

TECHNICAL SPECIFICATION

10-07-2003

Development of selected agri-environmental indicator fact sheets and support for assessment and reporting under the IRENA operation on the integration of environmental concerns into EU agriculture policy

Invitation to tender: EEA/EAS/03/002

Project manager: Jan-Erik Petersen

1.1 Introduction

1.1.1 Background

During each of its meetings in Cardiff (June 1998), Vienna (December 1998) and Helsinki (December 1999), the European Council required the Commission to report on the integration of environmental concerns into Community sectoral policies. As a contribution to meeting this requirement for the agricultural sector, it is necessary to develop indicators to monitor such integration, i.e. agri-environmental indicators (AEI). A set of indicators has been identified in the Communication from the Commission to the Council and European Parliament, COM (2000) 20, and this set, and the statistics and other information needed to realise the indicators, was the subject of a further Commission Communication COM (2001) 144.

In response to COM (2000) 20 and COM (2001) 144 a Memorandum of Understanding between DG Agri, DG Env, DG Eurostat, DG JRC and the EEA was signed. The purpose of the Memorandum of Understanding is to specify the basis for cooperation amongst the partners in achieving the common aim of producing and assessing agri-environmental indicators and, in particular:

- to improve, develop and compile a set of agri-environmental indicators at least corresponding to indicators identified in Commission Communication COM(2001)144;
- to develop data sets required for computing such a set of indicators at the appropriate geographical levels in order to undertake regional analyses;
- to produce an assessment of the integration of environmental concerns into EU agricultural policy.

The outcome of the Memorandum of Understanding (MoU) is the IRENA Operation (Indicator Reporting on the Integration of Environmental Concerns into Agricultural policy). The IRENA Operation is managed and coordinated by the EEA, building on contributions from all five partners of the MoU. It will result in 1) indicator fact sheets with all technical details for each indicator, 2) an indicator report, providing an

environmental assessment of EU15 agriculture based on 35 indicators listed below (Table 1) and grouped by environmental theme, and 3) a policy assessment report linking the indicator output and other material to an overall framework for analysing the integration of environmental concerns into agriculture policy.

The Commission Communications on agri-environmental indicators (COM (2000) 20 and COM (2001) 144) list 35 indicators to be developed and validated (Table 1).

Table 1 List of agri-environmental indicators COM (2001) 144

DPSIR	Themes	No.	EU Indicator
Responses	Public policy	1	Area under agri-environment support
		2	Regional levels of good farming practice
		3	Regional levels of environmental targets
		4	Area under nature protection
	Market signals	5.1	Organic producer price premiums
		5.2	Agricultural income of organic farmers
	Technology skills	6	Holders' training levels
Attitudes	7	Area under organic farming	
Driving forces	Input use	8	Fertiliser consumption
		9	Consumption of pesticides
		10	Water use (intensity)
		11	Energy use
	Land use	12	Topological change
		13	Cropping/livestock patterns
	Management	14	Management practices
	Trends	15	Intensification/extensification
16		Specialisation/diversification	
17		Marginalisation	
Pressures	Pollution	18	Soil surface nutrient balance
		19	Methane (CH ₄) emissions
		20	Pesticide soil contamination
		21	Water contamination
	Resource depletion	22	Ground water abstraction
		23	Soil erosion
		24	Land cover change
		25	Genetic diversity

DPSIR	Themes	No.	EU Indicator
	Benefits	26	High nature value (farming) areas
		27	Production of renewable energy (by source)
State	Biodiversity	28	Species richness
	Natural resources	29	Soil quality
		30	Nitrates/pesticides in water
		31	Ground water levels
Landscape	32	Landscape state	
Impact	Habitats and biodiversity	33	Impact on habitats and biodiversity
	Natural resources	34.1	Share of agriculture in GHG emissions
		34.2	Share of agriculture in nitrate contamination
		34.3	Share of agriculture in water use
Landscape diversity	35	Impact on landscape diversity	

1.1.2 Previous work

Work carried out so far has focussed on developing methodology fact sheets for all the 35 COM (2001) 144 indicators. The methodology sheets contain information concerning the description and definition of the indicator; the data sources available for indicator development; a conceptual description of the indicator; limits to the development of the indicator; the tools available for computing the indicator; the proposal for further indicator development; and reference material or websites at the Community and Member States level.

1.2 Call for Tender

The Call for Tender is divided into two lots:

LOT 1: Development of selected agri-environmental indicator fact sheets and contributions to the IRENA indicator report.

LOT 2: Support for the IRENA indicator-based policy assessment report of the integration of environmental concerns into EU agriculture policy.

If tenderers wish to apply for both LOT1 and LOT2, two separate tenders should be submitted.

1.2.1 LOT 1: Development of selected agri-environmental indicator fact sheets and contributions to the IRENA indicator report

The first objective of LOT 1 is to provide support for indicator development and fact sheet writing for a selected number of indicators: No. 5 Organic producer price premiums and agricultural income of organic farmers, No.11 Energy use, No.13 Cropping/livestock patterns, No.15 Intensification/extensification, No.16 Specialisation/diversification, No. 17 Marginalisation and No. 27 Production of renewable energy (by source). The specifications are detailed in the methodology indicator fact sheets (Annex A).

A key market response to different types of farming such as organic farming is the price premium (Indicator No. 5.1) and the income of organic farmers (Indicator No. 5.2). Available data to elaborate these indicators need to be reviewed and the indicator fact sheets for IRENA reporting need to be developed.

Indicators No. 11 and No. 27 are indicators of agricultural energy use and the production of renewable energy on agricultural holdings. Only limited data sets are currently available to elaborate these indicators. The significance of these indicators for the environmental impact of agriculture, as well as its contribution to renewable energy production, needs to be evaluated.

Indicators No. 13, No 15, No. 16, and No.17 are agricultural land use or economic trend indicators. To develop and interpret these agri-environmental indicators a typology of agricultural holdings needs to be established that is based on key environmental characteristics and the management of farms. An example for a typology that is potentially useful for the purposes of the IRENA operation is a model developed by the European Livestock policy evaluation network (ELPEN). This focuses on grazing livestock systems based on land use, the intensity of farming and the size of production (<http://www.macaulay.ac.uk/elpen/index.htm>). Related software is available from the network partners. The ELPEN typology or a similar approach needs to be developed to provide a farm typology suitable for the purposes of the IRENA operation, and including livestock, arable, horticulture and permanent crop farming systems.

The second objective of LOT 1 is to support the writing of the IRENA indicator report. The IRENA indicator report provides an environmental assessment of EU15 agriculture based on the 35 agri-environment indicator fact sheets. The environmental assessment will be carried out using the DPSIR framework to establish and understand the causal links between indicators by theme. In the case of LOT 1 the two relevant environmental assessment themes are:

- energy use in EU15 agriculture (Nos. 11 and 27); and,
- farming system changes in EU15 agriculture (Nos. 13, 15,16 and 17).

1.2.2 LOT 2 Support for the IRENA indicator-based policy assessment report of the integration of environmental concerns into EU agriculture policy

The objective for work under LOT 2 is to provide support to the IRENA operation in the analytical assessment of agri-environmental policy integration in the EU. This relates to help in the development and application of an analytical framework as well as the writing of the policy assessment report.

Assessment and reporting on the integration of environmental concerns into EU agriculture policy is a major task under the IRENA operation. The following paragraph summarises the text from the IRENA grant agreement on this objective.

Policy assessment indicators will be used to arrive at a systematic and integrated assessment of progress made in the integration of environmental concerns into agricultural policy, as mandated by the Cardiff process. Existing concepts and frameworks, such as the DPSIR assessment scheme, will guarantee a balance between a synthetic overview and the answers to current policy questions. Analysis of environmental policy integration will include the following aspects:

Institutional integration

Market integration

Management integration

Monitoring/reporting progress

1.3 Tasks

The tenderer will provide in his offer a proposal for a detailed work plan for each identified task.

1.3.1 Tasks for LOT 1: Development of selected agri-environmental indicator fact sheets and contributions to the IRENA indicator report

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 the Member States, for their suitability as basis for the development of the specified IRENA indicators.

2. *Data compilation* – A full database of information supporting the indicator work is required at EU and Member State level for the indicators specified. Digital data supplied should be ascii or excel files, which are compatible for importing into GISCO NUTS 2 and NUTS 3 coverages and into the EEA Data warehouse structure.
3. *Development of a typology of agricultural holdings based on key environmental characteristics and management of farms in different agricultural sectors* – Selection of relevant parameters and elaboration of a quantitative aggregation protocol that will enable the discrimination of agricultural holding categories based on an EU wide typology with an agri-environmental focus.
4. *Development of methodology / data fact sheets and indicator fact sheets* – these fact sheets represent the reporting and communication mechanism for indicator development and analysis. Model fact sheets have been developed for the IRENA operation, in view of developing a web site for reporting and updating agri-environmental indicators. The indicator fact sheets need to be of sufficient quality to be published on the EEA website. Model fact sheets are included in Annexes B and C.
5. *Validation of approach and results*– the validation of the approach and results will initially be carried out by the IRENA staff. If appropriate EU wide results and illustrative case studies will also be presented to the IRENA steering group meeting and / or an IRENA expert meeting.
6. *Support for the writing of the IRENA indicator report* – this report will provide an environmental assessment of EU15 agriculture based on 35 indicators grouped by environmental theme. The successful tenderer will write two environmental assessments that will contribute to the IRENA indicator report: energy use in EU15 agriculture (Nos. 11 and 27) and farming system changes in EU15 agriculture (Nos. 13, 15,16 and 17). The first task (6a) is to develop an outline that will be discussed with EEA staff and the second task (6b) is to produce the final document.

The indicator reporting level the successful tenderer has to work on is the appropriate geographical level to undertake regional analysis (at least NUTS 2 for Austria, Belgium, Germany, Greece, Luxembourg, The Netherlands and NUTS 3 for Denmark, Finland, France, Italy, Ireland, Portugal, Spain, Sweden and United Kingdom) – subject to data availability within the timeframe of the project. For certain indicators a geographical breakdown to landscape units (such as water basins) will be appropriate.

For indicators that cannot be developed at EU15 level, three representative case study areas shall be selected for indicator development and validation in three pilot regions of the EU (representative for agricultural systems in Western, Northern and Southern EU15 countries, respectively).

Indicators need 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.

Close co-ordination of work under the contract with other work at the EEA within the IRENA operation and the Bio-IMPs project 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.

The maximum budget available for work on the above tasks, including travel and subsistence costs, is **100,000 Euro**. The precise division of work and budget within the contract will be agreed with the successful tenderer at the beginning of the contract.

1.3.2 Tasks for LOT 2: Support for the IRENA indicator-based policy assessment report of the integration of environmental concerns into EU agriculture policy

The tasks to be performed are:

1. Analyse, describe and rank agri-environmental policy issues and CAP policy instruments that need to be covered by the indicator-based assessment. This is to be carried out on the basis of existing EU policy documents, EEA reports and relevant research literature, in consultation with the IRENA partners.
2. Expand a first EEA analysis of CAP policy targets that are relevant for the indicator-based assessment of policy integration (draft paper presented to EUROSTAT WG AEI 4 December 2002, included in Annex D).
3. Review how far the issues identified under 1. and 2. are covered by the 35 indicators and existing material at the EEA produced in the past.

4. On the basis of tasks 1 to 3 propose an extended outline of content for the indicator-based assessment that takes into account the integration areas listed under section 1.1.3 Lot 2 (Institutional Integration, market integration, management integration, monitoring/reporting progress). This outline needs to integrate the outcome of IRENA steering group meetings on the topic of policy integration (as documented in meeting minutes) and the summary record of a planned IRENA expert workshop on agri-environmental policy integration indicators.
5. After approval of the outline under point 4 by EEA project managers (in consultation with IRENA partners) writing of a draft indicator-based policy assessment report on policy integration in cooperation with EEA and IRENA staff.
6. Finalisation of the indicator-based assessment on the integration of environmental concerns into agriculture policy, after consultation on the draft report among IRENA partners and the EEA EIONET.

Close co-ordination of work under the contract with other work at the EEA within the IRENA operation and the Bio-IMPs project 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.

The maximum budget available for work on the above tasks, including travel and subsistence costs, is **60,000 Euro**. The precise division of work and budget within the contract will be agreed with the successful tenderer at the beginning of the contract.

1.4 Geographic coverage

The indicator development and reporting has to cover all 15 EU countries.

1.5 Time schedule and organisation of work

1.5.1 Time schedule and organisation of work for LOT 1: Development of selected agri-environmental indicator fact sheets and contributions to the IRENA indicator report

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 8 months. A detailed work plan must be elaborated at the start of the project and submitted at least one week before the start-up meeting for approval by the EEA Project Manager.

There are no special requirements regarding the location of work. It is envisaged that four meetings with the EEA Project Manager will be necessary for LOT 1:

- Start-up meeting to approve detailed work plan to execute LOT 1;
- 1st Interim meeting to approve the Survey of datasets (task1), the data compilation (task2), the development of a typology of agricultural holdings across EU15 (task3);
- 2nd Interim meeting to approve the draft indicator fact sheets (task4), the validation of the approach and results (task5) and the outline of the contributions to the IRENA indicator report (task6a); and,
- Final meeting to approve the typology of agricultural holdings across EU15 (task 3), the final indicator fact sheets (task 4) and the contributions to the IRENA indicator report (task 6b).

1.5.2 Time schedule and organisation of work for LOT 2: Support for the IRENA indicator-based policy assessment report of the integration of environmental concerns into EU agriculture policy

Work should begin within three weeks of signing the contract under LOT 2, and be completed by 1 December 2004. A detailed work plan must be defined at the start of the project and approved by the EEA Project Manager, and submitted at least one week before the start-up meeting.

Closer cooperation is required for work under LOT 2. It is expected that senior project staff spend at least 3-5 working days at the premises of the EEA during the following work phases:

- Start-up phase to discuss and finalise the detailed work plan for executing LOT 2;
- Interim phase to develop and finalise the outline of the indicator-based policy assessment report on policy integration (task4);
- Final phase to discuss and finalise the draft indicator-based policy assessment report on policy integration.

1.6 Deliverables

1.6.1 LOT 1: Development of selected agri-environmental indicator fact sheets and contributions to the IRENA indicator report

The tenderer should submit the following deliverables:

Detailed work plan to execute LOT 1, one week before the LOT 1 start-up meeting (three hard copies and one WORD file);

Interim report on the results of tasks 1), 2) 3), 4) and 5) including an outline of the contribution to the IRENA indicator report, approximately five months into the project (three hard copies and one WORD file);

ARC/INFO geodatabase coverage with look up tables (supplied as an ARC/INFO Export file format) that maps the typology of agricultural holdings across EU15; scale 1:1,000,000 and projected to the GISCO reference database. A metafile must be included providing details of the structure of the geodatabase, the data sources and describing the typology of agricultural holdings (approximately five months into the project);

Draft methodology/data and indicator fact sheets for IRENA indicators No. 5 Organic producer price premiums and agricultural income of organic farmers, No. 11 Energy use, No.13 Cropping/livestock patterns, No.15 Intensification/extensification, No.16 Specialisation/diversification, No. 17 Marginalisation and No. 27 Production of renewable energy (by source) four weeks before the end of the project (three hard copies and one WORD file);

Outline of the two environmental assessments that will contribute to the IRENA indicator report: energy use in the agricultural sector (Nos. 11 and 27.) and farming system changes in EU15 agriculture (Nos. 13, 15,16 and 17). (Three hard copies and one WORD file).

Final methodology/data and indicator fact sheets for IRENA indicators No. 5 Organic producer price premiums and agricultural income of organic farmers, No. 11 Energy use, No.13 Cropping/livestock patterns, No.15 Intensification/extensification, No.16 Specialisation/diversification, No. 17 Marginalisation and No. 27 Production of renewable energy (by source), including data sets (three hard copies, one WORD file, data supplied as EXCEL workbooks and maps supplied as ARC/INFO geodatabase coverages);

Two environmental assessments that will contribute to the IRENA indicator report: energy use in the agricultural sector (Nos. 11 and 27.) and farming system changes in EU15 agriculture (Nos. 13, 15,16 and 17). (Three hard copies and one WORD file).

1.6.2 LOT 2: Support for the IRENA indicator-based policy assessment report of the integration of environmental concerns into EU agriculture policy

The tenderer should submit the following deliverables:

A detailed work plan to execute LOT 2, one week before the LOT 2 start-up meeting (three hard copies and one WORD file);

Extended outline of content for the indicator-based assessment on the integration of environmental concerns into agriculture policy (three hard copies and one WORD file);

A first draft indicator-based assessment on the integration of environmental concerns into agriculture policy (three hard copies and one WORD file); and,

Final indicator-based assessment on the integration of environmental concerns into agriculture policy (three hard copies and one WORD file).

1.7 Payment

1.7.1 Payment schedule for LOT 1

- 30 % within 45 days of signing of the contract;
- 40 % within 45 days of acceptance of deliverables 1, 2, 3, 4 and 5; and,
- The balance within 45 days of acceptance of deliverables 6 and 7.

1.7.2 Payment schedule for LOT 2

- 30 % within 45 days of signing of the contract;
- 40 % within 45 days of acceptance deliverables 1, 2 and 3; and,
- The balance within 45 days of acceptance of deliverable 4.

1.8 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.

1.9 Submission of tenders

- a) The tender must include:
- all the information and documents required by the authorising department for the appraisal of tender, on the basis of the selection and award criteria in Section 1.11;
 - the filled-out identification sheet (Annex III to this technical specification)
 - the price in accordance with Section 1.10.

- b) Postal address: the European Environment Agency, Kongens Nytorv 6, DK-1050 Copenhagen K, Denmark, for the attention of Dr. Jan-Erik Petersen and marked “Reply to call for tender EEA/EAS/03/002 LOT1” or “Reply to call for tender EEA/EAS/03/002 LOT2”.
- c) Languages in which they must be drawn up: 1 of 13 official languages of the European Environment Agency (the 11 official European Community languages plus Norwegian or Icelandic).
- d) Deadline for submission: 52 calendar days from dispatch of this call for tender to the Official Journal of the European Communities.
- e) Other requirements: Tenders for each Lot (if applicable) must be submitted and sent separately in three copies and placed inside two sealed envelopes. The inner envelope, addressed to the person indicated above, should be marked either: “Invitation to tender EEA/EAS/03/002 LOT 1 Not to be opened by the internal mail department” or “Invitation to tender EEA/EAS/03/002 LOT 2 Not to be opened by the internal mail department”. If self-adhesive envelopes are used, they must be sealed with tape and the sender must sign across the tape.

1.10 Prices

Prices must be fixed amounts in EURO. Apart from a total offer for the services, rates per day should be given. In addition the tenderer is requested to detail the expected part of the budget allocated to each task.

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 (see Annex IV).

The estimate of costs should be based on Annexes I, II and 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.

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

1.11 Selection of contractors and award of contracts

The selection of contractors and the award of contracts will be carried out separately for both Lots and based on the following steps:

1. a check whether certain contractors should be excluded based on **grounds for exclusion**;
2. a check on contractors' financial and economic standing and technical and professional competence based on **selection** criteria;
3. a comparison of tenders on the basis of the **award** criteria

1.11.1 Grounds for exclusion

Irrespective of the award procedure used, any contractor may be excluded from participating in a contract if:

- he is bankrupt, being wound up or has suspended business activities, his affairs are being administered by the court, he has entered into an arrangement with creditors or similar measures or is the subject of any proceedings of that nature;
- he has been convicted of an offence concerning his professional conduct by a judgement which is not open to appeal;
- he has been guilty of grave professional misconduct;
- he has not fulfilled obligations relating to the payment of social security contributions or taxes;
- he is guilty of serious misrepresentation in supplying the information required by the authorising department.

Potential contractors must certify that they are not in one of the situations listed above by signing and including the attached Declaration on Exclusion Criteria (Annex VI).

1.11.2 Selection criteria

The selection criteria for contractors is based on financial and economic standing and technical and professional competence.

1.11.2.1 Financial and economic standing

Evidence of financial and economic standing may be furnished by one or more of the following references:

- statements from bankers
- balance sheets or extracts from balance sheets
- a statement of overall turnover and turnover relating to the relevant supplies, works or services.

1.11.2.2 Technical and professional competence

Evidence of technical and professional competence must be furnished by the following references:

- The educational and professional qualifications of the proposed consultants
- A list of relevant contracts provided in the last three years
- A statement of the service provider's average annual manpower and the number of managerial staff for the last three years
- A description of the service measures for ensuring quality
- An indication of the proportion of the contract, which the service provider may intend to sub-contract.

1.11.3 Award criteria

1.11.3.1 Award criteria for LOT 1

The contract will be awarded to the most advantageous offer taking into account:

- **Expertise** - the consultants' knowledge of European farming systems and their impact on the environment, agro-economic expertise and knowledge of EU statistical data sets as evident from their previous projects and publications/reports;
- **Methodology** - the degree to which the methodology and detail of the consultants' work plan shows the capacity to provide the required deliverables;
- **Project management** – based on the quality of the team organisation and project management procedures, which should be clearly outlined in the tender; and,
- **Understanding** – the degree to which tenderers have taken into consideration all the aspects of the tasks required by the contract, such as they appear above, as well as the contents of the deliverables.

- **Value for money** – the day rates and the number of working days offered within the maximum budget available.

1.11.3.2 Award criteria for LOT 2

The contract will be awarded to the most advantageous offer taking into account:

- **Expertise** - the consultants' knowledge of EU agri-environmental policy and environmental issues linked to farming in the EU15. In addition, the consultants experience with policy integration analysis and related indicator approaches;
- **Methodology** - the degree to which the methodology and detail of the consultants' work plan shows the capacity to provide the required deliverables;
- **Project management** – based on the quality of the team organisation and project management procedures, which should be clearly outlined in the tender; and,
- **Understanding** – the degree to which tenderers have taken into consideration all the aspects of the tasks required by the contract, such as they appear above, as well as the contents of the deliverables.
- **Value for money** – the day rates and the number of working days offered within the maximum budget available.

1.11.4 Points system

A points system is used to choose the best tender. The distribution of maximum points to each criterion is as follows:

- 25 points to 'Expertise'
- 35 points to 'Methodology'
- 15 points to 'Project Management'
- 10 points to 'Understanding'
- 15 points to 'Value for money'

ANNEXES

Annex A: Selected Indicator Methodology Fact Sheets

Annex B: Methodology / Data Fact Sheet Model

Annex C: Indicator Fact Sheet Model

Annex D: Draft EEA paper: “Agri-environmental indicator development in a policy assessment perspective” presented to WG AEI at EUROSTAT 4 December 2002

Annex I: Model for standard service contract

Annex II: General terms and conditions applicable to contracts awarded by the EEA

Annex III: Identification sheet

Annex IV: Reimbursement of travel expenses

Annex V: VAT and excise duty exemption form

Annex VI: Declaration on Exclusion Criteria