

The wider economic importance of LFA agriculture was particularly manifested in the share of Scottish livestock output and in the close linkages with upstream and downstream industries. 58% of total beef output and 76% of total sheep output was provided by LFA farms showing the dependence of the Scottish livestock sector on cattle and sheep systems in LFAs. Moreover, strong economic linkages were identified with the animal feeds, manufacturing and other services sectors (backward linkages) and the meat processing sector (forward linkages). This picture is similar to findings in other country case studies, such as Hajnovičová and Lapišáková (2002) who also identified close linkages of farming with manufacturing and service sectors. These linkages are reflected in the different multipliers. Comparing the LFA farm type multipliers with other sectors, the study showed that, for example, the output multipliers are around 1.7 and in the middle range ranking from 9th to 11th of the 24 sectors. Upstream and downstream industries such as dairy products, meat processing and animal feeds have higher output multipliers. However, the inherent instability of the agricultural sectors and the difficulties involved in collecting reliable input-output data mean that the magnitude of these national multiplier effects may vary widely from year to year (Slee et al., 2001).

It can be concluded from the baseline analysis that the current LFASS payment provides socio-economic benefits to the farming community and indirectly to the wider economy, and has to some extent contributed to maintaining livestock numbers and stabilising farm income. On the other hand, however, the analysis shows that agricultural activities continue to decline in LFAs. Moreover, from an environmental point of view, water pollution, the loss and degradation of habitats, species declines and loss of landscape features are still important environmental issues in LFAs. The baseline assessment has also shown significant regional differences in agricultural structures and environmental trends in LFAs. Moreover, due to other socio-economic and policy developments, land use extensification continues in many LFAs and is expected to further accelerate. This suggests that the continuation of LFASS without any changes does not provide an optimal policy support to achieve the objectives of LFA policy, i. e. maintaining viable rural communities and businesses, while at the same time providing public goods, in the different Scottish regions.

Table 1 summarises the results of the economic, social and environmental analysis of the counterfactual LFASS scenarios.

The opposite extreme in terms of the range of scenarios is Scenario 5 simulating the removal of LFASS without any alternative support. Similarly to Scenario 1, although for different reasons, Scenario 5 does not provide a suitable policy approach for Scottish LFAs. Agricultural output in LFAs would experience a large decline (in particular the sheep sector) leading to reductions in output in a range of upstream and downstream industries due to the inter-sectoral linkages of LFA agriculture. Both the multiplier model and the business survey indicate that

[2] The Scottish Executive has implemented LMCs as the main delivery vehicle for agricultural and rural development support. For more information see http://www.scotland.gov.uk/Topics/Agriculture/Agricultural-Policy/17475/8769.

Table. **Summary of the results of the counterfactual LFASS scenarios**

Scenario	Economic impacts	Social impacts	Environmental impacts
Scenario 2	Important regional redistribution effects Higher economic incentives to maintain livestock in very extensive systems Negative spill-over effects to upstream and downstream businesses in more agricultural areas Incentive for diversification of farms in regions with lower LFASS payments	Areas with strong agricultural communities are likely to experience a reduction in the strength of the farming communities driven by reductions in labour force In regions where farmers rely on non-agricultural income the impact on community life would be light	Minor, localised positive and negative impacts from increasing minimum eligible area Some negative impacts in two regions from ceiling on payments if labour reduced but positive impacts from reduced grazing pressure and input use
Scenario 3	Loss of LFASS leads to lower gross output and farm income with negative spill-over effects for the local economy Impact of increased agri-environment support on farms depends on the design of the measures and payments Positive employment effects from agri-environment measures with positive spill-over effects for the local economy and provision of public goods	Regional differences in the environment and the nature of the schemes are likely to strongly influence farmers' response The maintaining of a strong culture based around commercial farming in main agricultural regions suggests that agri-environment measures could meet with more cultural resistance in these regions The need to make farming interesting and profitable should be considered in AEM	Positive impacts from increased uptake of environmental options in LMCs In cases where farmers do not enter agreements, impacts depend on how farmers adjust businesses, e. g. lowering costs by reducing labour could mean less capacity to manage landscape features. Negative impacts for biodiversity and landscapes from further extensification, in already extensively farmed areas
Scenario 4	Negative impact of LFASS removal on agricultural output and farm income Positive impact from socio-economic measures to enhance competitiveness and income diversification Socio-economic measures create employment, provide information on new markets and increase primary production Regional targeting and integration with other support improves efficiency	Farmers' responses suggest widespread extensification of land use in areas with relatively high livestock densities Strong regional differences in up-take of diversification options While some areas have scope for further diversification outside agriculture, there is little scope for further diversification in areas where farmers already draw 84% of their income from non-farming	Both positive and negative impacts arising where farmers take up rural development funding and diversify. Similar impacts to Scenario 5 where farmers lose LFASS funds and do not access rural development funds Weakening of link between support payments and land management
Scenario 5	Significant reductions of gross output of LFA farm types, especially sheep farms Reductions in output in a range of other economic sectors Substitution effects could lead to positive spill-over effects for the wider economy Large regional variations of the implications of LFASS removal, but further regional economic analysis required to derive detailed conclusions	There would be some losses in all regions. Business survey suggests uneven distribution of impact of LFASS removal, e.g. negative employment effects depend on opportunities for businesses to use options in non-farming sectors Business survey indicates that animal feeds, machinery and veterinary services are amongst the most affected sectors	Negative impacts where farmers retire, land amalgamated and managed more intensively Positive impacts from woodland expansion, lower grazing pressure and use of inputs in intensively farmed areas Negative impacts from loss of labour in both intensively and extensively farmed areas and problems of scrub encroachment in extensive areas

animal feeds, fertilisers and veterinary services are amongst the most affected sectors. Negative environmental impacts could result from reductions in labour and less capacity for land management and from undergrazing and encroachment of unwanted vegetation in already extensively farmed areas. Potential environmental benefits in some intensively used areas would not outweigh the described economic and environmental cost of such a scenario. Overall, the removal of LFASS without any alternative support for land management in LFAs would conflict with the objectives and priorities under Axis 2 of the Rural Development Regulation (e. g., to maintain the countryside through continued use agricultural land and the preservation of high nature value farming).

Instead, the findings of the study advocate that future LFA support should combine different elements from Scenarios 2, 3 and 4 to maximise the overall benefit from public support for land management and rural communities. Scenario 2 could lead to a number of different, both positive and negative, socio-economic and environmental implications. Most importantly, however, the research showed that introduction of a minimum eligibility area of 10 hectares, increased minimum payments of £750 and a maximum payment of £30,000 result in positive redistribution effects for remote areas with extensive land use systems of high environmental value. For example, total payment receipts in the Western Isles would increase by nearly 24%. Hence, such revisions to LFASS should be such that they provide increased incentives to maintain livestock numbers in remote areas and address potential problems in relation to under-grazing and habitat deterioration through continued and accelerated land use extensification. Such a LFASS change would follow the emphasis of support under axis 2 of the new RDR on natural handicaps and high nature value farming. It would also be in line with the main aim of the existing LFASS to ensure that agricultural activities continue in naturally disadvantaged areas, more remote and peripheral regions, where agriculture has a key role to play in sustaining fragile rural economies and maintaining valuable biodiversity and landscapes – yet where agriculture would not prove feasible in the absence of such support. On the other hand, the redistribution of funds potentially also leads to a range of different implications in regions with lower LFASS payments which could be addressed through different agri-environment and socio-economic policy measures.

A stronger focus on agri-environment support (Scenario 3) follows the increased policy emphasis on public good provision. The shift of former LFASS funds to targeted agri-environment support in LFAs increases the scope for financial incentives to persuade farmers to take up such measures, in particular if other main support payments such as the SFP further decrease over time. An increased uptake of environmental options in both Tier 2 and Tier 3 LMC agreements would provide environmental benefits across a range of attributes. Principally, such support could target, on the one hand, extensification in intensively used agricultural areas and, on the other hand, maintaining land management levels in extensive systems to avoid under-grazing and land abandonment. While there is some evidence that agri-environment support also leads to socio-economic benefits such as positive employment effects, a focus solely on agri-environment measures would largely ignore the importance of social and cultural capital in farming communities and the crucial role of economically viable land-based businesses (Burton et al., 2005).

Targeted socio-economic support for LFA farms, in addition to income support payments for livestock farmers, can be provided through diversification, marketing and processing measures aiming to improve the business environment of land-based enterprises in LFAs (Scenario 4). The described rural development measures could help to restructure farms in LFAs, improving the competitiveness and income diversification of farm households. However, it is crucial that funding for marketing and processing is provided for on-farm activities and thus remains directly available for land-based businesses. If support is partly shifted to the processing industry, other than through collaborative projects with farmers, policy support moves away from the land use sectors, which would be detrimental for land management in LFAs and would also conflict with European and national policy objectives. While from an environmental perspective, such RD measures might imply a weakening of the direct link between support payments and land management, they provide important socio-economic elements in an integrated support framework through LMCs which links elements from Scenarios 2, 3 and 4.

CONCLUSION

Overall, one of the key findings of the study is that economic, social and environmental implications cannot be considered in isolation and the future LFA policy needs to combine targeted environmental and socio-economic measures. This confirms findings of an earlier evaluation of the Hill Farm Allowance in England (AgraCEAS Consulting, 2003) that a more targeted approach to both socio-economic and environmental objectives is required. The socio-economic implications of LFA support are strongly linked with the expected environmental benefits from land management and, vice versa, environmental benefits from land management are strongly dependent on profitable businesses of viable household incomes of land managers. While it seems obvious that environmental benefits of land management will be much more difficult to achieve without the existence of local communities and farmers, the challenge is to design LFA support which increases the environmental benefits, but at the same time supports the livelihood of the people who are supposed to carry out the land management tasks both now and into the future when there are likely to be increasingly competitive pressures on tradable LFA products.

The different scenarios show different targeted mechanisms to improve the economic, social and environmental benefits from LFA support. However, the study also provides evidence for large regional variations in the implications of LFASS changes, which originate from different natural and climatic conditions in LFAs as well as from economic and social differences across Scottish LFAs. Hence, the findings of this study suggest that one ("national") scheme with the same mechanisms across the whole Scottish LFAs is unable to provide targeted support taking into account specific local / regional circumstances and issues. This is in line with the recommendation of the recent EU-wide evaluation of the LFA measures pointing out the need to recognise more precisely regional differences in land management requirements (Cooper et al., 2006). On the other hand, regionalisation (not necessarily geographical) would increase the administrative burden. However, the introduction of LMCs provides an opportunity for a more integrated approach to land management and could potentially provide also an appropriate framework for localised management contracts at landscape level. While there is some evidence from other countries that a higher initial investment in developing more localised policies and administrative structures can provide higher benefits in the longer term, these aspects require further consideration before more detailed conclusions can be derived.

The findings of the study suggest two principal directions for future LFA support, which combine different elements from the analysed LFASS scenarios. The first option is to retain a LFASS scheme but to review eligibility criteria and the distribution of funds between different regions and farm types, giving greater weight to delivering socio-economic objectives. Secondly, instead of retaining a separate scheme, LFASS funds could be included in LMCs and split between agri-environment measures and broader rural development measures. The funding could be ring-fenced to LFA areas to ensure that the former LFASS funds remain available for these areas.

ACKNOWLEDGEMENTS

The research was financed by the Scottish Executive's Environment and Rural Affairs Department, and the authors would like to thank the Scottish Executive for providing all required LFA farm data and information and their continuous support throughout the project. We are very grateful to farmers and businesses who participated in the surveys and for the constructive comments received at the stakeholder workshop.

References

1. AgraCEAS Consulting // Ex post evaluation of measures under Regulation (EC) No 950/97 on improving the efficiency of agricultural structures. Report commissioned by the EU-Commission, 2003.
2. Burton R., Schwarz G., Fischer H. Main-d'oeuvre agricole et Plan de développment rural en Écosse // Économie Rurale. 2005. P. 289–290, 106–127.
3. Cooper T., Baldock D., Rayment M. et al. An evaluation of the LFA measure in the 25 Member States of

the EU. A report prepared by the Institute for European Environmental Policy for DG Agriculture, 2006.
4. DTZ // Scottish Rural Development Plan: Mid-term Evaluation. Report for SEERAD. 2003.
5. European Commission // COUNCIL REGULATION (EC) No. 1698/2005, September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD). 2005. http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_277/l_27720051021en00010040.pdf
6. Gelan A., Schwarz G. A Policy Impact Evaluation Model for Scotland: Decoupling Single Farm Payments. Aberdeen Discussion Paper Series, 2006. http://www.macaulay.ac.uk/ruralsustainability/Gelan_Schwarz_2006.pdf
7. Hajnovičová V., Lapišáková J. SAM Multipliers Analysis: The Slovak Case. XIV // Paper presented at the International Conference on Input-Output Techniques October 10–15, 2002. Monteal, Canada, 2002.
8. http://io2002conference.uqam.ca/abstracts_papers/new20sept/Hajnovicova.doc
9. Johnson T. The Dimensions of Regional Economic Development Theory // Review of Regional Studies. 1994. Vol. 24. P. 119–126.
10. Jones L. P. Measurement of Hirschmanian Linkages. Quarterly Journal of Economics. 1976. Vol. 90. P. 323–333.
11. Midmore P., Sherwood A-M., Roughley G. Policy Reform and the Sustainability of Farming in the Uplands of the United Kingdom: Conflicts between Environment and Social Support // Journal of Environmental Policy and Planning. 2001.Vol. 3. P. 43–63.
12. Morris J., Audsley E., Wright I. A. et al. Agricultural Futures and Implications for the Environment. Main Report, Technical Report and Supporting Appendices. Defra Research Project IS0209. Bedford: Cranfield University, 2005. Available on hppt://www.silsoe.cranfied.ac.uk
13. Sadoulet E., De Janvry A. Quantitative Development Policy Analysis. Baltimore: The John Hopkins University Press, 1995.
14. Schwarz G., Wilson R. M., Swales V. et al. Less Favoured Area Support Scheme in Scotland: Review of the evidence and appraisal of options for the scheme post 2010. Report for the Scottish Executive, 207 p. Macaulay Institute, University of Edinburgh and IEEP, December 2006. http://www.scotland.gov.uk/Publications/2007/03/21143353/0
15. Slee B., Roberts D., Barnes A. et al. Agriculture's contribution to Scottish society, economy and environment: a literature review. SERAD and CRU. Published by University of Aberdeen, Department of Agriculture and Forestry, 2001.
16. Thorbecke E. The use of Social Accounting Matrices in modeling, Paper Prepared for the 26th General Conference of The International Association for Research in Income and Wealth Cracow, Poland, 27 August–2 September 2000. P. 1–22.
17. Uebayashi A. Structural change of World Beef Trade and its impact: A scenario analysis by using AGLINK model // Journal of Agricultural Policy Research. 2005. No. 9. P. 53–84.
18. Ward N., Thompson N. The Implementation of the EU Rural Development Regulation in Scotland. Research Report to the World-Wide Fund for Nature. Scotland, 2002.

Gerald Schwarz, Rob Burton, Iain Wright, Alana Gilbert, Jim McLeod, Margaret McKeen, Ron Wilson, Vicki Swales

PARAMA ŪKIAMS MAŽIAU PALANKIOSE ŪKININKAUTI ŠKOTIJOS VIETOVĖSE: PASIRINKIMO GALIMYBĖS IR PROGNOZUOJAMA ĮTAKA PO 2010 M.

Santrauka

Škotijos vyriausybė pasiūlė laikiną mažiau palankių ūkininkauti vietovių (MPŪV) rėmimo schemą iki 2009 m., nes laukiama, kad 2008 m. Komisija pateiks siūlymą dėl MPŪV paramos perskirstymo ir išmokų mokėjimo 2010 m. Pagrindinis tyrimo tikslas – įvertinti MPŪV rėmimo schemos pasirinkimo Škotijos kaime po 2010 m. reikšmę. Tyrimo metu buvo įvertintas 4 skirtingų MPŪV rėmimo schemos scenarijų poveikis (atsirandantis dėl žemės valdymo pokyčių) kaimo ekonomikai, kaimo vietovių socialinei struktūrai ir aplinkai. Gauti rezultatai parodė, kad ateityje galimos dvi pagrindinės MPŪV rėmimo kryptys, kurios suderina analizuojamų MPŪV rėmimo schemų scenarijų skirtingus elementus. Pagal pirmąją kryptį būtų taikoma MPŪV rėmimo schema, atnaujinant tinkamumo kriterijus ir lėšų paskirstymą tarp skirtingų regionų ir ūkių tipų, teikiant didesnę reikšmę socialinių ekonominių tikslų įgyvendinimui. Pagal antrąją kryptį MPŪV rėmimo schemos lėšos galėtų būti įtrauktos į žemės valdymo sutartis, nusprendžiant lėšų paskirtį MPŪV, bei padalytos tarp agroaplinkosauginių priemonių ir bendrų kaimo plėtros priemonių.

Raktažodžiai: bendroji žemės ūkio politika, kaimo plėtros priemonės, mažiau palankios ūkininkauti vietovės**,** scenarijų analizė, Škotija, tarpdalykinis mokslinis tyrimas, ūkininkavimas kalnuotose vietovėse

Геральд Шварц, Роб Бертон, Йэн Райт, Алана Гилберт, Джим Маклеод, Маргарет Маккин, Рон Вилсон, Викки Свейлс

ПОМОЩЬ ХОЗЯЙСТВАМ В МЕНЕЕ БЛАГОПРИЯТНЫХ МЕСТНОСТЯХ ШОТЛАНДИИ: ВОЗМОЖНОСТИ ВЫБОРА И ПРОГНОЗИРУЕМОЕ ВЛИЯНИЕ ПОСЛЕ 2010 г.

Резюме

Правительство Шотландии предложило временную (до 2009 г.) схему стимулирования менее благоприятных для хозяйствования местностей (МБМХ), поскольку ожидается, что в 2008 г. Комиссией будут подготовлено предложение по перераспределению помощи МБМХ и выделению выплат в 2010 г. Основная цель исследования – оценить значение выбора схемы стимулирования МБМХ в сёлах Шотландии после 2010 г. Рассмотрены четыре различных сценария схемы стимулирования МБМХ и оценивается их предполагаемое влияние на экономику села, социальную структуру сельских местностей и окружающую среду в зависимости от различных видов управления землей. Итоги исследования показали, что в будущем возможны два основных направления стимулирования МБМХ, в которых сочетаются различные элементы анализируемых сценариев схем стимулирования МБМХ. Первое

направление предполагает обновление критериев пригодности и распределения средств между различными регионами и типами хозяйств для реализации социально-экономических целей. Второе направление предусматривает, что при составлении договоров об управлении землей средства, предназначенные для стимулирования МБМХ, распределяются между агромероприятиями по охране окружающей среды и общими мероприятиями по развитию села.

Ключевые слова: анализ сценариев, междисциплинарное научное исследование, менее благоприятные для хозяйствования местности, мероприятия по развитию села, общая сельскохозяйственная политика, хозяйствование в гористых местностях, Шотландия