Executive Summary

Introduction
For the 2007-2013 programming period the EU-member states will have to produce new Rural Development Programmes. In order to assist everybody involved (programme managers, evaluators, desk officers etc.) the European Commission, DG AGRI, has commissioned several studies to give guidance and explanation on the new requirements. This study deals with the subject of baseline indicators, and its goal is formulated as:

“…provide draft guidance as an input to the Commission on the use of baselines and baseline indicators in rural development programmes in the new programming period from 2007-2013. In addition, it will provide a first assessment of baseline conditions in the member states. This guidance and assessment will be used as a basis for guidelines to Member States on programme development and evaluation corresponding to the increased focus on programme strategies in the proposed Rural Development regulation.”

In line with this goal, the study and this summary have the following structure:
1. Explanation of key concepts;
2. Definition of common baseline indicators that correspond to the hierarchy of objectives;
3. Treatment of additional baseline indicators.

In the following paragraphs, the main results of this study are presented.

Explanation of key concepts
In order to provide the reader with the same information and definitions, the first step is to explain the key concepts of programming and evaluation. We will concentrate on the topics that are most relevant for baseline and impact indicators. This starts with the programme life cycle.

Rural Development Programmes are instrumental to achieve certain policy objectives, that are relevant on the EU-level, the national level and the regional level.

The programme life cycle is a term used to describe the lifespan of a specific (rural development) programme, from its formulation to the review of the different parts of the programme:
- The assessment of the needs: the assessment of the Strengths, Weaknesses, Opportunities and Threats (SWOT-analysis).
- Programme development: prioritisation of the needs and opportunities determines the hierarchy of objectives in the strategy, and the formulation of the objectives of the programmes.
• Implementation of the programme through projects
• Monitoring, based on the objectives, redefined as indicators
• Periodic evaluation
• Programme revision and adaptation.

For most of these stages it is essential to use indicators, as the indicators form the basis of a good analysis (and thus the programme), the monitoring and the evaluation. Baseline indicators are especially important for analysis (and thus setting of objectives), periodic evaluation and programme revision.

For the next programming period the following structure is applicable:
• The Council Regulation, in which the objectives, sub-objectives and measure objectives are defined;
• The Community Strategic Guidelines, which defines the priorities;
• The National Strategies for each member state, in which the specific needs and objectives of the country and its regions are specified.

The new Council Regulation on the EU’s rural development policy envisages reinforcing the current rural development policy and a simplification of its implementation. In order to ensure that EU’s rural development policy stays focussed on the most important and urgent rural development issues, the propose reform is structured along three major policy objectives, that are further detailed in sub-objectives and measure objectives. Together this forms the Hierarchy of Objectives (HoO). This HoO is crucial for programme development and indicator development as it highlights the logic of interventions (see below). The individual member states should base their national strategies on the HoO, but of course taking into account the specific needs and objectives of the country and its regions. Thus, based on the analysis of the own situation, the choice can be made as to which measures are most important, or whether there are additional objectives to be set.

For the baseline indicators and the impact indicators, the objectives and sub-objectives are the relevant levels in the Hierarchy of Objectives. These are presented in Figure 0.1. It should be noted that Leader is actually not an objective but an axis. It contributes to the achievements of the objectives of one or several of the three thematic axes (these are directly linked to the objectives), in addition to support the capacity building and working of the local action groups.
1 Leader is not an Objective but an axis that contributes to the achievement of the objectives of one of several of the three thematic axes, in addition to support the capacity building and working of local action groups.

The intervention logic is a tool used to relate the implementation of a public intervention to its objectives, based on a schematic presentation of the chain of causality between programme (measures) and expected effects. Schematically, this intervention logic is presented in the following figure.
• Inputs: financial and administrative means mobilised (e.g. EAFRD-funding per RDP measure, number of administrative staff involved in the implementation of a measure);
• Outputs: what is accomplished with the means mobilised (e.g. farm investment financed by EAFRD-funds; organisation of training sessions about sustainable agriculture);
• Results: the initial benefits arising from the programme, normally measurable at the level of the project (e.g. GVA of supported farmers, better skilled farmers);
• Impacts: the indirect effects at the level of the programme (e.g. Improvement of the environment in rural areas, higher revenue of farmers).

In order to judge whether the intervention logic in practice will bring the benefits as are intended, it is necessary to define and use indicators.

An indicator can be defined as a measurement, it can measure an objective to achieve, a resource mobilised, an output accomplished, an effect obtained or a context variable.

Defining and using the appropriate indicators is an integral and necessary part of programming. Indicators are used in all stages of the programme life cycle. For the various aspects of programming, various types of indicators are relevant:
• Analysis and defining and quantifying objectives: baseline and input indicators
• Monitoring: input, output and result indicators
• Evaluation: as above and impact indicators, depending on the type of evaluation (ex ante, mid term, ex post)

Indicators play a crucial role in the programme life cycle and well-defined set of indicators is essential to construct and implement a good (rural development) programme.
In this study a distinction is made between context baseline indicators and impact related baseline indicators. Both types of indicators reflect the situation at the start of a programme against which changes over time can be measured.

1. **Context baseline indicators** provide information on the relevant aspects of the general context in which a programme is implemented and that are likely to have an influence on the performance of the programme, but at the same time will not be targeted (directly) by the programme. The context baseline indicator serves two purposes:
   - Identifying strengths and weaknesses within the region;
   - Explanation for impacts achieved within the programme, as these changes in factors can work counterproductive or supportive in achieving the objectives.

2. **Impact related baseline indicators** will be influenced by the programme and are the basis for measuring effectiveness. They are the baseline (or reference) of the programmes’ impact.

Impact indicators represent the consequences of the programme beyond its direct and immediate interaction with addressees or recipients; they represent the policy goals of a programme and relate to the general objectives and indirect effects.

Where baseline indicators reflect a situation in a certain moment of time, the impact indicators reflect the change in the baseline indicator over time. This can be measured in absolute numbers or in percentages.

In the next figure the relationship between these baseline indicators and the SWOT, strategy and impact is presented.

The indicators are instrumental to both programming and monitoring and evaluation. Monitoring and evaluation serve as an important tool for the management and control for rural development programmes.
Monitoring and evaluation have several functions:

- assessing the progress of a programme;
- assessing the relevancy, effectiveness, efficiency and management of a programme (evaluation);
- deliver input for adjustment of the programme where necessary in order to achieve the objectives
- analyse disparities between expected results and final results
- Dissemination of results to a wider public.

Monitoring is to follow the implementation of the programme on a regular basis through a standardised and transparent system, based on indicators. Evaluation goes more in depth, looking at the (expected) results and impact of the programme and analysing reasons for disparities between expected results and final results. Evaluation activities are therefore performed at several moments in the programming process: before (ex ante, in an interactive way with the programmers), during (on-going) and after (ex post). Without proper indicators it is impossible to conduct good evaluations, which means that programme management loses an important tool in the decision making process (specially ex ante and on-going).

If the baseline indicator is used as reference for impact indicators, the trend over programme time will be important in measuring the achievement of the targets. Impact indicators will be influenced by more factors than the programme alone, due to their general character. For this purpose a distinction should be made in net and gross effects, in order to determine the contribution of the programme. However, this is often a difficult exercise.

**Definition of common baseline indicators**

In the context of the next programming period, the Hierarchy of Objectives plays a central role. It is the base for the member states to develop and specify their own national strategy. For the objectives as set in the HoO it is proposed to use a limited set of common (baseline) indicators: they reflect these objectives. In addition to this the member states are obliged to define additional indicators, reflecting their specific needs and objectives (see further).

Based on the hierarchy of objectives, the common baseline indicators have been identified for the new rural development programme. Besides the fact that it should be a limited number of indicators, other criteria for selection were availability of data and possibility of aggregation. The base for selection was a long list of indicators, building upon the baseline indicators for the 2000-2006 period. It turned out that the availability of harmonised data on the regional level is a major obstacle. Therefore the possibility is created to use, where necessary, non-harmonised data.

The result of this activity is an overview of common baseline and impact indicators. These indicators are further described in indicator fiches (see 0.5), indicating the essential information like the link to the objective, the unit of measurement, sources, availability, and so on.

Next to this, a dataset for the EU-25 on NUTS 2 level on the indicators is delivered, filled as far as data were available on centralised sources.
In the following figure the indicators are presented, structured on the objectives.

Table 0.1 Common baseline and impact indicators for rural development 2007-2013

<table>
<thead>
<tr>
<th>AXIS</th>
<th>OBJECTIVES</th>
<th>Status</th>
<th>Baseline Indicator</th>
<th>Impact Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal</td>
<td>General</td>
<td>CR</td>
<td>Economic development</td>
<td>=</td>
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<td></td>
<td></td>
<td>CR</td>
<td>Unemployment</td>
<td>=</td>
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<td></td>
<td></td>
<td>CR</td>
<td>- for female</td>
<td>=</td>
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<td></td>
<td></td>
<td>CR</td>
<td>- for young</td>
<td>=</td>
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<td></td>
<td></td>
<td>CR</td>
<td>Economic development of primary sector</td>
<td>=</td>
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<td></td>
<td></td>
<td>CR</td>
<td>Social development of primary sector</td>
<td>=</td>
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<td></td>
<td></td>
<td>CR</td>
<td>Age structure</td>
<td>=</td>
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<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Employment structure</td>
<td>=</td>
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<td></td>
<td></td>
<td>CR</td>
<td>Population coverage by LAG’s</td>
<td>=</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Training and education in agriculture</td>
<td>Increase in training and education in agriculture</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Labour productivity in agriculture</td>
<td>Increase in labour productivity in agriculture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Age structure in agriculture</td>
<td>Improvement in age structure in agriculture</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Gross fixed capital formation in agriculture</td>
<td>Increase in gross fixed capital formation in agriculture</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Economic development of food industry</td>
<td>Increase in economic development of food industry</td>
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<td></td>
<td></td>
<td>IR</td>
<td>Labour productivity in food industry</td>
<td>Increase in labour productivity in food industry</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Gross fixed capital formation in food industry</td>
<td>Increase in gross fixed capital formation in food industry</td>
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<td></td>
<td></td>
<td>IR</td>
<td>Number of semi-subsistence farms in NMS</td>
<td>=</td>
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<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Farm structure</td>
<td>=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Gross fixed capital formation in forestry</td>
<td>Increase in gross fixed capital formation in forestry</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Labour productivity in forestry</td>
<td>Increase in labour productivity in forestry</td>
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<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Social development of forestry</td>
<td>=</td>
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<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Forestry structure</td>
<td>=</td>
</tr>
<tr>
<td>AXIS 1, Competitiveness</td>
<td>Competitiveness in agriculture and food sector</td>
<td>IR</td>
<td>Agriculture areas under Natura 2000</td>
<td>Increase in agriculture areas under Natura 2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Forestry areas under Natura 2000</td>
<td>Increase in forestry areas under Natura 2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Population of farmland birds</td>
<td>Increase in population of farmland birds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>High Nature Value farmland areas</td>
<td>Increase in High Nature Value farmland areas</td>
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<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Areas of extensive agriculture</td>
<td>=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Water quality</td>
<td>Increase in water quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Water use</td>
<td>=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Pollution: by nitrates and pesticides</td>
<td>Decrease in pollution: by nitrates and pesticides</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Climate change: production of renewable energy from agriculture</td>
<td>Climate change: increase production of renewable energy from agriculture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Climate change: share of agriculture in GHG emissions</td>
<td>Climate change: decrease in share of agriculture in GHG emissions</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Soil: areas at risk of soil erosion</td>
<td>Soil: decrease in areas at risk of soil erosion</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Soil: organic farming</td>
<td>Soil: organic farming</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Land use</td>
<td>=</td>
</tr>
<tr>
<td>AXIS 2, Land management</td>
<td>Environment</td>
<td>IR</td>
<td>Agriculture areas under Natura 2000</td>
<td>Increase in agriculture areas under Natura 2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Forestry areas under Natura 2000</td>
<td>Increase in forestry areas under Natura 2000</td>
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<tr>
<td></td>
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<td>IR</td>
<td>Population of farmland birds</td>
<td>Increase in population of farmland birds</td>
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<td></td>
<td>IR</td>
<td>High Nature Value farmland areas</td>
<td>Increase in High Nature Value farmland areas</td>
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<td></td>
<td></td>
<td>CR</td>
<td>Areas of extensive agriculture</td>
<td>=</td>
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<td></td>
<td></td>
<td>CR</td>
<td>Water quality</td>
<td>Increase in water quality</td>
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<td></td>
<td></td>
<td>CR</td>
<td>Water use</td>
<td>=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Pollution: by nitrates and pesticides</td>
<td>Decrease in pollution: by nitrates and pesticides</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Climate change: production of renewable energy from agriculture</td>
<td>Climate change: increase production of renewable energy from agriculture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Climate change: share of agriculture in GHG emissions</td>
<td>Climate change: decrease in share of agriculture in GHG emissions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Soil: areas at risk of soil erosion</td>
<td>Soil: decrease in areas at risk of soil erosion</td>
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<tr>
<td></td>
<td></td>
<td>IR</td>
<td>Soil: organic farming</td>
<td>Soil: organic farming</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CR</td>
<td>Land use</td>
<td>=</td>
</tr>
</tbody>
</table>
Guidelines on constructing additional baseline indicators

The Council Regulation on support for rural development contains the general EU-objectives for rural development. In order to measure the achievement of these objectives, the common baseline indicators are proposed. The list of common baseline indicators is thus by essence limited. It reflects the general objectives, but it doesn’t necessarily reflect specific situations with respect to countries, regions, sectors or social groups. As the RDP’s for each member state should of course focus on the country specific or region specific needs and objectives, it is necessary to construct additional baseline indicators, reflecting these specific needs and objectives. This is a task for programme management and/or ex ante evaluators.

Additional baseline indicators are necessary when:
- the member state chooses to define an additional objective;
- or, if the common baseline indicator is not specific enough (with respect to the level of detail of the sub-objective, for instance ‘training’ should be ‘training in IT’);
- or, if there is no common baseline indicator for a defined sub-objective (like animal welfare);
- or, if a common indicator doesn’t cover the specific situation in a country, region or sector.

As there is a wide variety of specific situations and needs throughout the rural areas in the EU it is impossible to produce an exhaustive list of additional baseline indicators.

The report therefore contains examples, by sub-objective (see 1.2), of possible additional baseline indicators. As said before, they can cover a wide variety of situations, ranging from specific natural conditions (mountains, see, climate etc.) to regional structure (islands, remote areas), importance of (sub)sectors, demographic development, environmental conditions and objectives, labour population, infrastructure etc.

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**Table: Additional Baseline Indicators**

<table>
<thead>
<tr>
<th>AXIS 3, Wider rural development</th>
<th>OBJECTIVES</th>
<th>Status</th>
<th>Baseline Indicator</th>
<th>Impact Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversification</td>
<td>IR</td>
<td>Other gainful activity of farmers</td>
<td>Increase in other gainful activity of farmers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Employment in non-agricultural sector</td>
<td>Increase in employment in non-agricultural sector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Micro enterprises</td>
<td>=</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>GVA in non-agricultural sector</td>
<td>Increase in GVA in non-agricultural sector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Tourism infrastructure in rural areas</td>
<td>Increase in tourism infrastructure in rural areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Internet take-up in rural areas</td>
<td>Increase in internet take-up in rural areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR</td>
<td>Internet infrastructure</td>
<td>=</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Share of GVA in services</td>
<td>Increase in share of GVA in services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Net migration</td>
<td>Decrease in net migration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Training and education in rural areas</td>
<td>Increase in training and education in rural areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR</td>
<td>Educational attainment in rural areas</td>
<td>=</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR</td>
<td>Importance of rural areas</td>
<td>=</td>
<td></td>
</tr>
</tbody>
</table>

**Leader**

| To implement the Leader approach in mainstream rural development programming | IR         | Population coverage by LAG’s | Increase in development of LAG’s |
|                                                                              | IR         | GVA in rural areas | Increase in GVA in rural areas |
|                                                                              | IR         | Employment in rural areas | Increase in employment in rural areas |
|                                                                              | CR         | Internet infrastructure | = |
**EXAMPLE of Sub-objective: to facilitate transition in new member states**

*Rationale for the sub-objective*

Transition in the new Member States, restructuring of the agriculture sector and entrepreneurship are important factors for improving competitiveness of agricultural, forestry and agri-food sectors.

This transition can be realised and stimulated through supporting semi-subsistence farms undergoing restructuring and supporting setting up of producer groups. Especially rural development is a key tool for restructuring.

*Common and additional indicators capturing the rural development needs specific to this sub-objective*

The common baseline indicators are:

<table>
<thead>
<tr>
<th>Common baseline indicator</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour productivity in agriculture</td>
<td>Labour productivity in agriculture (EU 25 = 100) – total and by sector</td>
</tr>
<tr>
<td>Economic development of primary sector</td>
<td>% of GVA in primary sector</td>
</tr>
<tr>
<td>Labour productivity in food industry</td>
<td>GVA/employee in food industry</td>
</tr>
<tr>
<td>Semi-subsistence farms in NMS</td>
<td>% farms &lt;1 ESU</td>
</tr>
</tbody>
</table>

There are no context indicators defined

This sub-objective refers specifically to the new Member States. The measures are directed towards support for semi subsistence farms to enter the market and setting up of producer groups. For the latter issue no baseline indicator is defined.

These indicators are good for general trends. However, also additional indicators are required for the specific needs of the new Member States. These could be:

- Indicators related to restructuring of farms;
- Indicators related to labour productivity in a certain (sub-)sector;
- Indicators related to setting up producer groups

*Key aspects linked to EU priorities and specific national priorities*

The new Member States should identify priorities to facilitate their transition. Many New Member States will identify specific national conditions and appropriate policy priorities with corresponding indicators. Such priorities could include:

- Restructuring the agriculture sector;
- Fostering dynamic entrepreneurship including development of strategic and organisational skills;
- Encouraging semi-subsistence farms in the NMS to move into the market;
- Encouraging the setting-up of producer groups.

As a next step, a checklist for constructing additional baseline indicators is developed. Programme managers and evaluators can use this checklist to decide whether an additional indicator is necessary and, if so, how to construct it. It should be kept in mind that indicators have to be constructed according to the SMART-principle: Specific, Measurable, Available, Relevant and Timely. The checklist is presented in part C of this report, together with some (hypothetical) examples.
If an additional indicator is necessary and defined, a detailed indicator fiche has to be elaborated. This fiche serves a last check on the quality of the indicator, as the logic has to be described. Secondly, the fiche ensures a uniform interpretation of the indicator. The fiche should, among others, contain information on the exact definition of the indicator, its link to the objective, the unit of measurement, the source, the availability and the frequency of collection.

Examples of indicators fiches can be found in several chapters of this report. For all the common baseline indicators fiches are presented in Annex 1. The structure of the indicator fiches for additional baseline indicators is exactly the same.

**Recommendations**

The construction of indicators is a ‘craft’ that cannot easily be learned from paper. Especially the construction of additional baseline indicators may require more guidance and training than can be presented in a paper like this. We therefore advice - additional to this guidance - to organise training sessions for programme managers and (potential) evaluators. Furthermore, we suggest setting up a helpdesk within DG AGRI where programme managers and evaluators may receive additional support. This could have the following structure. An idea is to set up one or two day training sessions for groups of member states.

This way the participants can learn in a practical way, for instance by using case studies, to construct additional baseline indicators. Moreover, the participants can learn from each other, exchange experiences etc. It also gives DG AGRI the possibility for further explanation (if necessary) on the next programming period. This training doesn’t have to limit itself to the additional baseline indicators, but can also be used to train the participants in for instance the additional output indicators.

With respect to the help desk, we suggest that DG AGRI sets up a contact point for the member states where they can get support on practical issues when working on the additional baseline indicators. This help desk can have the form of one central phone number and mail address, where experts can assist the member states in their day to day work in the programming period. A small survey we carried out in our network shows that there is certainly demand for such sort of assistance, as practice shows that guidance on paper is never able to address all the various questions that arise during the programming process.