Developing a High Nature Value farming area indicator

1. Introduction

1.1 Background

Agriculture manages approximately 50% of all land in Europe. Regional farming traditions and extensive management practices have resulted in rich cultural landscapes with associated high biodiversity, commonly referred to as High Nature Value farming areas. Due to intensification of European agriculture, however, their extent has decreased and considerable biodiversity loss has occurred. The importance of HNV farming areas is recognised in several EU documents, such as the Rural Development Regulation 1257/1999 (as an objective for agri-environment schemes), the EC Biodiversity Action Plan for Agriculture, and Commission Communications on agri-environmental indicators (COM(2000) 20 and COM(2001) 144).

It is difficult to give an accurate and comprehensive European picture of the current situation and extent of remaining HNV farming areas. In spite of previous work during the 1990s, there is no consistent and commonly accepted indicator that combines relevant data on farming practice and associated biodiversity. Many relevant data sources are insufficiently detailed or have regional gaps. However, maintaining and developing HNV farming areas is crucial for protecting biodiversity on farmland in Europe. Policy measures, such as agri-environment schemes, should adequately target the remaining HNV farming areas.

An indicator for High Nature Value farming areas is urgently required to:
- determine which farming systems in Europe are most important for agricultural biodiversity,
- monitor their geographical distribution,
- assess the targeting of agri-environmental policy measures, and
- gain insight into the impact of CAP regimes on biodiversity rich farming systems.

As a contribution to agri-environmental indicator development in the framework of a Memorandum of Understanding between DG Agri, DG Env, DG Eurostat, DG JRC and the EEA, and in view of the expected IRENA project on agri-environmental indicators, the EEA has therefore decided to include the development of a HNV farming area indicator in its 2002 work programme.
1.2. Previous work

On 21 and 22 February, an expert meeting was held at EEA to discuss options for the development of a HNV farming area indicator and discuss data availability. In general, there was a preference for an approach, in which farming characteristics (input/product/management parameters) would be combined with biogeographical data (quality parameters). It appeared very difficult to find HNV farming parameters that are suitable across Europe, since farming practices show big regional variation. Instead the most promising approach appeared to be to build on a simple classification of regional farming systems. In spite of the difficulty of developing a detailed concept during just one meeting, some preliminary parameters, that would be relevant in the development of a HNV farming area indicator, were proposed (see table 1).

Table 1. Preliminary HNV parameters.

<table>
<thead>
<tr>
<th>Farming characteristics</th>
<th>Nature quality</th>
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<tr>
<td>Input use (fertiliser/pesticide/fodder import)</td>
<td>Landscape diversity parameters</td>
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<tr>
<td>Management practices (crop rotation)</td>
<td>Share of semi-natural habitats</td>
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<tr>
<td>Livestock density</td>
<td>Presence of key species</td>
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<tr>
<td>Biomass production/ ha of Utilized Agricultural Area (UAA)</td>
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Data availability was not discussed in detail, given the general character of the preliminary parameters. Among other options, remote sensing techniques, as applied in Corine Land Cover, were considered helpful, but at present their resolution and discerning power are insufficient to delineate for example semi-natural grasslands. Sample based land use inventories, such as the LUCAS project, may provide useful additional data, but relevant agro-environmental aspects are still insufficiently covered in current surveys. For modelling and interpreting land use data as well as agricultural production trends, several tools are available (MARS, ELPEN, CAPRI).

The recommendations included further research into the link between farm management and farmland biodiversity and pilot studies to test different approaches for the development of a HNV farming area indicator. A second expert meeting on the basis of a further developed HNV concept was also recommended. A summary record of the results of the expert meeting is attached in annex 1.

2. Objective of the contract

The objective of the contract is to develop and test a HNV farming area indicator at EU level, on the basis of an in-depth analysis of presently available data. Secondly, the contractor should evaluate possibilities and availability of data for expanding the HNV farming area indicator, and related data sets, to all EEA member countries. The indicator to be developed should allow for a precise geographical definition of HNV farming areas and should be validated in three pilot regions. It needs to meet the general criteria as given in the Commission Communication on agri-environmental indicators (COM (2001) 144 final):

1. policy-relevance - address key environmental issues;
2. responsiveness – change sufficiently quickly in response to action;
3. analytical soundness – be based on sound science;
4. measurability – be feasible in terms of current or planned data availability;
5. *ease of interpretation* – communicate essential information in a way that is unambiguous and easy to understand;
6. *cost effective* – costs in proportion to the value of information derived.

In addition, the work under the contract should build on the outcome of the expert meeting taking into account the set of preliminary parameters. Close co-ordination of work under the contract with other work at the EEA, such as the expected project on biodiversity implementation indicators, and the European Topic Centres for Terrestrial Environment as well as Nature Protection and Biodiversity needs to be ensured at all times. Consultation and co-operation with other partners in the Memorandum of Understanding between DG Agri, DG Env, DG Eurostat, DG JRC and the EEA is also essential.

### 3. Tasks

The tasks to be performed are:

1. *Survey of datasets* – Screening of available data (including those of administrative nature) at EU level, as well as in all EEA member countries, for their suitability as basis for the development of a HNV farming area indicator.
2. *Conceptual development of HNV farming area indicator* – Selection of relevant parameters and elaboration of a quantitative aggregation protocol, that will enable a geographical definition of HNV farming areas in the EU. This task is expected to build on a simple classification of regional farming systems as outlined in section 1.2. Tasks 1 and 2 have to be performed in an iterative process.
3. *Elaboration of a map of HNV farming areas in the EU* – on the basis of presently available data and work under tasks 1 and 2 a map of HNV farming areas at a scale of 1:1,000,000 has to be elaborated.
4. *Analysis of possibilities for extending the HNV farming area indicator to all EEA member countries plus Switzerland* – investigation of available data sets as well as possible (future) tools for developing a HNV farming area indicator at nearly pan-European level.
5. *Validation of results and approach through consultation with regional experts with relevant expertise in the fields of agriculture as well farming related landscapes and biodiversity* – The indicator and resulting map as defined through tasks 1 to 4 need to be validated through a technical consultation of experts with relevant background knowledge in three pilot regions in Europe (representative for agricultural systems in Western Europe/Scandinavia; Central/Eastern Europe and Southern Europe, respectively.)
6. *Evaluation of project results and recommendations for future work* – The implications of the project results for the further development of a HNV farming area indicator must be analysed. Minor adaptations need to be incorporated into the indicator directly. Major consequences that require a follow-up must be clearly signalled.

Completion of the work is estimated to require between 250 – 300 working days. Approximately 40% of that amount is likely to be spent on tasks 1 and 2. However, these figures should be taken as guidance only.
4. Geographic coverage

The HNV farming area indicator must in principle be applicable in all EEA member countries: All EU Member States (EU15), plus Norway, Iceland, Liechtenstein, Bulgaria, Czech Republic, Slovak Republic, Estonia, Latvia, Lithuania, Poland, Hungary, Romania, Slovenia, Cyprus, Malta and Turkey. Options for extending the work to Switzerland should be investigated.

5. Time schedule and organisation of work

The work should begin within three weeks of signing the contract and be executed in discussion with the respective EEA Project Manager over a period of twelve months.

The results of tasks 1 and 2 should be presented to the EEA Project Manager for approval before starting tasks 3 and 4.

There are no special requirements regarding the location of work. It is envisaged that three meetings with the EEA Project Manager will be necessary:
   a) at project start-up;
   b) for approval of results of tasks 1) and 2);
   c) to discuss final draft.

Under the coordination of the EEA project manager, co-operation with the EEA Topic Centres on Terrestrial Environment as well as Nature Protection and Biodiversity should be sought.

6. Reports and documents to be submitted

The consultant should submit the following reports:
   • An interim report on the results of tasks 1) and 2) including the proposed final selection of pilot areas, approximately five months into the project;
   • A map of HNV farming areas in the EU at the scale 1 : 1,000,000;
   • A final draft report four weeks before the end of the project;
   • All datasets related to the elaboration of the proposed HNV farming area indicator at pan-European level and to the map of HNV farming areas in the EU.
   • A final report at the end of the project.

The final report and the map of HNV farming areas in the EU must be suitable for publication as a technical report of the EEA.

7. Payment

   • 30 % within 60 days of signing of the contract;
   • 40 % within 60 days of acceptance of the interim report;
   • the balance within 60 days of acceptance of the final report.
8. **Contract**

In drawing up the bid, the tenderer should bear in mind the provisions of the standard contract attached to this invitation to tender (Annex I).

This contract can be extended according to the original conditions. Such an extension has to be applied for at least one month before expiry of the original contract.

9. **The tender must include:**

- all the information and documents required by the authorising department for the appraisal of tender, on the basis of the award criteria in Section 12;
- the price in accordance with Section 10.

10. **Prices**

- Prices must be fixed amounts in EURO. Apart from a total offer for the services, rates per day should be given.
- Travel and subsistence expenses likely to be incurred in the course of execution of the contract are not covered by daily rates. Estimated travel and subsistence expenses must thus be indicated separately. (Travel and subsistence expenses will not be taken into account when deciding whom to award the contract to.)
- Travel and subsistence expenses shall be reimbursed in accordance with the rules and conditions relating to the payment of missions expenses in force at the Agency.

The estimate of costs should be based on Annexes I/III/IV of these specifications and include any travel required to meet representatives of the Agency. In any event it should include the maximum amount of travel and subsistence expenses payable for the services provided.

11. Tenders from **consortiums** of firms or groups of service providers, contractors or suppliers must specify the role, qualifications and experience of each member or group.

12. **Contract awarding criteria**

Contract will be awarded to the tenderer whose offer is the most advantageous taking into account:

- The consultants knowledge of the relationship between agricultural land use and biodiversity;
- the consultants’ understanding of European farming systems as well as the impact of different farm management methods on the diversity of landscape structures and agricultural biodiversity;
- the consultants’ knowledge of available agri-environmental data sources;
- the consultants’ experience in analysing agri-environmental statistics and land use data, preferably at the European level;
- a proven track record in timely delivery of high-quality work in similar areas;
- price and quality.
ANNEXES

Annex I: HNV Proceedings (summary record)
Annex I: Model for standard study contract
Annex II: Reports and documents
Annex III: General terms and conditions applicable to contracts awarded by the EEA
Annex IV: Reimbursement of travel expenses
Annex V: VAT and excise duty exemption form