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## Working Paper

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Institute of Farm Economics  
Institute of Market Analysis and  
Agricultural Trade Policy



## **Proceedings of the European Workshop on the Evaluation of:**

- Farm Investment Support**
- Investment Support for Improvement of  
Processing and Marketing of Agricultural  
Products**

edited by

**Angela Bergschmidt  
Walter Dirksmeyer  
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Inge Uetrecht**

**Working Papers in Agricultural Economics**

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## Foreword

In June 2006, a European workshop on the evaluation of the support measures

- farm investment support and
- improvement of processing and marketing of agricultural products,

both covered by regulation (EC) No. 1257/1999, took place at the Federal Agricultural Research Centre (FAL) in Braunschweig, Germany. These proceedings comprise papers corresponding to the presentations that were given by the participants at the workshop.

The motivation for the workshop was to facilitate an exchange of experiences made and lessons learned in the course of the evaluation of the measures mentioned above in different European countries. The desire for such an exchange evolved because there is a lack of discussion partners on the national level in Germany. Further reports from other member states are usually written in native languages and often are not published.

In order to enhance the workshop character the organisers invited all participants to prepare a presentation and an accordant paper. Presentations were given by participants from 12 European countries (Table 1, all participants are listed in the appendix). The papers reflect the institutional and financial setting of the measures, show results of previous evaluations or discuss methodical approaches of the evaluations.

**Table 1:** Participants in the special sessions on single measures by country

Countries	Farm Investment	Processing & Marketing
Austria		+
Belgium (Wallonia)	+	
France	+	
Germany	+	+
Greece	+	
Italy	+	
Netherlands	+	+
Poland	+	
Portugal		+
Spain	+	
Switzerland	+	
UK (England)		+

Complementary and general aspects of the evaluation of the abovementioned measures and the programmes they are embedded in, the European framework for evaluation and the financial market for farmers were presented and discussed by international experts in the workshop.

The workshop was structured as follows (see also the workshop programme in the appendix): the first day gave stimuli for discussions from different angles regarding evaluation and investment. For this purpose three presentations were given on “Methodological Issues of Evaluation,” “Conflicts and Synergies in Programme and Measure Evaluation,” and “Agricultural Finance in the Netherlands with Special Regards to Public Investment Support”.

The second day was designated for parallel sessions for farm investment support and investment support in processing and marketing. The reason for this was that although both support schemes deal with investment support, there are also important differences with respect to evaluation questions, database and methodologies of analysis.

On the final day the results of the work group sessions were presented in the plenary session and further presentations were given on “How to Evaluate a Measure without Goals?”, “EC Common Baseline Indicators in New Programming Period: an Evolution towards a Strategic Approach in Use of Indicators” and “Ex Ante Evaluation of the New Rural Development Programme in the Netherlands”.

After these presentations and their discussion, some time was dedicated to an open discussion of the following questions:

- What are the relevant questions for a sound evaluation of investment support?
- What is the impact of evaluation results on policy and administration?
- Do evaluators of investment support need international exchange?

These proceedings are structured roughly along the workshop programme. The papers of the presentations in all plenary sessions and the subsequent discussions are placed at the beginning, followed by the papers which belong to the work group sessions, and the proceedings close with the concluding discussions of the last day.

During the workshop it became clear that problems and questions faced by the evaluators are quite similar in most countries. The main problems are caused by inconsistent intervention logics, the unsatisfying data situation, uncertainties in the adherence to European guidelines for evaluation and difficulties in the communication with decision makers and administrators. One basic problem arises from the nature of the investment support measures which often cause real effects and impacts only with a considerable time lag. In contrast, evaluations, as they are widely designed, only analyse short- and medium-term effects. Especially the discussions and presentations on methods and indicators

revealed that evaluation of investment support is a very complex undertaking. In this field not only are easily manageable methods and accessible data rare, but in many cases even the theoretical foundations for the assessment are lacking.

Therefore evaluation reports remain rather descriptive. Net-effects are hardly analysed at all and effects on the sector level have usually not been the focus of the evaluations conducted so far. Frequently used methods are before-/after-studies, and in the case of farm investment support, with-/without-comparisons. Usually, evaluators adhered strictly to the European evaluation framework with their Common Evaluation Questions (CEQs). While the indicators of the European Commission have been meticulously executed, the most crucial questions of Evaluations remain unanswered. A clear assessment of the measures' (expected) effects and efficiency was not reached, in large part due to the methodical and data problems experienced.

Approaches and attitudes towards evaluation differ among evaluators. A division-line might be drawn between client-oriented and scientific-oriented evaluators. An exchange of information between these two groups seems to be especially promising. The workshop tried to serve as a first step on this way. In this regard these proceedings aim at presenting an overview on the aspects discussed during the workshop and on the focus of measures and evaluations in the different European countries.

This European workshop is in line with a previous workshop in Braunschweig in January 2004, when the FAL tried for the first time to encourage exchange of experience among evaluators after having finished the mid-term evaluation. The organization of the recent workshop was in part quite cumbersome because of difficulties in getting the addresses of relevant evaluators. We expected we could get backing by the evaluation department of the European Commission, but their obligation to data secrecy did not allow them to deliver the desired addresses. There was a wide consensus among participants that international exchange should be continued. We thus hope that we will be able to organise another evaluation workshops in about two years time, in line with the Commission's objective to improve the quality of evaluation and to establish a network of evaluators.

We thank all the participants who contributed to the success of this European Evaluation Workshop by preparing presentations and papers and hope for a growing interest in the evaluation of policy measures which intend to improve the development of rural areas. Since many questions still remain open, the evaluation of such measures is interesting and challenging.

Braunschweig, August 2006

*Angela Bergschmidt*

*Walter Dirksmeyer*

*Bernhard Forstner*



## **Papers Presented in the Plenary Sessions**



# Methods for the Evaluation of Investment Support

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## 1 Introduction

The aim of this paper is to deliver a brief overview of the methods which are used to evaluate investment grants, or investment subsidies in general. It is focused on the evaluation of single measures, not on programme evaluations. This overview is mostly based on own experiences and other evaluations in German regions and in the framework of the European Fund for Regional Development (EFRD).

For a general classification of the subject of this paper it is necessary to differentiate three main levels of evaluation: First an evaluation of the support strategy needs to be undertaken, which is mainly the part of the programme evaluation<sup>1</sup>. Second the implementation of the assistance needs to be evaluated. Often efficiency gains are possible. Third – and most important for the assessment of the single measure – is the analysis and evaluation of the impacts of the subsidies. In the last instance the impacts of the measure should be the legitimization of the public aid. Hence this paper focuses on methods for impact evaluation of investment support.

The paper is divided into four parts. In the next chapter the most important problems and needs of the evaluation of investment support are shown. These deliver the starting point and the criteria for the assessment of different methods suitable for evaluation investment subsidies. Afterwards, the main methods for evaluating investment support are presented including a short classification of their advantages and their problems. In the conclusion of this paper one of the methods is used to give a summarizing assessment of the evaluation methods. Finally, some additional conclusions are drawn.

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<sup>1</sup> Some of the methods examined below are also appropriate for the programme evaluation.

## 2 Problems and needs in evaluating investment support

### *Impact evaluation*

A first problem which appears often with the evaluation of investment subsidies is the understanding of the notion of impact. In the systematic of structural funds, a distinction is made between output, results and impacts. In practise, the borderlines between these three categories are soft and all three levels should be considered, of course. Unfortunately, a magnitude of evaluations was conducted focussing mainly on output and results rather than „real“ impacts. Mostly this is due to the limited resources available for an evaluation. But without an assessment of the impacts of the public aid, no recommendation and no corrections of the measure are possible. So, a first criteria is the assessment of impacts at least on a qualitative level.

This problem is closely connected to the definition of what might be the “right” impact of the investment aid. Generally one of the main objectives of investment support measures is to increase or at least protect the number of jobs in the subsidized sector. Consequentially the number of created jobs in assisted enterprises is described as the most important effect. However, these effects are not consistent with the economic logic of the instrument. Due to lower capital costs, in a large share of the supported investments, labour is substituted by capital, at least in the short run (substitution effect). In the long run the number of jobs may increase again due to rising productivity, competitiveness and rising outputs of the firm (output effect).

An evaluation which is only or mainly based on short run employment effects might yield misleading results. The evaluation has to consider the economic rationale and the cause and effect chains of the used instruments. On this foundation, a precise assessment can be conducted.

### *Gross effects*

Another major problem of an evaluation of investment support is the proper determination of its gross effects, i.e., a conclusive and complete accounting of the direct consequences of the investment (usually on output- and result-level). Problems which are often involved are the availability of data in general, the quality and validity of data, or the appropriateness of data. An additional problem is the validity of the information of the assisted firms, which may be distorted due to strategic behaviour or limited knowledge.

A prominent example in this context is the numbers of safeguarded jobs. Frequently, the whole number of jobs of a subsidized enterprise is counted as the number of jobs protected. This may lead to the interesting result, that there are more jobs safeguarded than existing within a particular sector. The reason for this is that some enterprises were

supported several times within a support cycle and all jobs of the firms were always declared to be safeguarded.

### *Determination of net effects*

The core problem of the evaluation of investment support is the identification of its net effects. These effects are the real impacts which can be directly linked to the height of support. In other words net effects are defined as those impacts which would not be realized if the investment support were not to be available to the beneficiaries. To bridge the gap between gross and net effects windfall gains, crowding out effects and the substitution of labour by capital need to be considered. Further potential displacement effects need to be taken into account.

**Windfall gains** occur when the investment support in parts or in the whole is not necessary to reach the desired impacts. In evaluation practice windfall gains are not easy to define. Even if a subsidized entrepreneur claims that a supported investment would not have been undertaken without the grant, a part of the grants may be windfall gains. The reason for this is that also a lower level of support could have been sufficient to initiate the investment. In contrast, even if an identical investment would have been carried out by the enterprise without any grant, the support may have positive impacts in the sense of the measure. The effects might be a higher volume, a higher technological level or an earlier beginning and realization of the investment or earlier follow-up investments.

**Crowding out** is caused by the displacement of turnovers and jobs from a non-assisted to an assisted firm. The investment grants for the assisted companies reduce their production costs or help them to enter a new market. The assisted firm can supply cheaper and / or better products and is able to take over the demand of the non-assisted firm partly or completely. For the assessment of impacts it is essential to know whether the non assisted firm is located in the assisted region or not.

**Substitution effects** are caused by the mechanism described above. To achieve positive, or at least no negative, effects on employment, the labour-substitution effect should be lower than the employment-increasing effect from output growth, at least in the long run (output effect). However, usually there is no information available on the long run development of productivity and labour input in scenarios with and without granting subsidies.

### *Strategic problems*

An additional category of problems may be called strategic problems. These strategic problems arise at the programme or policy level and refer to the allocation of public funds. While spending scarce resources from tax income, it is necessary to compare and to decide between different objectives of assistance and a number of potential support schemes to

reach these objectives (opportunity costs). These strategic problems are mainly the subject of programme evaluations and therefore are not considered here. However the evaluation of impacts of investment support as a part of a support programme is an important precondition for programme evaluation.

### *Efficiency and comprehensibility*

Beside the problems mentioned, some needs of the evaluation process arise in practise and should be considered:

An evaluation should be comprehensive and arguable for the target groups. In particular the underlying assumptions and prerequisites of the methods applied and the results need to be arguable. The target groups are the administration and the policy makers, but also the general public to create transparency on the use of tax income.

While selecting an appropriate method for the evaluation it is furthermore important that the efforts to apply a method are justified by the expected results. In particular the availability of data and the cost of their acquisition and analysis are of tremendous influence.

The named problems and needs have to be considered and to be accomplished by an evaluation of investment support schemes. Therefore these needs establish the criteria for selecting the methods of an evaluation. Of course, the problems mentioned are also the constraints of the explanatory power of the evaluation.

## **3 Comparison of methods suitable to evaluate investment support**

The methods and instruments for the evaluation of investment support which are utilised most are:

- discussion of cause-and-effect chains, check of economic plausibility,
- drawing conclusions from existing evaluations or scientific studies,
- indicators from monitoring data,
- questioning, case studies, field surveys, interviews with experts,
- with-and-without comparisons
- cost-benefit analyses
- multi-criteria analyses and
- econometric models.

The listed methods are not specifically designed for the evaluation of investment grants or evaluation purposes at all but are widely used in economic research. Of course the methods and instruments do not exclude each other but can and should be combined. In the following these methods will be briefly introduced.

### ***Cause-and-effect chains***

The development of cause and effect chains is defined as the notional application of economic theory in order to qualitatively determine the impacts of investment support. The results of such an analysis are not tailored towards the specifics of the support measure to be evaluated. For this reason the application of such a method is justified only if the resources available for the evaluation are very scarce and data for a more in-depth analysis is missing. However cause- and-effect chains should be the baseline to start from also when other methods are applied. An example for cause-and-effect chains is the theoretical effect of investment support on the labour demand of an assisted enterprise in the short and long run as depicted above. This example should be completed by considerations of the specific regulations of the measure, of the competitiveness of the subsidized enterprises and sectors, the market and growth situation in the assisted sectors and regions and so on. This method also includes a reflection of the implementation tools of the measure and whether they are adequate to meet the objectives.

On the plus side, this method does not need any data. A description of cause-and-effect chains needs to be easily understood, retraced and discussed. Further the effort to apply this method is small in comparison to other methods. General statements concerning net effects are even possible, although not very specific. The main drawback of this method is that it is not really analyzing investment support since it only applies general considerations of plausibility. Thus the accuracy of the considerations remains open since they are not backed up with any data.

### ***Reference to secondary studies***

A second method is the transference of results from existing scientific studies, evaluations, data analyses and so on to the ongoing case. The advantage is obvious: the effort for transferring results from existing studies, which may fit to the given case, is fairly small but considers empiricism. However, as in the first method, this is no genuine analysis of the measure to be evaluated. The biggest problem is to find studies which fit to the given case. The greater the differences are between the reference study and the given case, the weaker the results and recommendations of the current evaluation.

### ***Application of indicators based on secondary data sources***

A further method is the development and interpretation of adequate indicators of the impacts of the support measure. This is the most frequently used method. In many cases

the indicators can be derived from the data available from monitoring systems. Using such data usually restricts the analysis to output and results of the support scheme. The evaluation of impacts, e.g., on employment, on competitiveness or the identification of net effects usually is not possible.

The essential prerequisite to apply indicators in an evaluation is the availability of data. The situation for secondary data of investment support in comparison to other instruments is quite satisfactory, at least in Germany. A substantial share of the data required can be derived from the monitoring system. Additional secondary data sources are data bases from the implementing agencies, from governmental banks (if they are compulsory involved in implementing the support) and from private credit banks. However the further away these data sources are from the intervening governmental agency, the more difficult it is to get access to them.

Another problem is the interpretation of an indicator values. How much support per job is justified, what is too much? No substantial standards for the interpretation of the indicators are available, at least not in the European Regional Development Fund (ERDF). One way to solve this problem is a comparison with other evaluations of similar support measures or of measures with similar objectives. However such a comparison should be conducted carefully and needs to account for the initial situation and framework of both the given case and the one it is compared with.

### *Questionings, field surveys, case studies, and expert interviews*

In the absence of secondary data it may be necessary to collect primary data from the beneficiaries themselves but also from other actors involved in the support process such as experts from banks or advisory services. The overall goal of sampling primary data is to achieve additional and more profound information. The advantages are obvious. By asking the beneficiaries the effects of supported investments can be identified directly where they occur. Further, most recent effects can be detected too. Such information can serve as the basis for an impact evaluation. It is also possible to identify windfall gains on a single firm level, which is a prerequisite to determine the net effects of an investment support measure. The data from case studies and field surveys can also be used to determine indicator values.

A major problem of conducting case studies and interviews is possible strategic behaviour of the respondents in order not to counteract their own interests. For example, supported enterprises may feel controlled by the evaluator or may seek additional assistance in the future thus putting an overstated positive light on the support scheme. Also other experts involved often aim at restraining information, which may shorten the existence of the support measure.

Other problems are the costs of and the time required for conducting questionings and interviews. By far the most expensive and most time consuming technique is a face-to-face interview. Less resource-demanding are phone interviews and written questionnaires, in that order. Due to the resources required for the different interview techniques, face-to-face interviews are usually restricted to a limited number of case studies, whereas written interviews may be representative. In contrast, more detailed information are likely to be gathered in oral interviews.

### ***With-and-without comparisons***

A with-and-without comparison of investment support evaluations aims at identifying the differences in impacts from an investment due to the fact that one investment was subsidized and the other was not. Therefore enterprises with similar investments need to be found, which are basically identical in terms of their structure. Ideally the only difference is that one of the firms invested with and the other without having received support for the investment. The expected result of with-and-without comparisons is the identification of the net effects of support measure.

A special method of with-and-without comparisons, which has been applied to the evaluation of investment support recently, is the matched-pairs-approach. The approach is to find and compare pairs of enterprises which are matching: they are equal in their characteristics except for the only difference of having received investment support. In practice, matching pairs are difficult to find. To solve this problem, large samples of assisted and non-assisted enterprises are used. In these samples, matched pairs are assigned. If the sample is big enough, the differences in each pair (except for the fact of subsidizing) should be distributed randomly. The disturbances will be balanced over all pairs (on average).

The application of this measure requires the availability of a sufficiently large data set to enable the identification of a large number of similar cases. Another prerequisite is that the data set includes all relevant variables which characterize the firms, their investment and the impacts to be analyzed in the evaluation. And the assumptions of randomly distributed differences in the important attributes of the units has to be fulfilled.

In practice, a major problem in applying a with-and-without comparison is the identification of non-supported firms at all. Often, nearly all investing firms in the region of interest got investment aid. And if they did not get any funding, the enterprises usually are basically different from those which received investment support.

### ***Cost-benefit analyses***

A cost-benefit analysis might be the best method to analyze the effects of single projects or policy measures in theory. It covers an extensive assessment of the benefits and, of

course, considers the net effects. All costs and benefits are accounted for and discounted in order to identify the present value. Due to difficulties in the availability of data and the aggregation of heterogeneous impacts, cost-benefit analyses are on the evaluation of investment support measures as a whole. The cost-benefit analysis is well suited for large-sized, single investment projects and can deliver results for the evaluation of the whole measure, too.

### ***Multi-criteria analyses***

The multi-criteria analysis is an instrument to support decision-making in policy processes but it is also applicable as an instrument to assess support measures and programmes. Its main advantage is that it allows the comparison of decision-making criterias with different dimensions. If quantitative scores are used, an aggregation of the assessments of different decision criteria is possible. By making the decision-making criteria and the valuations explicit, the methods creates transparency in the decision process. Further advantages are that the method helps to structure the problem and to identify all relevant factors which determine or influence the impacts of investment support. It further contributes to revealing the relations between the measure, its goals, impacts and side effects.

For the evaluation of structural funds, and the ERDF in particular, the multi-criteria analysis was applied in some countries, so in Ireland or different federal states in eastern Germany. In the following chapter, a simple example for a multi-criteria analysis is presented.

### ***Econometric models***

The core procedure of an econometric model is to estimate the statistical relation between a depending variable and one or more explanatory variables. The statistical relation between explanatory and depending variable describes the impact of the explanatory variable (for example the investment grants) on the depending variable (for example the investment). Examples for the depending variable in the context of investment support are the height of investments, the competitiveness of investing firms or the employment impact. Explaining variables could be the interest rate, earlier earnings, the expected demand, the size of the enterprises and so on. The selection of explaining variables is derived from causal relationships based on economic theory. The influence of the explanation on the impact variable is depicted by the regression coefficients. For a proper specification of the model, all relevant explanatory variables had to be considered and the right mathematical function of the equation had to be found.

The most important advantage of econometric models is that the influence of an explanatory variable of interest, for instance the level of investment support, on the depending impact variable (e.g., the level of investments) is “corrected” by the influences

of the other variables. This is because all other variables are also quantified in their influence to the depending variable. Further, the importance of the variables of interest compared to all other variables considered in the model can be determined. Depending on the model specification net effects of investment support can be identified.

One major precondition of an econometric analysis is the complete and proper specification of the equation or the model. All causal dependencies concerning the impact variable have to be considered. The quantifying and the data availability of the explaining variables might especially be a problem. As a result, the statistical influence of the integrated variables might be misleading in the interpretation of its causal influence.

The use of econometric models is connected with high efforts. Very special competencies are necessary to construct, to understand and to interpret the mechanism and the results. At least for a complex model, a lot of theoretical, theory-guided or heuristic assumptions and premises are necessary during the design and implementation (and “tuning”) of the model. These assumptions might be crucial for the results and should be disclosed and discussed. Hence the results have to be interpreted with care.

#### **4 Conclusions and an example for an assessment of the evaluation methods**

The aim of the previous chapter was to present the most important methods with their advantages and problems. The choice of the appropriate method depends on the objective of the evaluation, the specific evaluation design and available capacities and competencies. Due to this, it is not possible to favour one method in general.

Taking this fact into account, one aim of this chapter is to try to present a condensed overview of the methods from a subjective point of view which is related to the practice. At the same time this chapter gives a very simple example of one of the presented methods – the multi-criteria-analysis.

Most of the above-mentioned methods are subsumed in table 1. Two methods are not recorded: The cost-benefit-analysis and the multi-criteria-analysis. These methods can deliver important information concerning the impacts of investment subsidies or can prove strategic recommendations in broad evaluations. However, they are not commonly used in an evaluation of investment support at present. The impacts of investment subsidies will be assessed by these methods within the framework of extensive evaluations. Hence, they are not considered in the quoted set of primary applicable and commonly used methods.

Applying a simple form of the multi-criteria analysis could be one way to find the most preferable method for the evaluation of investment support schemes. The first step in applying the multi-criteria analysis is to identify the different options, here the methods, which shall be compared. They are shown in the first column of table 1.

The second step is to define the criteria to be used to assess the different methods. In our case these criteria are derived from the problems and needs of the evaluation of investment assistance. These are the possibility to derive gross and net effects, the efforts required and the availability of data for the application of a method, the possibility to derive recommendations from the results and whether the results are arguable. The criteria are presented in the first row of table 1.

In the third step the scale of the classification has to be established. This scale is used to value the different options for each of the different criteria. Possible is an ordinal (for example low, medium, high) or a metric scale. Mixed types are possible too, depending on the criteria. The classification works as if a question for each criterion would be answered (e.g., “What is the effort to apply this method?”, “Are the results of the method easy to understand and arguable?”) based on the defined scale for the criterion (Table 1).

**Table 1:** Classification of methods for evaluating investment support in a multi-criteria analysis

	Gross Effects	Net Effects	Efforts Required / Data Availability	Arguability	Recommendations
Cause and Effect Chains	considered	considered	low	easy	unspecific
Indicators	explicit	not considered	medium	easy	unspecific
Case Studies / Questioning	partly explicit	partly, medium degree	medium	medium	specific
With-Without Comparison	implicit	partly, medium degree	high	difficult	specific
Econometric Model	implicit	partly, high degree	very high	difficult	specific

Source: Own presentation.

If the aim of the analysis is to get an integrated assessment over the different criteria, it would be necessary to aggregate the single valuations. The aggregation can be done by using a quantitative scale and by weighting the criteria. The weights are representing the importance of a criterion in comparison to the other criteria applied. A rule of aggregation (summation for example) has to be determined, too.

Besides the assessment of the contribution of every single alternative to every criteria, weighting the criterias is one of the crucial points. In the process of a carrying out of a multi-criteria analysis the choice of the criteria and their weights should be discussed by the decision-maker.

Table 2 shows the results of a simple approach of a multi-criteria analysis for the comparison of the evaluation methods for investment support presented in the previous chapter. In this case the result shows that it is most advisable to conduct questionings, field surveys, interviews and case studies. However, other evaluators may have different opinions on the appropriate weights of the different criteria and on the classification of the different options. This leads to a problem of a multi-criteria analysis. It is subjective to a certain degree. However every decision is based on subjective valuations with regard to a broad scale of decision criteria (with very different dimensions). The main advantage of a multi-criteria-analysis is to disclose the subjective assessment and to make the valuations discussable (transparency). Hence a multi-criteria analysis is a perfect basis to discuss the selection of one among a number of options due to its clear structure, consistency and transparency. Furthermore, applying a multi-criteria analysis helps to reach fast decisions.

**Table 2:** Results of a multi-criteria analysis to identify appropriate methods for the evaluation of investment support

	Gross Effects	Net Effects	Efforts Required / Data Availability	Arguability	Recommen- dations	Sum
Weight	0.15	0.25	0.2	0.1	0.2	0.9
Cause and Effect Chains	0	1	3	3	1	1.5
Indicators	3	0	2	3	0	1.35
Case Studies / Questioning	2	2	2	2	2	1.8
With-Without Comparison	1	2	1	1	1	1.15
Econometric Model	1	3	0	1	1	1.2

Source: Own presentation.

It must again be mentioned that the comparison of different evaluation methods is only a simple example for the functionality of a multi-criteria-analysis. In practice the method is far more elaborate and has to be accompanied by the discussion of the assessment.

The subject of this paper was a brief introduction and discussion of the most frequently used methods for the evaluation of investment grants. Several methods, which differ in terms of data demands, efforts required to apply them but also in terms of the quality of

their results, are available and used. Different methods are applicable for different subjects of evaluation, and especially for different extents of evaluation. As no method is suitable to support all needs and problems of an evaluation of investment grants, the appropriate one has to be found for every special case. The tables above can help to find an appropriate method by regarding the needs of the evaluation in a systematic manner.

One essential minimum requirement of an sufficient evaluation of investment supports is the assessment of net effects. Normally an advanced method should be used here to create specific evidence for the given case. At least, net effects must be considered by the reflection of studies and evaluations and a qualitative discussion. If only gross effects are taken into account, the impacts of investment support measures are overestimated in general.

In practice, restricted resources often lead to a combination of basic methods and a more comprehensive approach. The easier methods enable an overview of output and results of the support, whereas the more complex methods should be applied to consider the net effects. In total this should produce a good basis for determining the impacts of investment support schemes as the baseline for recommendations regarding the future design of the evaluated investment support scheme.

A minimum standard of an evaluation scheme should cover the exploitation of the monitoring systems in order to calculate indicators. Further it is essential to discuss the cause and effect chains for the specific case based on economic theory. Additionally to the theoretic analysis of the support measure and its impacts this could be the basis to develop hypotheses for the evaluation. One possibility to get more reliable and detailed data and information is to conduct surveys and case studies among beneficiaries and interviews among experts. This questioning will establish a baseline for more in-depth analyses of specific cases of assistance and may lead to an estimation of the windfall gains as a prerequisite to determine the net effects.

# **Programme Evaluation of Rural Development Plans – Purpose, Approaches and Exemplary Results**

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## **1 Introduction**

Since the reform of the EU Structural Funds in 1988, evaluation of development programs co-financed with EU funding are required under EU regulations. During the 1990s, the importance of the evaluation of public funded programmes has systematically increased (Eser, 2001, p. 327). In the course of the Agenda 2000, the programming and evaluation approach was introduced for Rural Development Plans (RDP), the outlines of the so-called “second pillar” of agricultural policy.

Foregone evaluations, i.e., regarding Objective 5a-programs or agri-environmental measures, had provided extremely divergent results. For achieving a minimum degree of homogenisation, the European Commission (EU-Com) released an evaluation framework for RDP based upon common evaluation questions (EU-Com, 2000a). The common evaluation questions consist of two main parts – chapter-specific and cross-cutting questions. Chapter-specific evaluation questions serve as a framework to analyse effects of individual measures of the RDP. Cross-cutting questions are meant to aggregate the most relevant effects of individual measures at programme level. This is done in the programme evaluation of RDPs, to which this contribution refers.

In this paper the approach of aggregating programme effects and the difficulties encountered herein is presented. The presented results are derived from the Update of the Mid-Term evaluation for the RDP of the German federal state North Rhine-Westphalia (Fährmann et al., 2005). The evaluation was carried out by the Institute of Rural Studies of the German Federal Agricultural Research Centre (FAL) in co-operation with the Institute of Economics of the German Federal Research Centre for Forestry (BFH) and the Working Group for Environmental and Urban Planning (ARUM).

## **2 Purpose and structure of the programme evaluation**

The goals of the programme evaluation are diverse and vary according to the stage of the programme (ex ante, mid-term, ex post). The evaluation of EU programmes is situated in

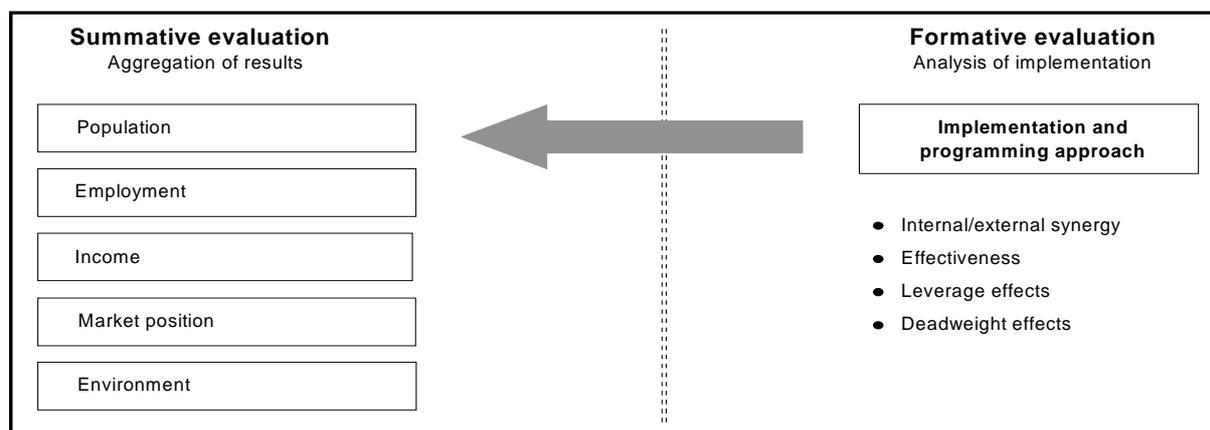
the crossfire between outward obligations, e.g., to give account about programme impacts (summative evaluation), and the identification of improvement possibilities of the programme implementation (formative evaluation) (Eser, 2001, p. 335).

The purposes of programme evaluation, as set out by the EU-Com (EU-Com, 2002, p. 5), imply dominance of summative aspects. In this respect, programme evaluation is meant to

- clarify the added value of the programming approach,
- estimate the extent of indirect beneficiaries of the programme,
- analyse intended and unintended side effects of programme measures and
- summarise the main programme effects.

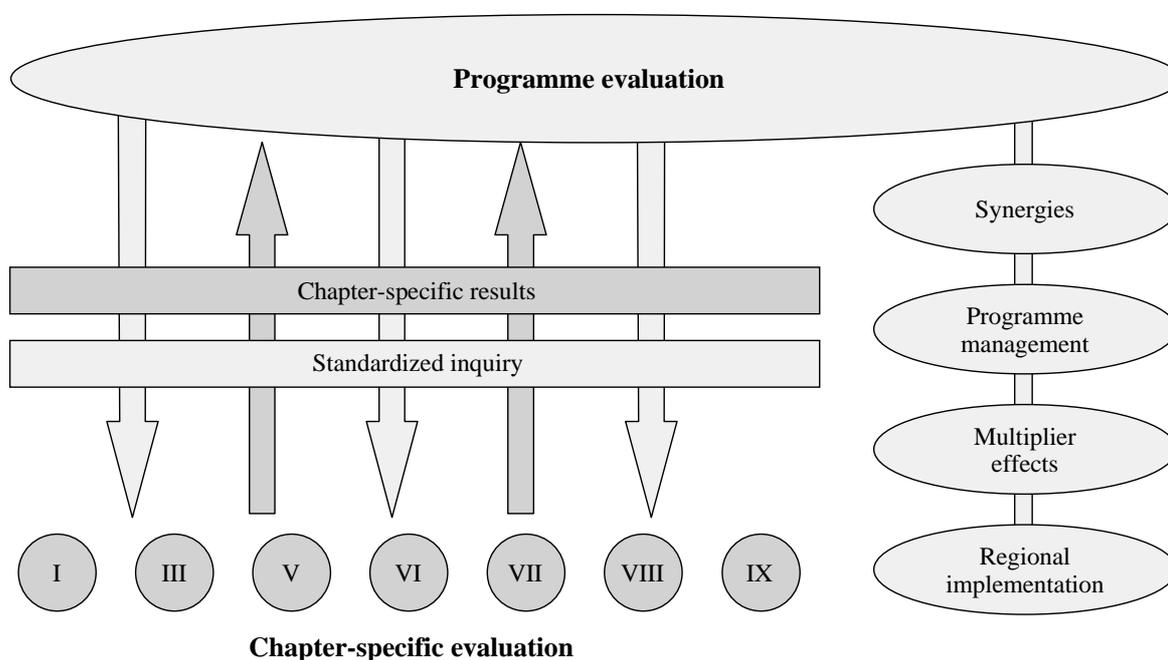
These aspects of the programme evaluation are encompassed in the so called cross-cutting questions (EU-Com, 2000a). The cross-cutting questions comprise five thematic questions, which focus on the aggregated effects of the RDPs, such as effects on employment, income and the environment. A further sixth cross-cutting question deals with the administrative implementation of the RDP. Here, synergies among measures within and outside the RDP, leverage effects of public support and obstacles in the implementation of the programme are encompassed (see Figure 1).

**Figure 1:** Content of cross-cutting questions



Source: Own concept.

Figure 2 illustrates the interrelation between chapter-specific and programme evaluation. The results of the chapter specific evaluation are a major source of information for answering cross-cutting questions. The cross-cutting evaluation team defined standardised checklists and result sheets to be filled by chapter evaluators. Aspects of programme management such as finance and funding, the regional implementation of the RDP, synergy and multiplier effects were predominantly analysed by the cross-cutting team.

**Figure 2:** Organisation of programme evaluation

Source: Own concept.

### 3 Methods

The methods and results presented in this chapter refer to the analysis of the added value of the programming approach and the aggregation of main programme effects.

#### *Added value of the programming approach*

The added value of the programming approach is evaluated by analysing the programming strategy, synergy effects between single measures of the RDP and the programme implementation. The first step included the analysis of the programming strategy and of expected internal synergies, as they are stated in the programming document. In a second step, chapter evaluators are asked to report actually observed synergies. Information about the programme implementation is derived from semi-structured interviews with programming authorities and written questionnaires filled in by final beneficiaries.

#### *Aggregation of main programme effects*

The programme effects of the RDP are analysed in the context of the five thematic cross-cutting questions (see Figure 1). The main task is to measure programme impacts and to relate them to the targets set of the RDP. The aggregation of programme effects usually

involves a range of difficulties, e.g., because of different units of measurements and the lack of quantified targets – the reference to which achieved effects are related.

The impact flow analysis (ECOTEC, 1998; IfS, 2000) is a methodological approach to aggregate and compare programme effects on a monetary basis. With reference to the five thematic cross-cutting questions, the effectiveness of rural development measures are classified ordinarily and weighted with planned and committed funds of the measures. This type of impact assessment illustrates the relative monetary importance and achievement of measures in the context of the RDP. The results of impact flow analysis reveal the achieved effects and help to illustrate the often inadequately described system of set targets at the programme level. One disadvantage of this method is its simplifying character. Assumptions are for instance, that one Euro of funding had exactly the same effect in all types of measures. Therefore, the results are to be understood as tendencies or a possible range for impacts.

## **4 Results of the update of the mid-term evaluation at the programme level**

### **4.1 Added value of the programming approach**

An added value of the programming approach is mainly achieved through two aspects:

- a coherent and consistent programme strategy, which includes clear and quantified objectives and corresponding measures and
- synergy effects between rural development measures.

The analysis of the programming documents revealed that the **programme strategy** is inadequately linked to the regional development needs detected in the strengths-weaknesses-analysis. The lack of operational and quantified targets at the programme level makes it difficult to assess the contribution of the RDP and individual measures to the changes observed in rural areas. It was frequently observed that set programme objectives were not underpinned with measures with a realistic potential to generate the envisaged effects, or that objectives on a measure specific level were conflicting with each other. One example is the farm investment scheme: its primary intention, to improve the competitiveness of the farm sector, is in most cases contradicted by the additionally stated employment objectives.

The reason for the lacking consistency of the RDP is that the programming process was not steered from the programme level but from the individual measure level. Under consideration of specific interests of involved political actors, departments and ministries,

goals are developed and set from bottom up: from project, via measure, up to programme level (Schubert, 2002). However, during the course of programme implementation and in the ongoing programming phase for 2007 to 2013, the programming approach has led to increased discussion and consulting among authorities involved in the process.

“Synergy occurs when several actions together produce an effect that is greater than the sum of effects than they would produce alone (EU-Com, 2000b, p. 146).” The focus of the update of the mid-term evaluation was on the estimation of internal synergy effects between different rural development measures.

Figure 3 shows that synergies among programme measures are of a minor importance. Most synergies are of low relevance and occur between measures within one thematic axis, especially between measures focusing on agri-environmental aspects. Observed synergies differ significantly in respect to their number, relevance and intensity from expected synergies as they are stated in the programming document.

**Figure 3:** Internal synergy effects among measures of the RDP

		I: Competitive Agriculture			II: Rural Development							III: Agri-environment							
		Farm investment	Vocational training	Processing & marketing	Land consolidation	Farm management services	Village renewal	Off-farm diversification	Agricultural infrastructure	Regional management	Farm management systems	Less favoured areas	Natura 2000 areas	Production integrated agri-environment measures	Site specific agri-environment measures	Afforestation	Forestry measures	Model projects	
I: Competitive Agriculture	Farm investment			2				1				?							
	Vocational training	1-2						1						1/?	?				
	Processing & marketing	?/1												?					
II: Rural Development	Land consolidation						2					?			2?		?		
	Farm management services	?																	
	Village renewal							1											
	Off-farm diversification	1					1							1 <sup>1</sup>					
	Agricultural infrastructure																		
	Regional management																		
	Farm management systems																		
III: Agri-environment	Less favoured areas													2/?	2/?	-1			
	Natura 2000 areas													1 <sup>2</sup>					
	Production integrated agri-environment measures							1 <sup>3</sup>					2		1				
	Site specific agri-environment measures													2					
	Afforestation													?	?				
	Forestry measures															1			
	Model projects			?		?								2	2				
		Effect from																	Effect on
Legend: 2 = significant positive synergy effects, 1 = positive synergy effects of low relevance, '' = no synergy effects -2 = significant negative synergy effects, -1 = negative synergy effects of low relevance, ? = synergy are not investigated in detail <sup>1</sup> = Organic farming, <sup>2</sup> = Low intensive management																			

Source: Own concept.

Negative synergies arise partly between the less favoured areas and the afforestation scheme. Afforestation tends to take place on agricultural sites with low production potential. These sites are also supported through the less favoured areas scheme with the objective of keeping the land in agricultural use. There have been cases where farmers first received public support for maintaining agricultural land use and later on for the afforestation of the same plot of land. This contradictory relationship seems to partly hold true for the afforestation and the low intensive grassland management scheme, whereas this relation is not proven yet.

One precondition for a positive synergy between the vocational training and the farm investment scheme is that farmers take part in both schemes. This is the case in about 10 % of participants of vocational training. Whether this “double-participation” of farmers or family members in both schemes leads to a surplus-effect is left to the chance. The majority of detected synergies were of a strategic manner as they were planned in support directives.

### ***Conclusion***

The introduction of the programming approach led to a better perception of the policy field, which enables an outside “marketing”. The programming approach also led to an increased communication between involved authorities. However, major problems still remain to be tackled. Since the history of the evolvement of the policy field can not be neglected, the RDP is rather a compilation of measures than a consistent programme with an underlying strategy and operational objectives.

## **4.2 Aggregation of main programme effects**

A qualitative assessment of the achieved programme effects is accomplished by applying the impact flow analysis (see Chapter 3). Figure 4 illustrates the outcome of the impact flow analysis on programme level in North Rhine-Westphalia for the period 2000 to 2004.

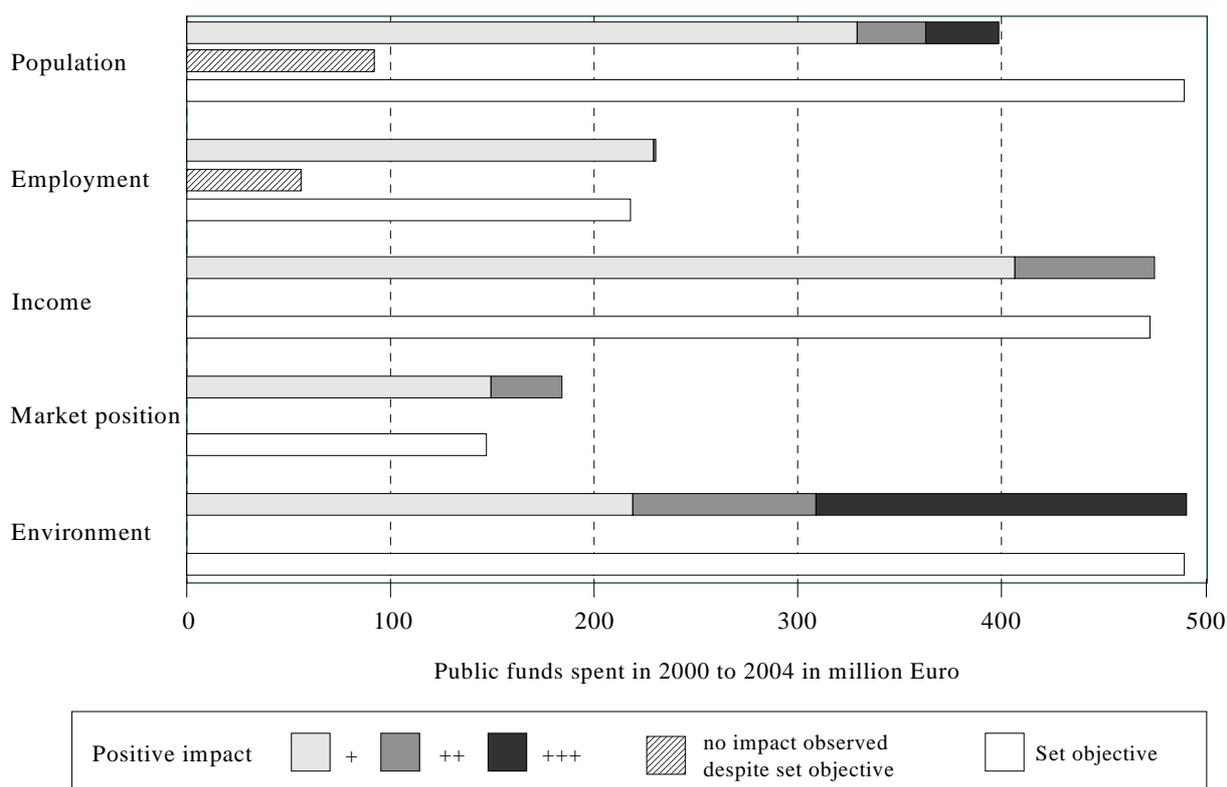
The first step involves the quantification of envisaged programme targets. Since set programme targets were missing in the programming document<sup>1</sup>, we applied this method to illustrate the relevance of objectives on programme level. As can be seen from Figure 4 (white bar), the RDP sets priorities with respect to the improvement of living condition of rural population, income effects and the improvement of the environment. About 95 % of

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<sup>1</sup> The quantification weighting of programme targets should have been accomplished during the programming or at least in the ex ante evaluation.

the budget spent in the RDP between 2000 and 2004<sup>2</sup> was indicated for measures which aim simultaneously to improve living and environmental conditions in rural areas as well as incomes. The creation of employment and of better market conditions for agricultural products has a reduced priority on programme level.

**Figure 4:** Set objectives and positive programme impacts weighed with public funds committed between 2000 and 2004 in North Rhine-Westphalia



Source: Fährmann et al. (2005).

This related directly to the elaboration of achieved effects as illustrated in coloured bars in Figure 4. The striped bars depict the amount of funds spent for measures which failed to generate the envisaged objectives. Grey and black coloured bars indicate the amount of funds allotted to high (+++) or moderate (+) effective measures. The judgement, whether a measure is effective with respect to the set objective is based upon the measure-specific evaluation.

<sup>2</sup> About 500 million Euro

The following aspects are worthy of mention:

- The dominant effects of the RDP, measured in monetary terms, are the improvement of environmental situation, mainly through agri-environment (+++) and forestry measures (++). Only farm households benefited from measures aiming at the improvement of incomes through various the compensatory allowances (Less favoured areas, Natura 2000, agri-environment measures) as well as through the farm investment scheme and other measures.
- Most measures financed under RDP only have a low capacity (+) to achieve set objectives. This holds especially for funds spent with respect to effects on employment, income and market position. About half of the funds spent with respect to environmental objectives have a high to very high effectiveness.
- Funds allotted to employment generating measures have the largest rate of failure to meet the set objective.

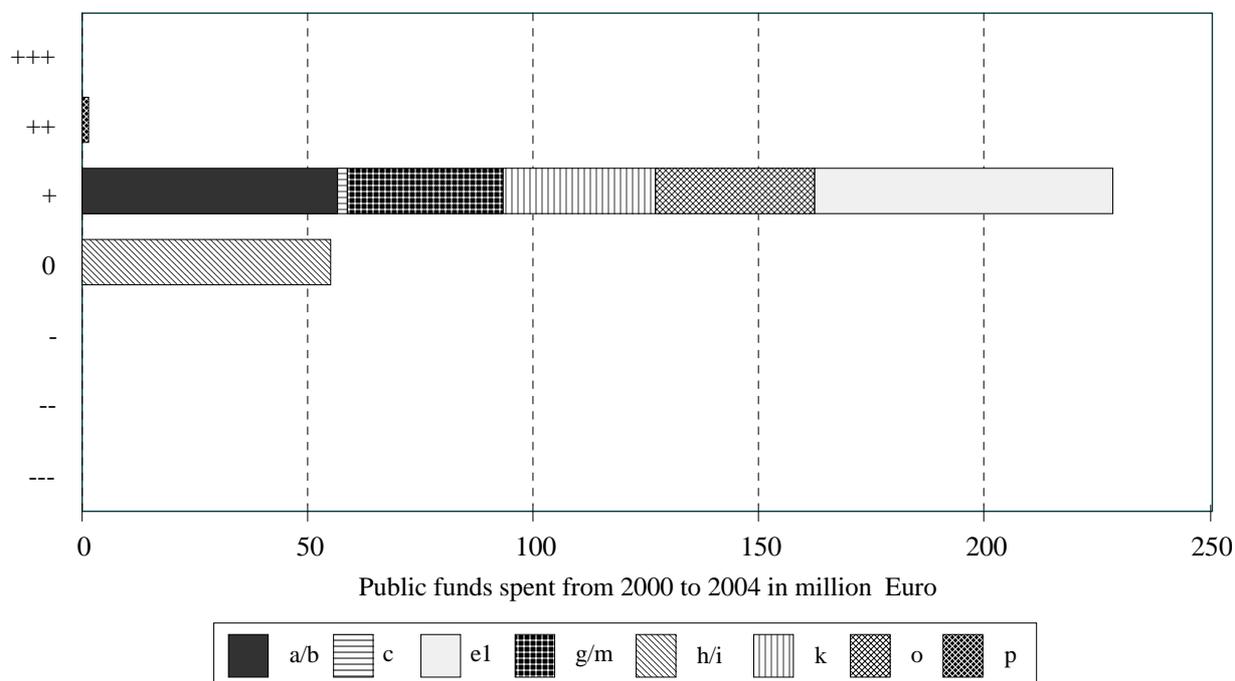
The achievement of objectives at the programme level is elaborated in more detail for each of the five-thematic cross-cutting questions. This is illustrated by using the example of employment effects (Figure 5). Only one of the eleven supported measures with an employment objective – support for farms for off-farm diversification (p) - have a high impact on the creation and maintenance of jobs in rural areas. These rather new diversification measures still have an innovative character and a small financial budget. A further characteristic of this measure is that it focuses to non-farming activities in rural areas.

The majority of supported measures with an employment objective are moderately effective in respect to the creation and maintenance of jobs. With the exemption of the support for village renewal (o), all measures support activities within the primary sector. These “mainstream” measures have a large budget and are in place for more than 10 years. Examples are the farm investment/young farmers scheme (a/b), the compensatory allowance for less favoured areas (e) and support for agri-environment measures (f1). The stated employment impacts of supported measures need a further qualification with regard to the

- Farm investment/young farmers scheme: Since it was not possible to calculate net effects, only gross effects are taken into account. If net effects were analysed, too, the moderate positive impact on employment would probably turn to the negative.
- Compensatory allowance for less favoured areas and agri-environment measures: Analysed employment effects have a rather temporary character, since the funds compensate the income foregone because of various reasons. If the funding is stopped, also the impact associated with the measures will vanish.

Funds supporting activities in the forestry (h/i) sector did not lead to positive employment effects, although it was a set objective of the measures.

**Figure 5:** Positive programme impacts weighted by funds spent from 2000 to 2004 (Bundesland North Rhine-Westphalia)



Legend : a/b: Farm investment/Young farmers scheme, c: Vocational training, e1: Compensatory allowance for less favoured areas, g/m: Marketing & processing, h/i: Forestry scheme, k: Land consolidation, o: Village renewal, p: off farm diversification for farmers

Source: Fährmann et al. (2005).

## Conclusions

The programme objectives set in the RDP of North Rhine-Westphalia are well underpinned with measures which have the clear capacity to contribute to set objectives. However, the very moderate and to a large extent only temporary income and employment effects of supported measures provokes the question, whether the strong sectoral focus of the RDP of North Rhine-Westphalia is an appropriate means to improve the socio-economic situation in rural areas. On the contrary, measures supporting activities outside the primary sector perform best regarding the improvement of incomes and employment.

## 5 Strengths and weaknesses of the programme evaluation

The evaluation of RDP on the programme level enables a qualitative overview over main programme effects, which can be underpinned with quantitative results from chapter-specific evaluations. This provides information for a transparent discussion regarding the strategic orientation of the programme and the balance of objectives on programme level. In the programme evaluation, measure-specific objectives and programme objectives are

linked and checked for consistency by analysing, for example, whether programme objectives are underpinned with adequate measures.

The most remarkable weaknesses of the programme evaluation are that results on programme level cannot be more precise than the results of the chapter-specific evaluation. If a causal link between the observed trend and the support is weak on the measure level it remains weak on the programme level. The probability of overestimation of effects increases at programme level, because usually the gross effects and not the net effects of single measures are aggregated.

## **6 Consequences for the programme evaluation 2007 to 2013 and further programming**

The approach to guide the (programme) evaluation procedure by common evaluation questions is plausible with regard to the anticipated standardisation of evaluation results. However, the common evaluation questions and criteria do not always reflect the most relevant questions for the evaluation of a RDP for a certain region. Therefore we suggest that evaluation questions for the programme evaluation should be deduced from the individual programme strategy. In order to be able to make clear recommendations, an in-depth analysis of a few aspects is more beneficial than a broad and less focused research design. In this way interregional and thematic evaluation studies could help, for example, to identify best practice examples throughout regions.

The chapter-specific questions represent a micro-economic approach to the impact evaluation of rural development measures. According to the EU-COM (2000b), net-effects aggregated from the micro-level shall be related to macro-economic trends for the purpose of estimating the contribution of RDPs to macro-economic changes. This approach lacks consistency, since macro-economic effects can only be analysed by applying macro-economic methods. This in turn is hardly possible for RDPs, since the financial impact of RDPs is too small and diverse to model macro-economic effects. Thus, macro-economic indicators, such as the change of the Gross Domestic Product, are not adequate indicators to measure the impact of RDPs.

As we learned from previous evaluations, quantitative data are the basis for evaluating RDPs. However, without qualitative research, we are not able to understand the way supported measures affect their environment and why beneficiaries participate. Hence, qualitative research will remain a key means of evaluation of RDPs, and its application in the context of evaluation needs further methodological elaboration.

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# **Agri-Finance – Lost without Support?**

Carel Gosselink

Rabobank

The Netherlands

## **1 Introduction**

This paper deals with agri-finance from the perspective of an internationally acting Dutch bank. This bank, the Rabobank Group, covers about 85 % of the agriculture and food industries market in the Netherlands and is engaged in 35 other countries. For a start, some facts and key figures on the Rabobank Group will be presented. A short overview on the past decades of agricultural development and policy in the Netherlands follows. Finally, a comparison between the national agricultural investment support schemes in Germany and the Netherlands and an outlook to the future agri-finance will be given.

## **2 Introducing Rabobank**

The Rabobank Group, a Dutch based financial institution, comprises 220 local member banks and serves about 9 million customers in the Netherlands. Worldwide it maintains more than 250 offices in 35 countries. Originally the bank was founded in the Netherlands in 1890 as a finance cooperative by enterprising people who had virtually no access to the capital market. Based on its cooperative principles, it is inspired and guided by its 1.75 million members who use and have an interest in its financial services.

The main objectives of the Rabobank Group are as follows:

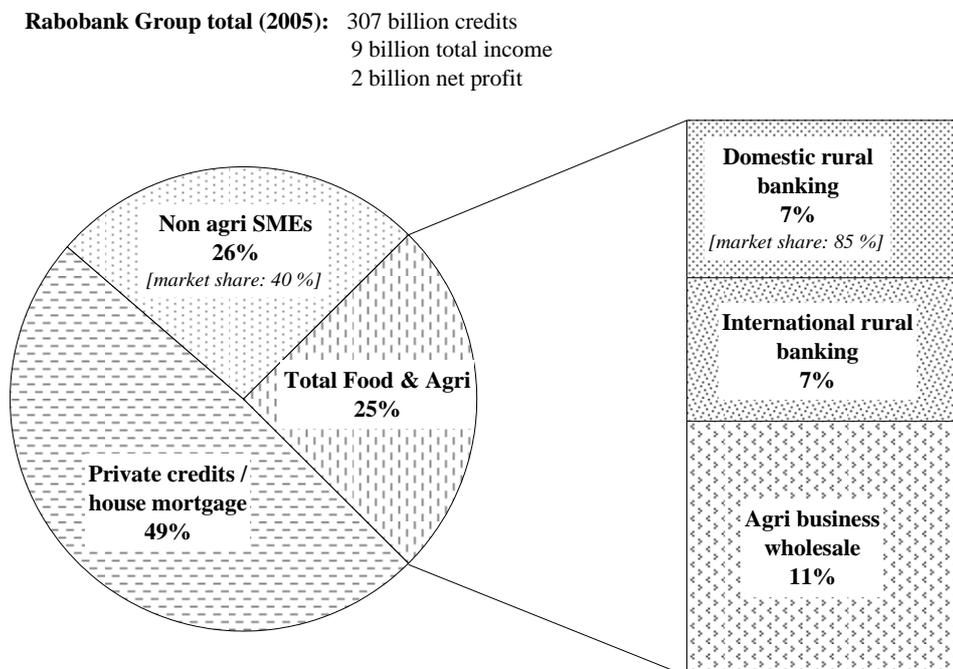
- The market leadership in the Netherlands shall be strengthened.
  - (1) This shall be reached by continuing to focus on the customers' needs.
  - (2) Following the all-finance concept, the Group will continue offering banking, insurance and investment.
- The market position shall be strengthened to become global Number 1 in food & agricultural market financing:
  - (1) This is based on a network for Dutch corporations in 35 countries.
  - (2) Domestic retail banking is offered in selective countries (rural banking).

- The Rabobank Group is committed to remaining a most sustainable, socially and environmentally involved bank:
  - (1) Sustainability is assured by the external financial rate of triple A and the (internal) triple P (profit, people, planet) code.
  - (2) The social and environmental objectives become concrete with initiatives like the Rabobank Development Program, Green Bank and Innovation Award.

### 3 Agri-finance in the Netherlands

The total credit portfolio of the Rabobank Group amounts to 307 billion € in the year 2005 (see Figure 1). With this volume it is – from a global perspective – about half the size of the largest international banks. Rabobank is a dominant creditor in the Netherlands with a market share of 85 % in domestic rural banking and 40 % in the provision of small and medium sized enterprises (SMEs). Rabobank's international rural banking extends primarily in the USA, Australia and New Zealand, and already reaches a credit volume of 20 billion € which nearly measures up to domestic rural banking. The total food & agricultural division and the non agricultural small and medium enterprises are almost comparable in volume. Private credits make up about half of the total credit portfolio.

**Figure 1:** Credit portfolio and results of Rabobank Group (2005)



Source: Rabobank

Because of size deficits, Rabobank's generic strategy is focussed on being a niche player, in our case the Food & Agribusiness. This segment has opportunities if you have specific knowledge of markets, processes and products. We see the global agri-market (food) as growing and becoming more capitalized.

### ***Risk adjusting pricing***

When customers address the Rabobank in order to receive financing, they are regularly asked four basic questions: Who are you? What are your plans? How are you going to pay us back? What is the ultimate source of cash?

The credit risk of the bank equates the probability of default multiplied by the amount of credit. This can be assessed by

- the capacity and quality of the farm and the farmer's management quality (business risks)
- the conditions in the relevant and neighbouring markets (market and price risks); the return on investment is in agricultural projects usually lower than in other sectors; therefore farmers will often not be able to afford the higher interest if their project is rated as high-risk-investment,
- the cash flow and solvency situation of the farm (financial risks); it is especially the long-term character of the investment projects, which makes it difficult to find investors from outside and
- amount of collateral and commitment (obligo):
  - (1) With respect to material collateral the bank's attitude has undergone a change. Since the value of farms is low when they are sold nowadays, the probability of default is valued higher.
  - (2) The amount of debt of farms in the Netherlands went up significantly in the last twenty years. This was also due to a change of farmers' attitudes toward debt, which was in many regions initialised by farm investment support

Because the amount of collateral diminishes, government securities (see Chapter 4) increase in importance. The results of the cash flow analysis are crucial for the assessment of the default probabilities. This is due to the finding that the price of the production means (esp. land, buildings) are linked to the profitability of the business and are therefore cyclic. So in the downturn of the cycle, the value of a farm decreases and vice versa. Accordingly, when prices are bad and the value of the farm reduces, the loan to value rate is broken and a farmer has to repay his loan faster. That doesn't work. Hence, for long term financing we focus on the average (long term) cash flow instead of the current cash flow.

However, compared with other businesses, the bank's financial risk with crediting farms can be assessed as low to medium, depending on the region and the farm type.

## 4 National investment support

### *Different stages of investment support since 1970*

When agricultural policy and public intervention are traced back it becomes obvious that in **the 1970s** the main objective was to increase (labour) productivity. The reason for this was that labour was the scarcest production factor. Those days farmers were not used to having debt. Hence in order to raise labour-productivity, a more capital-intensive form of production had to be induced. Therefore the Dutch government offered capital support of up to 40 % subsidy equivalent. The main instruments were:

- long-term interest refund,
- one-time grant (investment discount) in development areas and
- governmental securities to support agri-finance.

This capital support was accompanied by a land consolidation program to improve rural infrastructure. Additionally, research, education and advisory were markedly strengthened. One undesired side-effect of raising capital intensity was that as values of farms rose, difficulties in the take-over of farms increased.

During the **Eighties**, quotas and subsidised exports led to the rejection of the goal of higher production on the policy level. Therefore more emphasis was placed on quality via investment discounts (25 %) for quality increasing investments. Young farmers were eligible up to a certain level and received additional support. Diversifications in production got extra assistance as well. The profitability of farming and the associated demand for land led to a considerable increase in land prices.

The **Nineties** experienced an orientation towards the support of environmental and animal welfare investments for which a one-time grant of up to 20 % was offered by the state. Special attention was paid to organic farming, whereas farm expansion was no longer supported. This was a response to serious environmental difficulties in the Netherlands like nitrate or phosphate in the ground water as a result of high animal density.

**Currently**, emphasis in agricultural policy is placed on innovation and natural protection. This is supported by:

- one-time grants of up to 20 % for innovative investments,
- price support for 'green energy',

- fixed support (lump sum) for nature consolidation and
- restriction of support for investments with disadvantages for the environment and animals.

Support for investments in general is not offered any more. However state guarantees still exists on a fairly low level (max. 0.5 billion €) to enable farms access to finance. The financial volume of farm investment support has been dramatically reduced during this time.

### ***Comparison with national investment support in Germany***

The current German investment support schemes are much better endowed financially than the Dutch ones. Furthermore the German investment support is:

- more intensively measured in subsidy equivalents,
- less focused: i.e., even though there is a special top up of the support for environmental, animal welfare and diversification investments, nearly every new barn can nonetheless be supported and
- more diversified, i.e., there are more instruments of support like interest refunds, one-time grants, governmental loan guarantee and extra support, e.g., for young farmers or the compliance with animal welfare conditions.

The German approach to assist farm investments seems to be broadly comparable with the intervention scheme in the Netherlands one or two decades ago.

### ***Assessment of state interventions***

One major feature of Dutch agricultural policy has always been the consequent striving for priority goals. The first strategic initiative of the state in the Seventies to make access to credit easier changed the attitude of farmers towards using credits more frequently to carry out more investments. This way the farmers learned to handle loans and farm growth was enhanced.

However, experience with state intervention in the capital market shows unintended side effects like increasing factor prices (land, buildings and machinery). This leads to market disturbances and influences the competitiveness of the farms. Hence the market seems to be more reliable than governments, which often abruptly change their intervention priorities. Ultimately, intervention programmes tend to protect weaker enterprises and therefore are likely to reduce the competitiveness of the sector as a whole. Hence it is recommendable to leave supply and demand of investment goods to the market in order to improve competitiveness.

## 5 Future of agri-finance

In general, the Rabobank identified a trend towards more liberalisation and globalisation which will lead to the following developments:

- The cost of production will be the dominant key factor of success.
- The supply of high quality products will enable the European agricultural sector to compete on the international market; low quality products can be produced more competitively in low cost countries.
- Agri-industry is likely to increase its added value by integrating more and more parts of the supply chain in order to increase their added value. This concerns manufacturing, processing, packaging and marketing of farm commodities. Even the production units may become part of the industries' value added chain.
- Local agricultural enterprises will establish subsidiaries in foreign countries in order to enlarge their production capacity or to secure the delivery of raw materials. An increasing number of farmers will decide to emigrate to places where production is favourable and set up costs are comparatively low.

Based on these projected developments, the Rabobank forecasts the existence of fewer, but larger, farms due to the realization of economies of scale. Further traits of future farming will be:

- a rise in high-tech production which demands high amounts of capital,
- comparatively low returns on investment – compared to other sectors – which requires long term finance and
- a development from family farms to 'corporate structures,' where a hired manager runs a farm and the capital belongs to numerous investors of various origins.

There will be intense discussion about ownership, partnership and finance. More equity and (subordinated) participation will be attracted from private investors outside the farming sector.

In this process, the Basel II accord is seen as an advantage for Rabobank since the loan requirements are more concentrated on the cash flow of (potential) debtors. First experience shows an increase of return on investment (ROI) and shorter repayment periods.

# **How to Evaluate a Measure without Goals – Considerations on the Basis of the Example of Farm Investment Support in Germany**

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## **1 Introduction**

In the guidelines for the German farm investment support measure, its goals are stated as follows: “Support of a competitive, sustainable, environmentally-friendly, animal protecting and multifunctional agriculture, which is especially to lead to a stabilisation and amelioration of agricultural income and the improvement of conditions of living, working and producing on farms.”

In the course of evaluating the measure in the first periods (Mid-Term and Update) the evaluators were expected by the contract-givers (the Länder) to answer all questions connected to these goals. In the attempt to do so the feeling evolved that these stated goals and the connected indicators have no real connection with the realisation of the measure. A big part of the evaluation work therefore could not possibly help to fulfil its main goal. This is, according to the statements of the European commission, to make an assessment of the efficiency and effectiveness of the measure.

Since the timescale for mid-term and update evaluation was rather short, and the European guidelines for evaluation were then interpreted in a narrow sense, the awareness of the stated problems remained diffuse and without consequences for proceedings and results. The papers delivered were rather a collection of answered questions and gathered indicators than a judgement on a political measure.

Since in the ex post evaluation time is not as scarce and the interpretation of the evaluation guidelines is in general less strict now, the diffuse feeling about unreasonable goals could be substantiated in the course of the actual evaluation. In the following sections the principal knowledge obtained during this process will be laid down. Not all of the above-stated goals will be discussed but some of them will be used as paradigmatic examples in order to illustrate the procedure.

## 2 The diagnosis of lacking goals

### 2.1 Theoretic preparation

It is only possible to evaluate a measure if the assumption holds that the measure has been implemented in a goal-oriented way. A goal describes a desired state of the world (CFAI, 2006), and since an action is taken to reach this state, it has to be proposed that in the initial situation a deviation of this state exists. This deviation will be called the “problem” to which the decision-maker reacts by enacting the measure.

In order to analyse the coherence of such intervention logic, it is important to distinguish possible goals:

- At the top of a system of goals there is a supergoal. This is a goal with intrinsic<sup>1</sup> value (CFAI, 2006).
- A subgoal is a goal that has no intrinsic value. It is valuable in so far as it is a step on the way toward reaching some supergoal.
- There might be many hierarchical subgoals on the way to a supergoal.
  - (1) Each of these subgoals might be a higher-ordered parent goal and at the same time a child goal to another higher ordered parent goal on the way to the supergoal.
  - (2) One subgoal might be a subgoal for many supergoals, but
  - (3) the subgoal of one supergoal might also be in conflict with another supergoal.

In order to make a judgement on intervention logic apart from the goal system, the attributes of the measure and of the problem are to be considered as well. The following aspects have to be judged in order to complete tasks:

- the principal validity of a goal as a supergoal,
- the adequacy of a measure for a stated problem/goal,
- the logical, theoretical and practical consistency of the goal system (Brösse, 1972) and
- whether a measure is implemented in a goal-oriented way.

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<sup>1</sup> I.e., the value of the goal lies in the goal itself. A healthy environment for example is judged as valuable in our society. It has therefore an intrinsic value.

Since an analysis of goals is a prerequisite for the empirical analysis rather than a possible result<sup>2</sup>, argumentation will have to be conducted on a higher-ranking theoretical level of argumentation, i.e., without access to empirical data. Except for the first point (principal validity) the existence of a widely accepted theory on the facts to be analysed is premise for the judgement.

It is to be stated that the lack of an unambiguous theory, and even more the lack of a theory, can not be overcome by evaluation. One example is the lack of an accepted theory of structural change in the agricultural sector. Since there is no such theory, there is no way of stating a well-founded hypothesis about the effect of the investment aid on structural change.<sup>3</sup> The adequacy of the measure for the purpose of influencing structural change, as well as the measure's inner consistency and its implementation, can therefore hardly be judged in advance. At the same time it is clearly far beyond the possibilities of evaluation work to compensate for the lack of an adequate theory on an empirical basis. Despite this dilemma, even in this case a clear sentence can be passed: an intervention that is based on a non-existing theory can hardly be implemented in an efficient way and possible positive effects are only achieved by chance.

In the following sections an example will be given for each of the aspect to be considered from the evaluation of the interventional logic of agrarian investment aid.

### **2.1.1 Principal validity of a goal as a supergoal**

Whether a goal is accepted as a supergoal for political interventions by a society depends on the basic rules the society has accepted as valid. The German system is called a "social market economy".

Two basic assumptions of this system were used in the rejection of goals of the investment aid as valid supergoals:

1. In a market economy the state is, in regular cases, not supposed to intervene in the market-sphere. Such interventions could only be justified by severe dysfunctions of the market.
  - This leads to the rejection of the aim "strengthening competitiveness". This goal is mainly to be reached by meliorating the creation of value and rationalisation

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<sup>2</sup> That is why the analysis of the goal system and the interventional logic is in principal supposed to be part of Ex-ante-Evaluations. For reasons which could only be speculated on at this time this task has not been fulfilled satisfactorily in Germany.

<sup>3</sup> Except in extreme cases such as subsidising only the farms with the very best or worst performance.

(cost saving). If a functioning capital market exists, it is not obvious why profitable investments should be subsidised. Severe dysfunctions of the capital market have not been detected.

2. The fundamental assumption exists that no social group should be treated differently by the state than another.
  - That leads to our rejection of the goal of amelioration of farmers' income as a supergoal (while it might still possibly serve as a subgoal, see below). For farmers as for all other social groups a social security system exists.

While in these cases the reasoning seems to be straightforward, many cases might not be as clear-cut. Since these judgements have to be viewed as value judgements only a discussion process in society or among its representatives can decide about the justification of supergoals. Sometimes these discussions might be prevented by obscuring questionable goals by formulating multiple and generally accepted objectives. This is a first hint to the solution of the paradox of the existence of multiple goals on measures that lack any goals.

### **2.1.2 Adequacy of a measure for a stated goal**

Since adequacy is a term that could be interpreted extensively we have to keep in mind that at this point of the analysis we are supposed to argue on a theoretical level (see above). Therefore a preliminary judgement can not be based on efficiency and effectiveness, which have to be evaluated on an empirical basis, but only on principal considerations on the adequacy.

This principal assessment is to be done under consideration of the characteristics of the problem to be cured and the measure itself. It is to be based on established theories of causes and effects in the system under consideration. Since different schools of economics exist, a judgement about the adequacy of a measure based on assumptions of one school might not hold true if viewed on basis of theories of another economic school. A well-known example is the different judgement on the role the state has to play in order to help an economy to recover from a depression. While Keynes proposes anti-cyclical state interventions, his opponents deny this possibility on the basis of neoclassical assumptions. Therefore it is especially important to lay open the basis of the judgement and to state possibly contrasting views that might relativise the first judgement.

In the evaluation of the adequacy of the measure with respect to the stated goals some basic assumption of normative theory of economic policy are used:

1. It is widely accepted that one intervention at one place often brings the necessity for another intervention at another place with the danger of creating a never-ending

process. The preferable cure for unwanted effects of interventions is therefore a reduction of interventions rather than an expanse.

- This leads to our rejection of the argument that severe disruptions of the agricultural markets by political interventions<sup>4</sup> and the created uncertainty justify the subsidisation of investments in order to strengthen competitiveness. Besides, the subsidies should then be concentrated on those who are affected by the changes and restricted for the time of change. A continuous and undifferentiated general subsidising of investments could not be justified.
2. Interventions should, in their way of affecting social reality, be adapted to the kind of problem they cure: while temporary problems that affect special groups can be cured by measures that are to be used selectively and occasionally, persistent problems that affect all should be cured by constant measures that reach all affected people in order to minimise transaction costs and guarantee reliability.
- This leads to the rejection of the argument that the amelioration of farmers' incomes through investment aid is a subgoal that serves the supergoals of preserving a cultural heritage, a cultural landscape, social stability, domestic production of agricultural products or maybe the improvement of living conditions in rural areas. If agriculture is not profitable in principle, and has to be subsidised generally in order to fulfil these aims, a single investment aid will not be able to create profitability.

### 2.1.3 Inner consistency of a system of goals

Measures like investment aid can have multiple goals and subgoals might be stated next to supergoals. These goal systems will be judged by questioning their logical, theoretical and practical compatibility (Brösse, 1972).

As in the judgement of adequacy the judgement of **logical consistency** necessitates the existence of a theoretical frame. It can well be that inconsistencies are not visible at first glance, but are detected by utilising a proper theoretical frame.

1. The following basic assumptions may hold true: development of competitiveness in many regions in Germany requires the growth of farms; this growth of farms is restricted by non increasable factors. And on the other hand, the mobility of factors depends on the utility of change; the increase of the utility of a factor reduces its mobility and so possible access of others.

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<sup>4</sup> This argument was brought up following our rejection of the objective of strengthening competitiveness (see above) if there are no market imperfections.

- We can deny the consistency of the goals of ameliorating the income of agricultural production in general and of strengthening the competitiveness of the agricultural sector as a whole on the basis of these assumptions.

Here we have to be very careful in our interpretation though: Our theoretical knowledge suffices to state the inconsistency of the goal of general amelioration of income of farmers and development of competitiveness for some regions. Our theoretical knowledge does not suffice for the judgement of more differentiated situations because, as stated above, we lack a sound theory of structural change in agriculture. Seemingly logical inconsistencies might often be solved by differentiated formulations or by taking into account the special circumstances as is done in judging **theoretical consistency**.

The amelioration of the income of some of the farmers, not of all, might well serve the goal of accelerating structural change. In some regions the necessary structural change does not mainly consist in the growth of farms. Again it has to be stated, that an evaluation is not able to overcome the lack of a theory. The logic and theoretical consistency of a more sophisticated goal-system on structural change can therefore not be judged.

Another example for theoretical consistency can be made up from the goals of higher competitiveness and animal-protection. In relation to cow-breeding, the building of a new stable might well serve both goals; if one considers pigs this is much less the case. The relationship of the goals depends on the individual projects.

The aspect of **practical consistency** teaches us to be even more cautious in our judgement: it can well be that the logical and theoretical consistency can be judged negatively, while practical consistency exists, usually caused by special historical developments. If, in the course of an evaluation, consistency shows up where it was not expected on the basis of existing theories though, it may be asked, on which basis the measure had been implemented. One example for a measure being based on false theoretical assumptions is the expectation that support of farmers' diversification activities might serve their mobility and accelerate structural change. Empirical observations qualified this goal by showing that a second income from the enterprise quite often stabilises agrarian production. Surely practical consistency belongs to empirical evaluation practice rather than to the preliminary judgement of the goal-system.

#### 2.1.4 Goal oriented implementation of a measure

It is almost always possible to think of some goal that might fit an existing measure. It might be that some "in fashion"-goals are taken to justify a measure that would not easily

be justified otherwise. In order to reveal such a practice, it is necessary to examine the implementation of the measure.

1. Selection of recipients of subsidies must be oriented to the stated goal.
  - If as in our case, the environmental friendliness is the declared aim but in actual selection of subsidised projects there are hardly any criteria reflecting this goal, the effectiveness with respect to the stated goal will be close to zero. On this basis the wholeheartedness of the declared goal can be denied.
2. And if aims are stated in a regulation but the measure is implemented in a way that demand is close to zero, the seriousness of the goal might well be questioned.
  - This holds true for the goal of the aim of animal welfare in pig stables since the acceptance of the relevant parts of the regulation is voluntary and under-compensated and the acceptance of the offer is therefore close to zero.
3. Also, if aims are stated as reasons for a subsidy, while the fulfilment of the aim bears no costs or is a technical standard, the aim has to be questioned.
  - This is the case in subsidised cow stables within the measure

On the other hand, there is a threat of constructing an intervention-logic, which might be consistent and pretty, but does not reflect the goals of the decision makers themselves. An example might be our attempt to construct possible justifications for income-subsidies along the line of “higher income serves the preservation of farms and farms preserve a cultural heritage, a cultural landscape or social stability.” Hardly any of the policy-makers followed this rather ambitious try. The basis of the analysis of the goal system in practice is therefore always a deep discussion with the decision maker as will be proposed in the next section.

## **2.2 Discussion of intervention logic: The proceeding**

### **2.2.1 First step of the analysis**

As will be discussed later on, the policy-makers might show little interest in a substantiated discussion on the measure’s goal system. Especially in those cases where the official goal system serves rather as a façade covering up the underlying real aims of politics and administration it is indispensable to analyse the stated goal system in detail ahead of the discussions.

Again: A prerequisite for doing so is the theoretical frame. One has to think about how the measure influences the social and/or economic system in principle and what the justifiable supergoals are. The selective grants of investment aid can only be justified by corporate

goals such as ameliorating the welfare of society as a whole. In order to do so, the measure has to affect the structure of the agrarian sector as a whole. This structural aim is nowadays, in contrast to the beginning of the investment aid in the seventies, not clarified in the official publications.

Rather different goals are stated next to each other in the regulations, which might be conflicting with respect to their structural effects: amelioration of farmers' income in general and strengthening the sector's competitiveness. If the theoretical analysis shows inconsistencies like this, one should think in advance about possible arguments to solve them. In this case a possible solution for the dilemma is reached by the differentiation of goals with respect to regions and/or special kinds of farms. These possibilities have been discussed with the decision makers in detail as will be explained in the next section.

### **2.2.2 The process of discussion**

In order to establish - or better: to reconstruct - a consistent interventional logic in cooperation with the policy-makers it might be helpful to start from the bottom, i.e., from the problem to be solved by the measure. It is a rather astonishing and somehow exposing experience that civil servants, responsible for millions of Euro a year, are not able to tell which problems this money is to cure. This situation came up in some discussions with representatives from the ministries of the Länder.

In judging whether a problem should be addressed by the measure one can argue in analogy to the judgement with respect to goals. In many cases the stated problems might simply be the mirror image of a stated goal (for example small scaled farms as a problem and acceleration of structural change as a corresponding goal), while in other cases the stated problems serve as justification for a goal. This is the case, for example, when competitiveness is the goal and farms are hindered in their investment activity by strict legal obligations as was claimed quite often. In other situations problems were named, that can not possibly be the reason for public intervention, such as unsatisfactory profitability. Here the task was to go deeper: if profitability is low, why does the public want the farmers to invest? By doing so finally two strands of argumentation could be distinguished:

- the first group of countries wants to overcome structural deficits in order to guarantee a competitive agriculture in the future; they want to accelerate structural development;
- the second group of countries wants to preserve the agrarian structure of rural Germany in order to stabilise the rural economy and cultural landscape; these countries might rather want to slow down the change.

It has to be underscored that the guidelines of the measures in these countries do not differ in respect to stated goals and implementations, while the goals identified in personal discussions are nearly opposite.

### **2.2.3 Problems of the proceeding**

Quite often in the beginning of the discussion process administrators and politicians did not understand the task of clarifying their goals. This inability to understand seemed to root in a crude understanding of how to evaluate a measure. The idea dominated that it would be sufficient and possible to examine the existing data carefully in order to isolate all possible effects of the measure. The consciousness about the core subject of evaluation, to tell something about relevance, efficiency and effectiveness was sometimes low.

A severe practical restriction was that usually discussion partners are not the actual policy-makers, those who define social goals. Administrators have much knowledge about legal and technical details of the implementation of a measure, but they do not have the mandate to interpret the measure's goals.

A theoretical and conceptual problem is that in the rather progressive process that was propagated in the last section the evaluator might run the danger of imposing goals that were not really thought about in advance by the discussion partners. Even though the feeling might sometimes evolve that the opposites are just looking for some justification for the measure, a careful analysis should still show up such an attempt when analysing whether the implementation reflects the stated goal.

## **3 Lacking goals?**

### **3.1 An attempt for explanation**

If one is not to despair on the work of evaluation, one must stick to the assumption that politicians regularly behave in a goal oriented manner. That opens the question of what the actual goals behind the façade of a questioned official goal-system might be.

Besides goals that are self-justifying, some goals might exist that are motivated by interests of political and/or administrative institutions, and other goals that are purely personally motivated, whereby the personal interests themselves might strongly be determined by the functioning of institutions.

Rather astonishingly, the partners in the discussion process spoke quite openly about the goals they serve by spending money on agrarian investment aid. Most often it was stated incidentally that

- one has to help the farmers and
- the flow of money has to be secured.

Clearly securing the flow of money is an institutional aim and the aim of helping the farmers is strongly motivated by the agrarian pressure groups. Indeed these goals can be explained by the theories of political economy, more exactly those considering interest groups, federal structures and mixed financing.

The group of farmers is - despite of their diminishing number - still of rather strong political influence. Politicians are interested in supporting this well-organised group and even more they fear cutting a subsidy once it has been installed. They are even more interested in keeping up measures which they do not have to finance on their own in a federal system. Next to the politicians it is the administration that is all but interested in abolishing measures which grant jobs and influence to those occupied with their implementation.

### **3.2 Consequences for evaluation**

The evaluator has to be careful with generalisations: With respect to actions of politicians who have to act in unpredictable complex social systems, the phrase of “muddling through” has been established. This expression takes into consideration the necessity of a certain degree of rather intuitive decisions under these circumstances. Then one has to concede that sometimes a measure has to be tried out and developed further in a continuing process.

Even in those cases though, results on the goal system are everything but useless to the further proceedings. They reveal those critical aspects, which are probably most fruitful to be analysed empirically. Such an interesting question which results from our work is for example, whether, as implied by the goals of the different German states, the same measure can result in accelerated structural change under certain conditions and slow it down under different conditions. Still, such a process of trial and error might be acceptable for newly implemented measures, but it can surely not be accepted for a 30-year old measure like the investment aid in agriculture. What then are the consequences of the assumed institutional reasons for lacking goals for evaluation? First we have to expect practical consequences: Politicians and administrators might not be as interested in the results of evaluation work as could otherwise be expected and their willingness to cooperate might be restricted.

Then, if evaluation wants to move things, this situation has to be taken into consideration. There are principally two ways of doing this:

1. create public transparency by publishing results in order to build up a certain amount of pressure;
2. show an interest in the political and administrative restrictions in the recommendations that result from the evaluation.

Since at this point of time the possibilities to publish results are usually contractually restricted one may stick to the second options. A consequence would be that fundamental criticism like the exposure of an inconsistent goal system will be avoided. A measure will never be questioned as a whole; instead the evaluator might try to keep damage minimal. What remains are solutions at the third best level. Clearly the acceptance of hidden institutional and personal goals should not really be an option. Evaluation reports then often suffer an undeserved fate: The fate of being studied without interest and remaining without consequence.

## 4 Conclusions

Despite these rather discouraging aspects, the analysis of the systems of goals of a measure should be the first step in evaluating it. The question remains open, of whether it could also be the last. What should be done if the theoretical analysis challenges the officially declared system of goals as a whole and the following discussion process underscores this result? Why should the goal-related questions and indicators be answered if goals are not valid? Should an evaluator stop work at this point? Should he analyse the institutional causes instead?

In spite of the usefulness of the analysis of intervention logic in evaluating a measure, and in contrast to the emphasis this paper puts on it, it is seldom part of evaluation reports. Surely the reasons for this situation lie at least in part in the institutional conditions of evaluation. There is no room here to discuss these causes which are worth further investigation. Many questions remain unanswered. Maybe it is time to rethink evaluation.

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# **Ex-Ante Evaluations of Rural Development Programmes – Not just an Appraisal**

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## **1 Introduction**

An ex-ante evaluation supports the preparation of proposals for new or renewed community actions. Its purpose is to gather information and carry out analysis, which helps to ensure that the delivery of policy objectives will be successful, that the measures used are cost-effective and that a reliable evaluation will subsequently be possible. Based on experiences with previous and ongoing ex-ante evaluations, this paper provides an insight on how to perform such evaluations to make proposals more “Brussels-proof” so that the approval process is made easier. Furthermore the most important aspects and potential pitfalls during the evaluation process are described. The setting of the paper is the ex-ante evaluation of rural development programmes as the second pillar of the Common Agricultural Policy or CAP, also commonly known as the new EU policy for 2007-2013 on rural development support.

## **2 Background**

### ***The deal with Brussels***

Rural development programmes supported by the EU have many beneficiaries. At the forefront are the farmers who will have to deal with adapting to the EU agricultural reforms and with the new Common Agricultural Policy (CAP) stimulating farmers to produce higher quality, to respond better to market demand and to become more competitive. Besides farmers, the programs also concern other users of the rural areas. In the first place there are the permanent rural residents. For them, maintaining and improving the quality of life in rural areas is of primary concern. Next in line are urban residents, who are increasingly discovering rural areas as an interesting site for recreation, or as a new way of life for those wanting to escape from congested urban areas.

The use of inputs from the rural development programme is badly needed for improvements in agriculture and the rural areas to proceed smoothly. For all parties concerned it is of utmost importance that rural development programmes are of high quality and are manoeuvred through the Brussels bureaucracy without a hitch. Fast approval of the programme is needed to start with programme implementation on time. A

well conducted ex-ante evaluation is an important tool to ensure fast approval of the programme by the European Commission.

### *To appraise and to improve*

Evaluations are often seen as obligatory items “because Brussels requests this” and tend to turn out in the form of an appraisal towards the end of the process. However, an evaluation process is especially about improving. This is certainly the case of an ex-ante evaluation where there is still plenty of opportunity to modify the development programme on the basis of arguments and facts. Improvements happen by combining the qualities of the programme writers with those of the evaluators by way of an interactive and iterative process. A direct exchange of views between the programme writers and the evaluation team is an essential precondition to best utilise the interactive character of an ex-ante evaluation. In this process the evaluators operate from their role as independent and objective experts without, of course, taking over the role of the programme writers. Hence, evaluators stay away from any internal and political discussions with and between the parties that are involved in setting up the programme.

The ex-ante evaluation (as are the mid-term and ex-post evaluations) is a formal requirement imposed by the European Commission: no ex-ante evaluation, no acceptance of the programme, hence no implementation. However, as already mentioned, such a formal conditionality should not undermine the possibilities offered by such an evaluation to strengthen the content and chances of success of the programme. For instance, the mid term evaluation of the first phase of the rural development programme in the Netherlands (2000-2006) showed a number of problems in its implementation, especially when it came to indicators and target figures. Implementation problems would have been much less if during the ex-ante evaluation more attention had been paid to the noted shortcomings of the programme.

Evaluating is therefore about improving, using an interactive and iterative process as follows:

- Appraisal of the rural development programme in “development” according to the European Commission’s Draft Guidelines for Ex-Ante Evaluations (EU Com 2005).
- Making suggestions for improvement during the development phase of the rural development programme to the Steering Committee and (in)directly to the programme writers.
- Receiving reactions on the evaluators’ suggestions from the Steering Committee and the programme writers.
- Delivery of an objective and independent final appraisal of the development programme.

In this manner the expertise of the programme writers and the evaluators can be combined to achieve an optimal result. Optimal in the sense of:

- The programme is accepted by the European Commission; and just as important,
- the programme has the right objectives, with a good utilisation of programme inputs.

### *Conditions for success*

Past experiences reveal that a successful ex-ante evaluation can only be achieved if a number of conditions are met such as:

- Good working relations between the evaluators, the steering committee and programme writers when it comes to respecting each other's professionalism, and a general consensus about the ultimate goal.
- A positive attitude of the steering committee and programme writers towards evaluations.
- The independent and objective role and constructive attitude of the evaluators
- Sufficient knowledge about European Commission policies and the workings of the European Commission's bureaucracy by the evaluators.
- Good technical knowledge concerning objectives, strategy and indicators of the evaluators

## **3 The approach**

In this chapter the approach for the implementation of an ex-ante evaluation is presented following the draft guidelines of ex-ante evaluations from DG AGRI (EU Com 2005). When it comes to the content and organisation of the work, the principal directive is chapter 6 of the guidelines. Concerning the reporting, guidance is provided by the "indicative outline of an ex-ante evaluation report", as presented in chapter 7 of the draft guidelines. As it still concerns draft guidelines, the evaluators should be aware that changes in the European Commission guidelines for ex-ante evaluations may occur over time.

### **3.1 Iterative and interactive process**

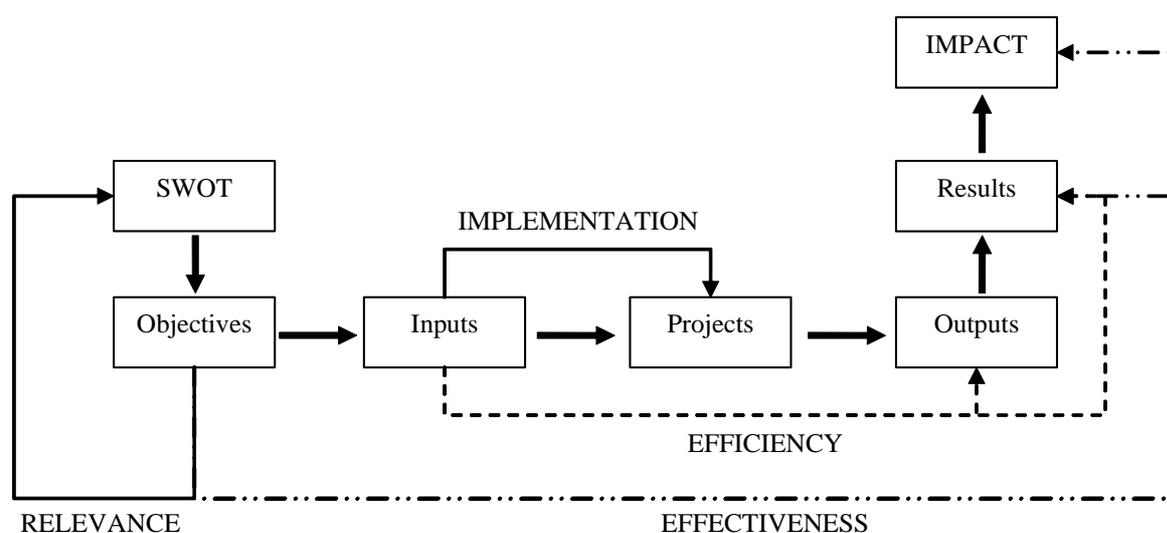
As mentioned earlier, an ex-ante evaluation is pre-eminently an interactive and iterative process; the programme writers deliver a part of the concept version of the programme, the evaluators appraise this and provide comments, and it is up to the programme writers to consider these or not. However, at the same time the writers have to deal with other

developments: new insights and information, changing opinions from partners and major stakeholders, etc. This can lead to further changes of the programme during the writing process, irrespective of the input from the ex-ante evaluators. As a consequence, the exact process of an ex-ante evaluation is often difficult to predetermine. Evaluators therefore often suggest two or more “appraisal moments”, as well as a certain flexibility in the approach and in specific expertise and team composition.

### 3.2 Evaluation framework

In an ex-ante evaluation, the relationship between the various components in a development programme is important. The European Commission often appraises the programme on the basis of its consistency and internal coherence. Figure 1 demonstrates how, during the process of programming, the various components are linked with each other.

**Figure 1:** The ex-ante evaluation framework



Source: Own illustration.

Figure 1 shows that each component leads to a specific evaluation question. Concerning the relevance of the programme, attention focuses on the SWOT analysis in which the most important problems regarding agriculture and rural development have been identified. A thorough analysis is required of the weaknesses and risks, such as the ongoing liberalisation of agriculture and the changes in CAP. Finally it is important that the SWOT pictures the starting points for solutions (strengths and chances).

The effectiveness of the programme is appraised on how the objectives, which have been defined in the programme, are linked with the identified bottlenecks and how proposed actions will contribute to removing these bottlenecks.

For the European Commission, relevance and effectiveness of the programme are the most important aspects on which the ex-ante evaluators should focus. With the efficiency of the programme the question is to what degree the proposed inputs and projects will produce the desired outputs (i.e., investments, advice, etc.), the desired results (i.e., direct benefits to the target group), and the desired impacts (e.g., the improvement of quality of life in rural areas).

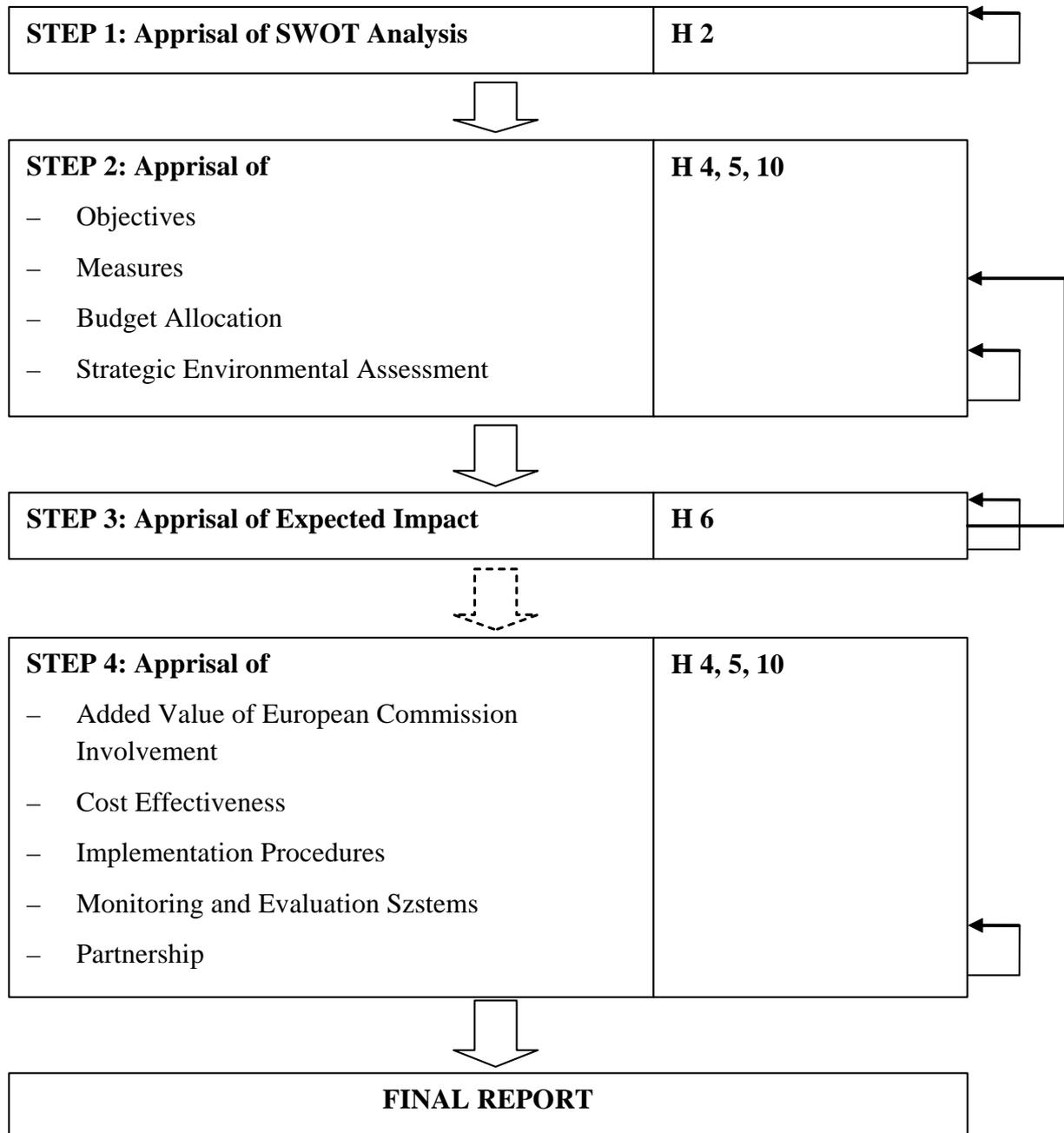
In sum, there are four key questions that need to be answered during the ex-ante evaluation:

- How relevant is the proposed programme?
- How effective is it?
- How efficient is the programme?
- Will the proposed implementation modalities contribute to the relevance, effectiveness and efficiency of the programme?

### **3.3 The work plan**

Essential is that the programme writers, each dealing with a separate Axis or chapter, keep a similar time schedule, not just for the sake of efficiency but also to keep vigilance on the internal coherence of the entire programme.

In the next figure 2, the work plan of the ex-ante evaluators is presented in the form of a diagram. With each step, the corresponding number of the main chapters of the final evaluation report are mentioned and are in accordance with chapter 7 of the draft guidelines.

**Figure 2:** The four steps of an ex-ante evaluation

Source: Own illustration.

The steps in figure 2 are derived from chapter 6 of the EC Draft Guidelines. The first three steps demonstrate a strong interlinkage. Step 4 can, in part, be carried out parallel to the other steps depending on progress made in programme writing. In the next paragraphs, each step will be described in detail.

Before starting the ex-ante evaluation, it is advisable that a kick off meeting is set up with the Steering Committee in order to agree on some last points regarding the work plan and the time schedule.

### ***Step 1: Appraisal of the SWOT analysis***

For the European Commission, the SWOT analysis is an important aspect. There must be a crystal clear relationship between the problems of the rural areas, likely future development trends and government policies. The problems must evolve from the weaknesses and threats, and are to be supported with data. It is important that strengths and weaknesses relate directly to likely development trends to increase the probability that the proposed intervention policy becomes successful. Hence, if the SWOT analysis is not correctly carried out from the very start, in the eyes of the European Commission the rest of the programme is also likely to be inadequate. Furthermore, the description of the SWOT has consequences for the choice of objectives, priorities and measures, etc. Therefore as in Step 1, a proper SWOT analysis is essential for a good program and clearly deserves a lot of attention for the sake of the entire programme.

#### Aims of Step 1:

- Appraise if the SWOT is complete.
- Identify the causes of the problems.
- Identify and appraise the driving forces that are behind sustainable rural development.
- Contribute to the quantification of the context and impact-related base line indicators through verification and, if necessary, mention the modifications.
- Appraise the ranking of the problems (by way of a problem tree) and priorities, which belong to the needs and which are in relation to the objectives and priorities of implementation. If so required, give suggestions for modifications.

#### Methods of Step 1:

- First appraisal of the concept SWOT analysis in line with the purpose by way of a desk research (EU regulations, guidelines, national policy documents, appraisal indicators, bench marking appraisal of problem tree, etc). Findings are presented in an intermediary report.
- Meeting with the steering committee to discuss the intermediary report before it is forwarded to the programme writers.
- Meeting with the programme writers to present and explain the findings. Previous experiences show that such meetings are essential in the process of ex-ante evaluations. If discussions are not open from the very start and information is not shared, it is likely to have repercussions for the remainder of the evaluation process.

- Eventually a second appraisal of the revised SWOT has to be conducted, including reporting by the evaluators.
- Discussion with the steering committee.
- Completing the chapter for the final report (H2).

#### Result of Step 1:

An objective and independent appraisal of the final SWOT of the rural development programme as final appraisal for chapter 2 (H2) of the final report (according to the Draft Guidelines)

#### ***Step 2 & 3: Appraisal of objectives, measures and budget allocation and appraisal of expected impact***

The work for Steps 2 and 3 can be combined because of their strong interlinkage and the iterative process. Reporting will however be for each individual step. An ex-ante evaluation of the appraisal of objectives, measures, budget allocation and expected impact is of importance because these points constitute the “heart of the programme”. These steps can be done in a proper manner if the SWOT has been completed.

#### Aim of Step 2 & Step 3

- Appraisal of the targets that are based on the needs (conform the SWOT), and of the linkage of the programme objectives with the needs.
- Review of the intervention logic of the measures (output, result, impact), and appraisal of the contribution of the measures to the quantified targets and major programme objectives - both at EU and national level.
- Appraisal of the internal coherence of the programme (mutually reinforcing relations between the Axis, no conflicting measures).
- Appraisal of the budget allocation for the measures in relation to the objectives per Axis.
- Appraisal of the contribution of the programme to the European Commission’s priorities according to the Lisbon and Goteborg Strategies (‘growth, jobs and sustainability’), and the country’s National Strategic Plan.
- Analysis of the effects of the programme on the environment by way of a Strategic Environmental Assessment.
- Appraisal of the quantification of the targets: are they verifiable and relevant?
- Appraisal of the correct application of the common baseline indicators in relation to the programme specific objectives and foreseen changes in the base line values (impact).

- Verification of the functioning of the data collection mechanism in relation to the indicators and timely availability of data.

#### Methods of Step 2 & 3:

Barring some minor changes, the method is almost the same as for Step 1.

- First appraisal on the basis of desk research: an analysis of the link between SWOT and identified needs and objectives (problem tree – objective tree). An analysis of the link between: (i) relevant European Commission and national policy documents and priorities; (ii) previous evaluations, other sources and the current programme; (iii) budget allocations in relation to the objectives per Axis. At this stage, there will also be an appraisal regarding the meaning of the quantification of the targets, etc.
- Meeting with the Steering Committee to discuss the intermediary report before submission to programme writers.
- Work meeting with the programme writers to present and explain the findings. On the basis of the meeting, if required, modifications of the concept programme are incorporated by the programme writers.
- If required, a second appraisal of the concept programme is conducted.
- Meeting with the steering committee (to combine with other points on the Committee agenda).
- Completion of the chapters of the final report (H 4, 5, 6, 10).

#### Result of Step 2&3:

An ex-ante evaluation of the objectives, measures, budget allocation and expected impact of the programme. The results are presented in chapters 4, 5, 6 and 10 of the final evaluation report.

#### ***Step 4: Appraisal of EU involvement, cost effectiveness, etc.***

##### Aims of Step 4:

The five elements that are considered in Step 4 are the following:

- Appraisal of the Community value added.
- Appraisal of cost effectiveness.
- Appraisal of implementation procedures.
- Appraisal of the monitoring and evaluation system.
- Appraisal of the manner on how the partner principle has taken shape.

These elements form an important part of the ex-ante evaluation as they will give an appreciation of the manner how programme implementation is likely to be in practice. For instance, for the EC it is important to be able to appraise what the proposed monitoring system is likely to deliver on relevant data, and with which progress of programme implementation can be measured.

#### Methods of Step 4:

The process is somewhat lighter than that of the former steps. Most of the five elements can be covered by the evaluators in a parallel manner, with the added advantage that it will increase efficiency when presenting Step 4 to the steering committee.

- a) First appraisal of all five elements on the basis of desk research

**European Community value added:** Here the additional character of the proposed policy is assessed. In order to appraise the effectiveness of the policy, it is necessary to gain an insight into expected autonomous developments and the application of other instruments which are not linked with the policy. Once isolated, this will form the “zero- scenario” from which the EU involvement can be measured. In this phase, also the synergy of the policy with that of the EU is examined. The relationship between the programme and the CAP is of particular importance. Also the relation between the environmental policy, Natura 2000, and the development programme is important, as well as to what degree the programme contributes to the Lisbon and Goteburg objectives.

**Cost effectiveness:** Cost effectiveness, also called efficiency, is about the relationship between programme inputs on one hand and outputs and results on the other. Programme inputs consist not only of funds made available by the European Commission and the co-financing, but also of human resources that are provided by several organisations or agencies. With the outputs and the results, it is mainly about what the measures and projects will produce at first. Hence, to make a proper assessment of efficiency, it is necessary to first clearly describe with what kind of measures and instruments the programme will be implemented. The next step is to examine if there are possible alternatives that may produce the same anticipated results more efficiently, using past experiences with similar programmes. In this manner, the evaluators will be able to better substantiate whether or not the proposed programme is cost effective.

**Implementation procedures:** With the appraisal of the procedural side of the programme, the question has to be dealt with to what degree there is a balance between the (necessary) bureaucracy and the desire for high quality programme implementation. Often choices will have to be made between various possible procedures. Of importance is to review how the current programme is proceeding and if lessons can be learned from this. Too much (unnecessary) bureaucracy has to

be avoided whereby the subsequent “red tape” intricacies will discourage many potential beneficiaries of the programme. An organisation can be classified as good if funds end up at the right place, and that projects are carried out well and according to programme planning.

**Monitoring and evaluation systems:** Adequate monitoring is of great importance for the implementation of the programme. From the mid-term evaluation of the current programme in the Netherlands, it is known that the European Commission attaches great importance to proper monitoring. In the previous steps (two & three), the evaluators have already looked at different kinds of indicators, and verified whether they are measurable and if the proposed mode of measuring is correct. Hence, the monitoring system can be based on the evaluators’ findings and possible suggestions. During this step, the evaluators will also verify whether the division of responsibilities is clear: which organisation collects the necessary data, how data is verified, and who is responsible to warrant that the (correct) data will remain available for some time.

**Partnership:** Co-operation is a precondition for a good policy. This is certainly the case for rural development where a great number of stakeholders are involved. Also the broadening of the agricultural sector means the entry of other (non-agricultural) parties into this sector. In the first place, co-operation between public bodies has to be evident and considered an essential aspect of the programme in terms of “process quality”. A second form of co-operation is with non-public/private bodies such as agricultural organisations, social organisations, and those dealing with public recreation. Finally, the Leader+ approach as an essential instrument for programme implementation, demands good co-operation between all parties concerned, particularly at the local level.

- b) Meeting with the steering committee to discuss the preliminary report before it is forwarded to the programme writers.
- c) Second appraisal (if necessary).
- d) Completion of the chapters of the final report.

#### Result of Step 4:

An ex-ante evaluation of five themes (Community value added, cost effectiveness, implementation procedures, monitoring and evaluation systems, and partnership). The results form the basis for the chapters 7, 8 and 9 of the final report.

#### ***Final product***

The final product of the ex-ante evaluation is to be a clear and concise main report following the indicative outline of the European Commission Draft Guidelines (EU Com 2005). The main body of report presents the appraisal of the evaluation according to the (4 step) work plan as shown and, if required, describes which main findings of the

evaluators have actually been incorporated into the programme and which not, and why. In the annexes of the report, the objective and the process of the ex-ante evaluation is described including the methods used. Where needed, a further justification of some of the findings will be presented as annex with reference in the main report.

#### **4 Concluding remarks**

Based on previous experiences with ex-ante evaluations, problems often start already at Step 1 with the appraisal of the SWOT analysis. SWOTS are often very qualitative when presented for the first time, making little use of baseline indicators. Defining the strong and weak points in the SWOT is often less of a problem than defining the chances and threats. This seems understandable, as defining chances requires a very good insight (and a little vision too) of development potentials that are set against priorities, the available funding and consensus from all parties concerned - some of which are politically influenced.

The connection between a SWOT and the stated objectives is often weak and this is mainly due to the lack of a clear “problem tree-objective tree”. The listing of specific objectives per measures is also often a weak point.

The process of writing a long term rural development programme requires the interventions of several writers to cover the four Axis and subsequent measures. Hence, good co-ordination within the team of writers is crucial to ensure: (i) the internal coherence of the programme; and (ii) that there are (mutually reinforcing) interactions between the Axis. Hence, poor management of and co-ordination between the writers team often leads to the programme becoming disjointed.

Recommendations from previous evaluations (mid-term and ex-post) are often underutilized, especially when it comes to having more programme coherence, better SWOT and problem analysis, eventually leading to a better selection of priorities, goals and measures. Such recommendations with respect to those measures which were running well, which not, and why not, are often not taken into account in the new programme – which is especially incomprehensible when stated objectives between the old and new programme have remained virtually unchanged.

In view of the above stated comments, following mid-term and ex-post evaluators need to go down to the roots of the development programme to get a first understanding of the basis on which the entire programme was built. In particular, a hard look needs to be taken at the SWOT and the problem analysis and on how these were done. The evaluators also need to understand the relationship between the problem analysis, the SWOT and the

programme objectives. How well are these related? Finally, regarding the base line situation, the question following evaluators pose is how baselines were established, how well and how do they stand up in relation to the programme specific objectives? In getting an answer to these questions, taking a look at ex-ante evaluation reports can be very helpful and should be the starting point of any mid term and ex-post evaluation.

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**Papers Presented in the Session on  
Farm Investment Support**



# A Comparison of Farm Investment Support in Selected EU Member States

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Farm investment support (FIS) is a measure which is carried out in most European Union member states as a part of the integrated rural development programmes (RDPs) based on the EC Council Regulation 1257/1999 (European Commission 1999a) for Non-Objective 1 Regions, and on the EC Council Regulation 1260/1999 (European Commission 1999b) for Objective 1 Regions. The importance of farm investment support in the framework of rural development policy, the goals pursued and the kind of investments supported vary to a large extent between these member states. The following short overview of the implementation of farm investment support has been assembled on the basis of a questionnaire answered by the participants of the workshop<sup>1</sup>. This background information should mainly facilitate the understanding of the evaluation issues discussed in the contributions of the participants. Data from Wallonia in Belgium, France, Germany, Greece, Italy, Poland and Spain is included in the comparison.

## *Objectives of Rural Development Programmes*

Although RDPs are in many cases not only defined on the national but also on a regional level, the comparison has been compiled on a national basis. It is thus possible that some regional aspects are missing or have been roughly subsumed. This simplification was necessary in order to allow for a cross country comparison on a European level.

A wide range of 20 different targets of the RDPs<sup>2</sup> was stated by the workshop participants. These objectives can be grouped under the following four aspects:

- (1) improvement of competitiveness of the agricultural sector,
- (2) externalities from agricultural production,

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<sup>1</sup> The authors did not conduct a review of the RDPs of the different EU member states. The quality of the data displayed therefore relies on the information available to and provided by the workshop participants.

<sup>2</sup> The Rural Operational Programmes (ROP) usually do not define goals at this level.

- (3) rural development on the whole and  
 (4) the situation of the individual farms.

Each of the nations tries to achieve a wide number of different goals within its programme (Table 1). The set of objectives may differ strongly among the states. While some goals, such as the improvement of the environment, an increase of farm income or the improvement of the food quality are stated by several countries, other goals, like the development of forestry resources or the competitiveness of food processing reflect the interests of a single member state.

**Table 1:** Objectives of Rural Development Programmes

	B-Wallonia	France	Germany	Greece	Italy	Poland	Spain
<b>Competitiveness:</b>							
Improvement of competitiveness of agricultural production	✓			✓			✓
Competitiveness of food processing, vertical and horizontal integration of the agri-food sector						✓	
<b>Externalities:</b>							
Improvement of the environment	✓	✓	✓			✓	✓
Improvement of animal welfare							✓
Improvement of food quality	✓	✓			✓	✓	✓
Adjustment of farms to EU standards <sup>1</sup>						✓	
Creation of sustainable agriculture	✓	✓				✓	
<b>Rural development:</b>							
Improvement of the municipal infrastructure			✓	✓			
Improvement of living conditions			✓			✓	✓
Keeping population in rural areas							✓
Protection and/or creation of employment			✓			✓	✓
Creation of equal opportunities for young people and women							✓
Increase of young population in rural areas							✓
Development of forestry resources		✓					
<b>Farm level agriculture:</b>							
Increase of farm income			✓		✓	✓	✓
Adjustment of agricultural structure			✓	✓		✓	✓
Improvement of working conditions	✓			✓		✓	✓
Improvement of production conditions					✓	✓	✓
Improvement of appearance of agriculture in public					✓		

<sup>1</sup> Relevant only for new EU member states.

Source: own compilation based on an inquiry among the workshop participants.

### ***Objectives of farm investment support***

A wide range of goals are connected to FIS in all countries (Table 5). Seven different targets could be identified. The variation among the countries is much lower compared to the objectives of the RDPs. Two goals are important to all states included in this comparison namely the „Improvement of competitiveness of agricultural production” and “Improvement of product quality”. In most countries the “Improvement of the environment”, the “Improvement of animal welfare” and “Diversification” are of

relevance. Between some of the goals of the measure and the programme there is a potential for conflicts (e.g., conservation of agricultural structure and improvement of competitiveness, or protection and creation of employment and competitiveness). It also becomes apparent that no country uses the measure to achieve one predominant goal. For evaluation, this multitude of goals (without a clear weighting) imposes a problem, especially when it comes to assessing the efficiency of farm investment support.

**Table 2:** Objectives of farm investment support

	B-Wallonia	France	Germany	Greece	Italy	Spain
Improvement of competitiveness of agricultural production	✓	✓	✓	✓	✓	✓
Increase of farm income	✓		✓			✓
Improvement of product quality	✓	✓	✓	✓	✓	✓
Diversification	✓	✓	✓	✓	✓	
Improvement of working conditions/safety			✓		✓	✓
Improvement of the environment	✓		✓	✓	✓	✓
Improvement of animal welfare			✓	✓	✓	✓

<sup>1</sup> Food safety in Poland.

Source: own compilation based on an inquiry among the workshop participants.

Other goals not listed in table 2, but mentioned by several single states are the introduction and support of organic farming (Italy), the protection and creation of employment (Germany), the improvement of hygiene conditions (Greece) and the adjustment of the farm production profile, scale and quality to market demands (Poland)

### *Responsibilities of government levels*

In most EU countries the state government is responsible for programming, implementing and evaluating the investment support scheme (NUTS 0). However, lower level governments are also involved. In Belgium the regions at NUTS I are exclusively in charge. In Poland the situation is somewhat extraordinary since in general the national government is responsible but the implementation is delegated to regions at NUTS-III level (Table 3).

**Table 3:** Governmental levels responsible for programming, implementation and evaluation based on the NUTS-levels

	B-Wallonia	France	Germany	Greece	Italy	Poland	Spain
Programming	I	0	0 & I	0 & II	0& II	0	0 & II
Implementation	I	0	I	0 & II	0& II	0 & III	II
Evaluation	I	0	0 & I	0	0& II	0	0& II

Source: own compilation based on an inquiry among the workshop participants.

### *Instruments of farm investment support*

Generally, investment support can be attributed to one-time grants, subsidised interest rates, loan-guarantees or retarded loan payback. While all countries use one-time grants (Table 4), subsidised interest rates are another common instrument, implemented in Wallonia (Belgium), France, Germany and Spain. Loan-guarantees are only approved in less than half of the countries. An individual method was developed in Spain where it is possible to lower or delay the payback of loans within the first years.

**Table 4:** Instruments of subsidizing farm investments

	B-Wallonia	France	Germany	Greece	Italy	Poland	Spain
One-time grant	✓	✓	✓	✓	✓	✓	✓
Subsidized interest rates	✓	✓	✓			✓	✓
Loan-guarantee	✓		✓			✓	✓
Initial diminution of payback of loan							✓

Source: own compilation based on an inquiry among the workshop participants.

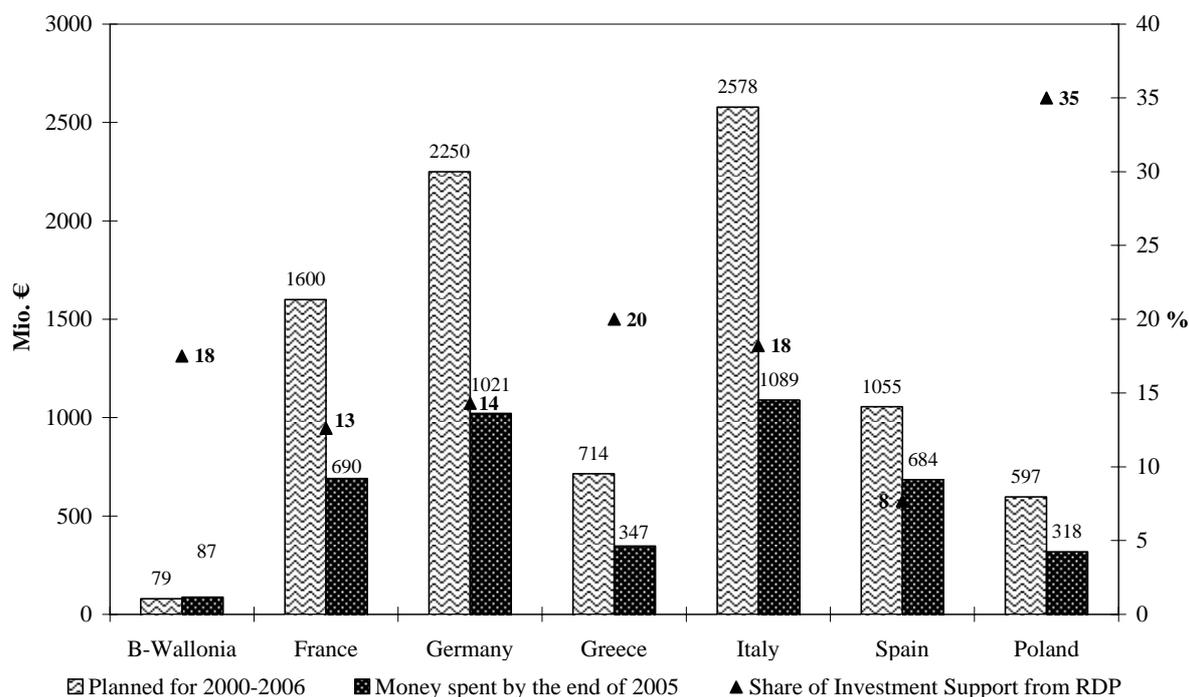
### *Budget for farm investment support*

In the European Union 4,682 Mio Euros have been assigned from the EU-budget to farm investment support in the planning period of 2000 – 2006 (European Commission 2004). This amount is supplemented through co-financing by the national governments. In Non-Objective 1 Regions the EU-share may not exceed 50 % of the eligible investment sums (European Commission 1999a) whereas this proportion increases to up to 75 % in Objective 1 Regions (European Commission 1999b).

The funds assigned to farm investment support relate to a share of 9.5 % of the total rural development funds. In contrast, all countries represented at the workshop attribute more funds in relative terms to farm investment support (Figure 1). The highest share is provided by Poland (33 %), followed by Greece (20 %), and then Wallonia (Belgium) and Italy (18 % each). In some countries there is still a large gap between assigned funds and money spent by the end of the year 2005. However the funds committed may exceed the payments by far. For example, in Spain the commitments amount to 111 % of the funds assigned for investment support.

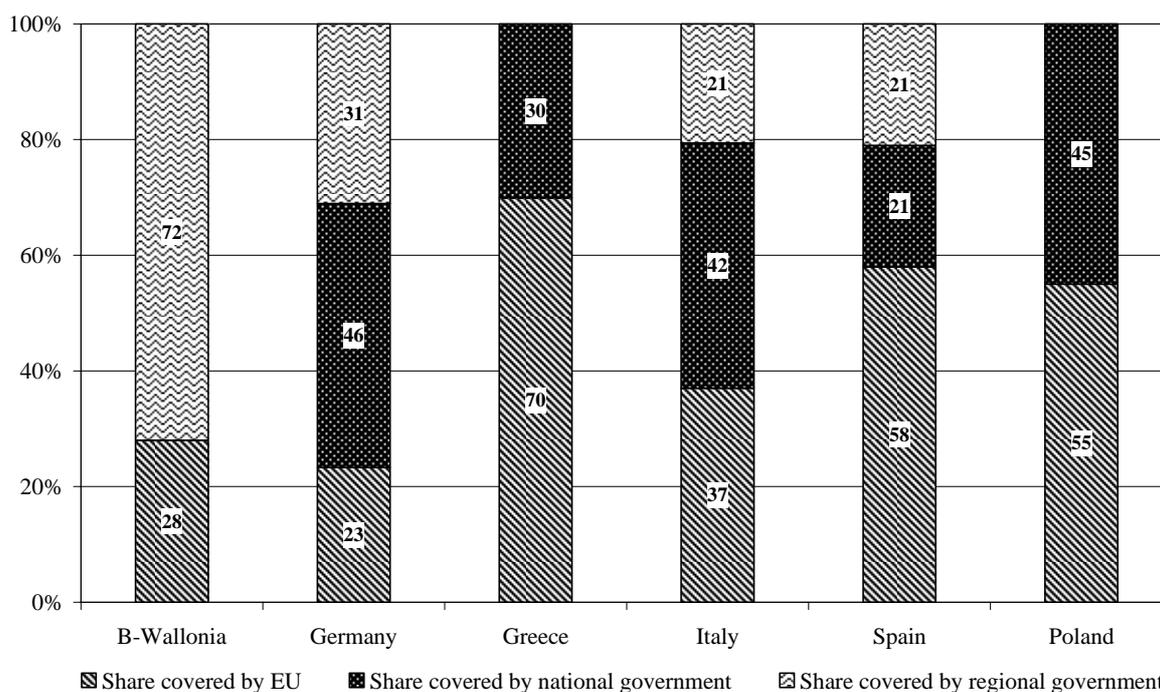
Figure 2 illustrates the three different types of „burden sharing“ common at the administrative level. In all countries except for Belgium-Wallonia it is the national government which plays the most important part in co-financing farm investment support. In Germany, Italy and Spain, the regional level is also involved in financing the measure. In Greece and Poland the EU and the national governments are the sole financiers, while in Belgium the EU and the regional government are involved. There is a large degree of variation with respect to the share covered by the EU, ranging from 23 % (Germany) to 70 % (Greece).

**Figure 1:** Public expenditures for farm investment support



Source: own presentation based on an inquiry among the workshop participants.

**Figure 2:** Shares of expenditures for farm investment support at different administrative levels

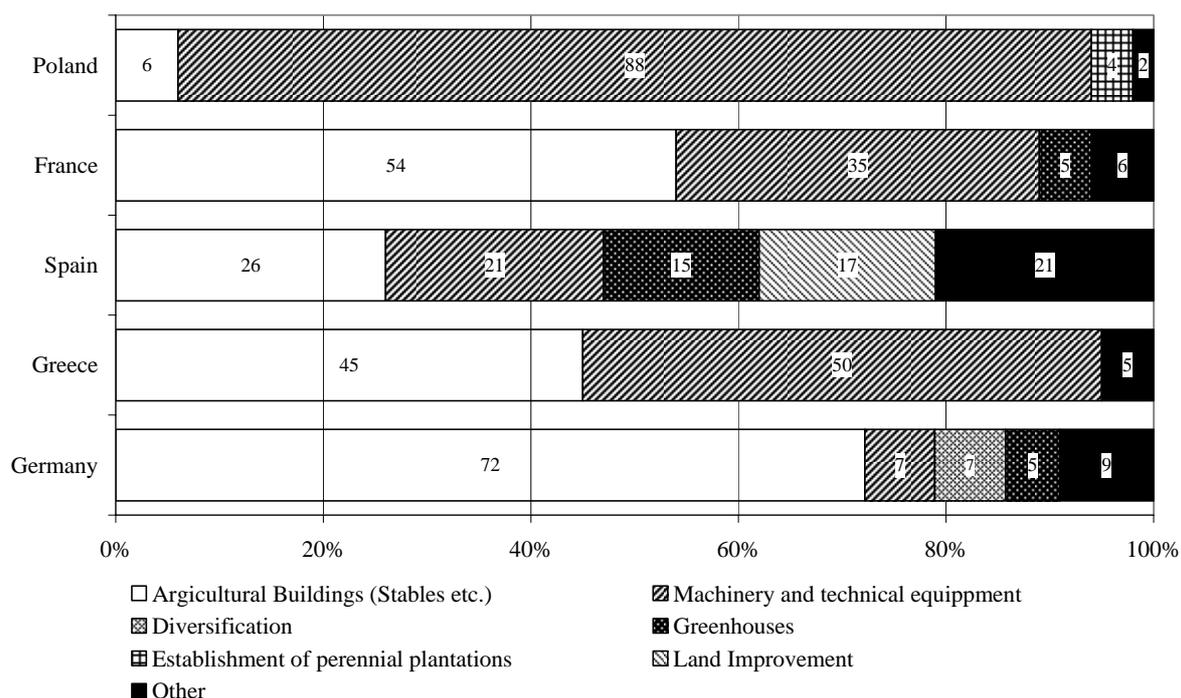


Source: own presentation based on an inquiry among the workshop participants.

### *Investments established with farm investment support*

The most important investments subsidised through farm investment support depicted in Figure 3 include agricultural buildings (mainly dairy stables but also other agricultural buildings such as machine sheds) as well as machinery and technical equipment. The share of the latter in public expenditures can reach a level of up to 88 % as it is the case for machinery in Poland. The highest share of agricultural buildings is realised in Germany where a level of 72 % of public expenditure is reached, but also in France more than half of the public expenditures go into agricultural buildings. Other destinations such as investments into greenhouses, land improvement and the establishment of perennial plantations or investments with the aim of diversification are of minor importance and are not implemented in all countries. In Italy the funds are mainly allocated for investments in agricultural buildings, machinery and technical equipment, income diversification, land improvement and the initial purchase of livestock. However detailed data, indicating the share of the different types of investment, is not available.

**Figure 3:** Main investments subsidised by farm investment support



Source: own presentation based on an inquiry among the workshop participants.

There obviously are important differences among member states regarding goals of programs and measures, implementation of the measures and subsidised projects. These differences make it difficult to compare the states with each other in terms of best practice, or to undertake the attempt of a comparative evaluation for all member states. On the other hand, the main questions to be answered by the evaluators on the relevance, the

effectiveness, the efficiency, and the sustainability of the measure are the same everywhere. Thus the methodological challenges faced by evaluators are similar and can and should be discussed jointly.

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# **The Use of Impact Indicators for the Evaluation of Farm Investment Support – A Case Study Based on the Rural Development Programme for Wallonia (2000 – 2006)**

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## **1 Introduction**

Support of rural development in the broad sense, including structural agricultural measures, has been co-financed by the public sector for about 20 years. These public interventions nowadays are evaluated throughout the programming cycle (ex ante, mid-term, ex post). For the 2000-2006 period, support to rural development is governed, among other regulations, by Council Regulation (EC) N° 1257/1999, and implemented through the Rural Development Plans (RDP) in more than 80 regions of the former 15 Member States.

Evaluation of rural development is mandatory and governed by relevant European legislation. Mid-term and ex post evaluations have to address Common Evaluation Questions (CEQs) that have been developed by the European Commission in consultation with the Member States. Several criteria and indicators are associated with each CEQ. The purpose of such a harmonised approach is to ensure consistent quality standards for evaluations conducted in Member States. Furthermore, it aims to ensure comparable results that can be aggregated at the EU-level.

This paper summarises the lessons learnt from the mid-term evaluation in Wallonia (ADE, 2003) with respect to farm investment support and the impact indicators used to evaluate its success. Following mid-term evaluation, two separate studies were conducted. The first study (Beck, 2004) raises several questions about the actual value of the selected approach and the appropriateness of the selected indicators for this type of evaluation. A second study was carried out (Bruwier et al., 2005) to look into the quantitative link between investment and income improvement making use of accounting data. This second research was complemented by a qualitative survey conducted among a small group of farmers. This paper presents the results of both studies.

## 2 Impact indicators and lessons learned from the mid-term evaluation

The overall objective of Wallonia's RDP is to promote a sustainable agriculture. Therefore, it aims to increase the added value of agricultural products while keeping the production costs of a nevertheless high quality production process low. It seeks to restore the professional and social attractiveness of the agricultural profession and wants to support the development of environmentally friendly products that respect food quality.

The first measure, support to farm investment, has no particular intervention logic. Investment supports aims to "encourage sustainable productivity". The objectives of the European Regulation have been taken over. Supported investments should improve product quality, "differential quality sub-sectors" are specifically identified. Projects should also diversify farm activities, reduce production costs, and improve environmentally friendly farming, working conditions as well as animal welfare.

Within the framework of evaluation of RDPs, a very large number of criteria and indicators were developed for each measure. The first measure, farm investment support, is covered by **seven CEQs, eleven criteria and 17 mostly quantitative indicators**.

Mid-term evaluations regarding farm investment support confirmed the relevance of the seven CEQs (FAL, 2004). However, the mid-term evaluation in Wallonia faced important difficulties as to the availability of data and data collection, namely:

- Unclear definition of basic terminology as regards 'diversification', 'improved quality of farm products', 'environmentally friendly farming' and 'animal welfare'. This lack of basic definitions thus limits the coherent and consistent collection of this type of data already at the level of monitoring. This is noteworthy given the fact that very detailed definitions exist for all these terminologies, although they are only typically familiar to experts in these areas.
- Several indicators rely on the accounts of agricultural holdings. Although accounts are the only reliable source of information, evaluators do not always have access to them for reasons of confidentiality.
- For some indicators, data has to be collected at the level of recipients through on-farm surveys (interview, sample, case study); the costs of collecting this data were prohibitive in relation to the information gained.

The detailed analysis of one main indicator, the "gross farm income (GFI)" highlighted the need to clarify the methodology in order to get really comparable information that one can aggregate at the EU-level. For example, one needs to consider **agricultural holdings as a whole** and not by isolated supported investments. One also needs **individual accounting data** from agricultural holdings. Farm improvement plans can not be considered as a

reliable data source. They are forecasted and results oriented (i.e., they have been drawn up with the objective to obtain financial support for investment). Furthermore, a **representative period of time** has to be taken into account in order to observe an effect of investment on income. All this data also needs to be available for the **benchmark group** (i.e., non-assisted peers).

This first research showed the difficulties and limits of this type of evaluation that could be called impact appraisal. The answers to CEQs collected by evaluators are generally not quantified due to all the difficulties related to data availability, collection and methodology, even though the indicators and criteria are mainly quantitative. In addition, they are non-harmonised and based on individual approaches that make it impossible to aggregate them at the EU-level.

The research recommended simplifying significantly the evaluation process in order to obtain reliable and useful results for all parties involved at regional, national and EU-level. A selection of priority questions at the European level seems essential. For these priority questions (for which an EU-level synthesis is required) a small number of key indicators should be identified. These indicators have to be operational and very clearly defined, based on harmonized and comparable data in order to permit a real synthesis at EU-level.

An additional study was undertaken in order to check whether the income (amongst others GFI) could represent this type of key indicator. This study also intended to obtain a better understanding of the causal link between investment support and income. This analysis was undertaken by the department of economics and rural development in 2005, financed by the Walloon Region. The study was based on accounting data of a representative sample of specialised dairy farms. Investment and farm income were analysed over a 6-year period, from 1998/99 to 2003/2004. This research is summarized under Point 2 below.

### **3 Does farm income form a relevant indicator to evaluate investment support?**

A research on the relation between investment (support) and farm income of specialised dairy farms in the Walloon Region was carried out for the period (1998/99-2003/2004). The research was limited to the dairy sector due to its importance in terms of disbursements. Within this sector, investments in dairy units proved to be a particularly interesting case study. Indeed, from 1996-2003, 80% of investment support in the dairy sector concerned dairy units (1.006 files). Only this type of investment was analysed in the study.

### 3.1 Methodology

Two data sources were used for this analysis, regional **accounting data** (RWCA) and files from the Administration (Directorate – General of Agriculture, Agricultural Investment Fund). The Walloon Network of Agricultural Accounts (RWCA) currently provides data for the European Farm Accountancy Data Network. It gathers data on some 400-500 specialised dairy farms. The administration provided data files **from beneficiaries** of farm investment support.

The combination of those two data sources lead to a sample of 50 farms, which invested in dairy units around the year 2000, and for whom uninterrupted accounting data was available over a six-year period, from 1998/99 until 2003/2004.

The following assumption was stated and was analysed: investment in dairy units and its support improved beneficiary farmers' income.

#### *Definition of a benchmark group*

The definition of a benchmark group is essential in the framework of this study, which tries to establish the link between investment support and income improvement. In the course of defining a benchmark group the following general facts were established for specialised dairy farms in the Walloon Region:

- most farms invest on a regular basis;
- most farms are supported in their investment (by the Agricultural Investment Fund);
- farms that do not invest disappear; no accounting is available for this latter group.

The benchmark group should ideally be composed of the average data of about 2,000 - 3,000 specialised dairy farms in the Walloon Region. Not all of these farms have accounts, though. Moreover, accounting data is only available for some 400-500 farms from the regional or European (FADN) networks. Thus, the benchmark group simply is composed of the average **data of some 400-500 specialised dairy farms**.

This approach allows two comparisons to be made. First, income of beneficiary farms can be compared before and after investment (respectively 1998/99 and 2001/2002 until 2003/2004). Second, income of beneficiary farms can be compared over the 6 year-period to the average group of some 400-500 specialised dairy farms.

### ***Limitation of this approach***

The following aspects have to be judged critically and may serve as restrictions on the chosen approach:

- The time period taken is quite short. Indeed, even by taking this six-year period, only three years of income after investment are available.
- The benchmark group also invests over this period. The sustainability of farms is immediately linked to constant /permanent investment in the production tools.
- The benchmark group does not include accounting data of farms that stop their activity. This key element is thus not taken into consideration through this approach.

Due to these limitations, this quantitative approach has been completed by a **qualitative survey** among 17 farms of the sample by interviews. This survey tried to assess additional aspects of farm investment support, in particular the questions of

- why do farmers invest,
- whether investment does improve their income (according to their individual opinion),
- why do farmers invest, if investment does not improve income,
- to which extent the support does or does not play a role in the decision to invest and finally
- how this support is perceived by beneficiaries.

## **3.2 Results from quantitative analysis**

In the following the two approaches are described which were used to assess whether investment in dairy farms and its support improved the farmers' income.

### ***a) Yearly income of the sample before and after investment***

A Student's t-test has been applied to compare yearly income before and after investment in a dairy unit for the sample of 50 supported dairy farms. The null hypothesis was that means before and after investment were the same. The outcome of the test was the acceptance of the null hypothesis at alpha 5% (level of significance).

Yearly average income of the sample before and after investment was revealed to be the same. The mean income has not changed after investment. Regarding this result, one must emphasize the short time span available (only three years after investments were made) and the small size of the sample (50 farms).

**b) Comparison of the sample and the benchmark group**

The sample of 50 farms was compared to the benchmark group for several indicators over the six-year period from 1998/1999 to 2003/2004. Main indicators were the following: area (hectare), dairy quota, labour unit (UT), and income. Four different income indicators were used regarding income, namely gross farm income (GFI) and farm income, income per labour unit, income per livestock unit. All these indicators are shown in Table 1.

**Table 1:** Indicators of the sample and the benchmark group over the six-year period

			1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
Sample of 50 farms (investing in dairy units in 2000)	Area	ha	47	48	48	49	50	50
	Dairy quota	l	376.450	399.879	387.952	393.099	399.118	406.201
	Labour Unit		1,58	1,57	1,53	1,54	1,50	1,47
	GFI	€	90.992	90.696	95.313	97.995	87.633	89.728
	Fam.Farm Income	€	66.930	63.034	66.271	69.982	58.637	61.151
	Income/Lab.Unit	€	43.544	40.500	43.734	46.927	39.927	42.437
	Income/Livestock Unit	€	698	619	735	765	637	664
Benchmark group (450 to 500 farms)	Area	ha	44	43	46	47	48	50
	Dairy quota	l	329.668	347.321	349.064	361.557	367.748	374.700
	Labour Unit		1,50	1,49	1,51	1,49	1,47	1,48
	GFI	€	78.013	77.545	83.662	85.611	77.244	81.082
	Fam.Farm Income	€	56.546	53.617	60.479	62.795	54.661	57.884
	Income/Lab.Unit	€	38.107	36.185	40.575	42.888	37.784	39.966
	Income/Livestock Unit	€	639	578	711	720	640	649

GFI = Gross Farm Income.

Source: Own analysis

The economic size and the productivity of the sample are higher than that of the benchmark group. Area, dairy quota and labour unit of the sample are significantly higher compared to the benchmark group before investment (1998/1999), and much higher than the average of dairy farms in the Walloon Region. The same is true for the four income indicators that have been considered.

Over this six-year period, the gap between the two groups has narrowed significantly, as shown in Table 2. They end up with the same area, and almost the same labour unit. The decrease in labour (expressed in labour units) is much more important for the sample than for the benchmark group.

**Table 2:** The difference of the indicators between the sample and the benchmark group over the six-year period

Difference (Sample - Benchmark group)		1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
	Diff Area	ha	3	5	2	2	0
	Diff Dairy quota	l	46.872	52.558	38.888	31.542	31.501
Sample	Diff Labour Unit		0,08	0,08	0,02	0,05	0,01
versus	Diff GFI	€	12.979	13.151	11.651	12.384	10.389
Benchmark	Diff Fam.Farm Inc.	€	10.384	9.417	5.792	7.187	3.976
group	Diff Inc./Lab.Unit	€	5.437	4.315	3.159	4.039	2.143
	Diff Inc./Livestock Unit	€	59	41	24	45	-3

Source: Own analysis

Regarding income indicators, the difference between the sample and the benchmark group decreases over this period. It remains significant regarding gross farm income (GFI). Farm income of the sample, compared to the benchmark group, was some 10,000 € higher before investment. The difference narrowed down to some 3,300 € three years after investment. Productivity, measured by income per labour unit was some 5,400 € higher for the sample before investment and only half of it, (about 2,470 €) three years after investment.

The comparison of the sample to the benchmark group does not show a more positive evolution of the indicators for the sample over this period. On contrary, initial difference between the two groups is narrowing down over this period.

### 3.3 Results from farm survey

The field survey carried out among 17 farmers stresses the importance of qualitative factors related to the decision to invest in a dairy unit. The impact of this type of investment on working conditions is undeniable. The following paragraphs summarise the results of the field survey on selected points.

#### a) *Impact on farm income*

The decision to invest was not primarily motivated by the wish to improve the income or to generate more value, but much more to improve working conditions.

#### b) *Impact on working conditions*

The investment mainly allowed the improvement of working conditions. More precisely, the opinions collected underline the following aspects:

- important time saving for milking,
- improvement of the quality of the care given to the animals and of their monitoring,
- a decrease of the workload related to foddering,
- less stress for the animals related to the improvement of their well-being and thus more facility to manage the herd.

**c) *Impact on the sustainability of the farm***

All farmers underlined the fundamental role of investment to maintain a competitive and sustainable holding. In addition, all farmers also mentioned that support was insufficient, especially in the cases of setting-up of young farmers.

**d) *Impact of the support on the decision to invest***

The effect of support on the decision to invest varies. Nevertheless, support does not launch an investment which would not have taken place without support. In general, the subsidies in interest rates do nothing but accelerate or amplify an already existing project.

The type of support “subsidy of interest rates“ remains interesting in its principle for the large majority of farmers, although the differential of rate is not very significant as interest rates are low. The support reassures the banking partners.

## **4 Conclusions**

A first research that followed the mid-term evaluation recommended a significant simplification in the evaluation procedures. It suggested the use of a small number of key indicators. The question was raised whether income indicators, especially gross farm income, could be such a key indicator at the EU level.

The quantitative research showed little evidence of a causal link between investment and improvement of income. We note, however, that the time span used is short and no data was available for a relevant benchmark group.

The main impact of farm investment is to maintain the farm activities, but not necessarily to improve income. It appeared that it mainly improved working conditions and indirectly productivity, because less labour is needed for the same tasks.

Hence, income indicators do not seem to be the only relevant indicators in order to measure the effect of investment support. Indeed, the research showed that under the conditions of evaluation (short time span, no relevant benchmark group with accountancy data, etc.), no direct link between investment and improvement of income can be found.

However, this should not lead to the conclusion that investment support is useless or not effective. Investment and its support are essential for the sustainability of farms. Farms that are operating as a going concern are investing on a permanent basis in order to stay competitive and at the same time to be able to respect relevant environmental and quality standards, as well as to provide attractive working conditions.

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# Implementation of Farm Investment Support in Italy

## Mid-Term Analysis

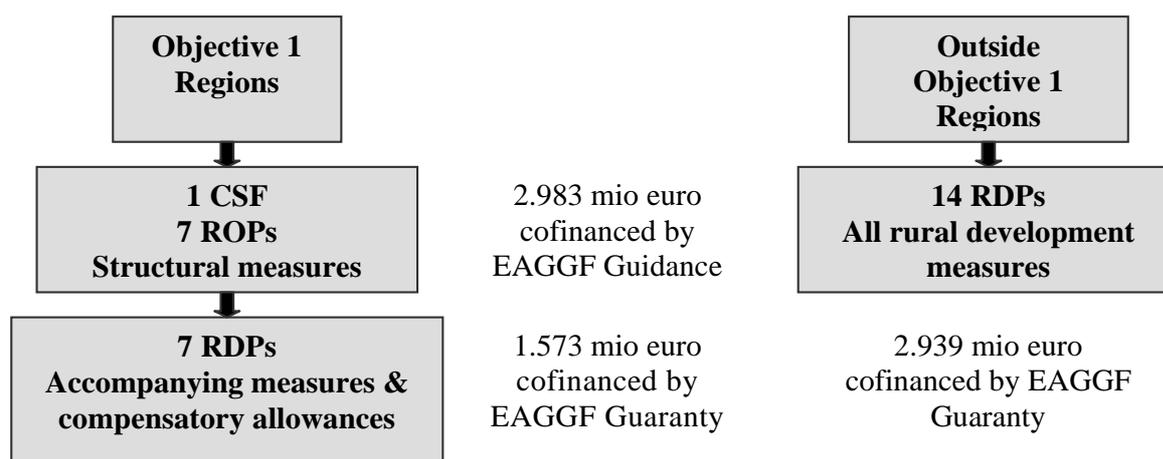
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### 1 Introduction

In Italy, a recent process of devolution towards regional authorities led to the regional management of community programmes for rural areas. This process caused a fragmentation and a regional diversification of rural development policies. As a matter of fact, all the Regions in the Centre-North of Italy apply measures as part of a comprehensive Rural Development Plan (RDP) for the whole region, cofinanced by the EAGGF, Guaranty section. Within Objective 1 Regions, RDPs include only accompanying measures while other rural development measures are integrated in Structural Funds programming (Regional Operational Programme) and cofinanced by the EAGGF, Guidance section.

**Figure 1:** The programming system in Italy



Source: Alessandro Monteleone, Daniela Storti, INEA, Rural development policy in Italy after Agenda 2000: first results for the period 2000-2003.

Table 1 provides for an overview of the financial flows of the investment support in the framework of the Rural Development Programme in Italy.

**Table 1:** Incentives to the agro-food sector in Italy: programmed and granted resources (2000-2006)

	Programmed public expend.		Granted public expend.		Spending capacity
	mio €	%	mio €	%	%
Investments in agricultural holdings	2,616.0	18.2%	1,089.0	7.6%	41.6%
Setting up of young farmers	895.4	6.2%	639.3	4.5%	71.4%
Improving processing proc. & market.	1,225.9	8.5%	577.8	4.0%	47.1%
<i>Total "Subsidies for competitiveness"</i>	<i>4,737.3</i>	<i>33.0%</i>	<i>2,306.1</i>	<i>16.1%</i>	<i>48.7%</i>
<b>Total RD programming</b>	<b>14,352.5</b>	<b>100.0%</b>	<b>8,124.8</b>	<b>56.6%</b>	<b>56.6%</b>

Source: INEA processing on MIPAF-AGEA-IGRUE data.

With a total public funding of 14,352.5 million Euro available for all rural development measures in the Italian programme, the total payments for the 2000-2006 period to date reached 8,124.8 million Euro, which translates to a spending capacity of 56.6 %.

Among the “incentive measures” of the programme it’s clearly evident that Investment on farms is the one with the highest support level, although with a low spending capacity.

This paper intends to deal with farm investment support and its implementation in Italy; limits and best practice of the current implementation of the rural policies, and the current rural policy management system.

## 2 Overview of the measure Farm Investment Support in Italy

### 2.1 General information

In Italy, the investments on farms have been supported through a specific measure inside the ROPs, for the outside Objective 1 regions, and in the RDPs, for the other regions, on the basis of the 1257/99 EC Reg. The latter sets some priorities, namely: contributing to the improvement of farm incomes, product quality, working- and production conditions. In order to reach these goals the measure supports the investments for: cost reduction, conversion of production to organic farming, improvement of product quality, environmental protection, animal health and -welfare protection, diversification of farm activity. As preconditions for support, farm holders have to show:

- 1) an adequate profitability of the farm,
- 2) the respect of the basic requirements of animal health and -welfare rules and
- 3) adequate knowledge and professional skills.

Finally, because of the general objective of market balance investments are restricted to products with adequate market outlets or to a qualitative improvement (not a growth of volumes or areas).

Furthermore, the regional authorities, in order to ensure compliance with regulations, point out:

- 1) eligible category of beneficiary<sup>1</sup>,
- 2) share of the public support,
- 3) criteria for profitability and compliance with environmental, animal health and welfare rules,
- 4) eligible sectors,
- 5) local priorities and
- 6) eligible support ceilings.

## **2.2 Sectors of concern and type of eligible investments**

With regard to the Objective 1 regions, the productive sectors of concern are the strategic ones for the agro-food sector. The main sectors included are indeed: fruit and vegetables, oil, cereals, wine, viticulture. Another important sector is the animal breeding, meat production (mainly cattle), sheep and poultry, and for milk production, buffalo calf, and sheep.

In addition, there are also minor or niche sectors, namely: the floriculture sector and hardy nursery stocks, scheduled from all the regions, and even minor breeding (as bees, horses and wild fauna in Basilicata, Sicily and Sardinia), minor mountain crops (Molise), officinal and industrial plants (Sardinia and Sicily), sugar beet (Sardinia), carob trees, manna<sup>2</sup>, and small fruits (Sicily).

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<sup>1</sup> Eligible beneficiaries are the single or associated farmers working on the regional territory and committed to run the farm for at least 5 years or not to change the use of the subsidized goods for 5 years (movable property) or 10 years (real estate). According to the civil code, a farm holder is anyone engaged in activities in land management, forestry, livestock farming and related activities. Farm holders are requested to have adequate knowledge and professional skills.

<sup>2</sup> The term 'manna' refers to a secretion from various plants, but especially the Ash *Fraxinus ornus* (manna or flowering ash) of Southern Europe.

The outside Objective 1 regions show choices slightly different from the Objective 1. Here the fruit and vegetables sector is the most important one, while the oil sector is eligible only for 8 regions. The beef and veal sector is largely important for all regions, as well as the sheep, the poultry and the pig production. Dairy cattle breeding is important but sometimes implemented together with minor types of breeding in the following regions: Emilia-Romagna, Friuli (ostrich breeding), Lazio (horse breeding), Marche, Toscana (breeding of other species, e.g. pigeons as well as wild species), Veneto. The floriculture sector and hardy nursery stocks are eligible in all RDPs, apart from Abruzzo, while cereal production is eligible in half of the regions.

The financial programming doesn't include a sectoral breakdown as to give the regions more flexibility in the implementation of the programmes. The local authorities have indeed the opportunity to choose the eligible sectors, providing the adequateness of the market outlets.

Generally, the most frequent investment involve:

- (1) actions of reorganization, restructuring, rearrangement of plants and factories,
- (2) first purchase of livestock,
- (3) interventions of land management and rural building stock,
- (4) procurement costs of machinery,
- (5) facilities and equipment reducing costs and quality improvement,
- (6) interventions of adjustment for compliance with the environmental requirements,
- (7) diversification and integration of the farm incomes, also through Measure VII (Processing & Marketing),
- (8) introduction of voluntary systems of quality certification,
- (9) planting or replacement of perennial trees and
- (10) purchase of computerization facilities for the farms.

Ultimately, in the financial allocation of the resources, the regional administrations specify some priorities by type of projects. In the Southern regions, these priorities consist, in particular, of support for young farmers and women, filiere projects or projects characterized by integrations and concentration in addition to projects aiming at the environment protection and quality improvement. The central-northern regions instead identify their priorities as the LFAs, farms run by young people or farms where agriculture is the full-time profession, projects concerning organic farming or other quality productions, or projects of farms complying with the environmental standards.

### 3 The implementation of rural policy in Italy

#### 3.1 The EAGGF intervention in the ROPs of the Objective 1 regions

The EAGGF intervention in the regions of Objective 1 is only part of the total public intervention (EU, National and Regional funds). The total public funds programmed in the 2000-2006 CSF (Community support framework) of the Objective 1 regions are more than 46 billion € (see Table 2). Of these 5.6 billion €, about 12% of the total funds, derive from the EAGGF (33 % from ERDF, 6.7 % from ESF and 0.7 % from FIFG).

**Table 2:** Total expenditure of the Structural Funds in Italy for the 2000-2006 programming period (1000 Euro)

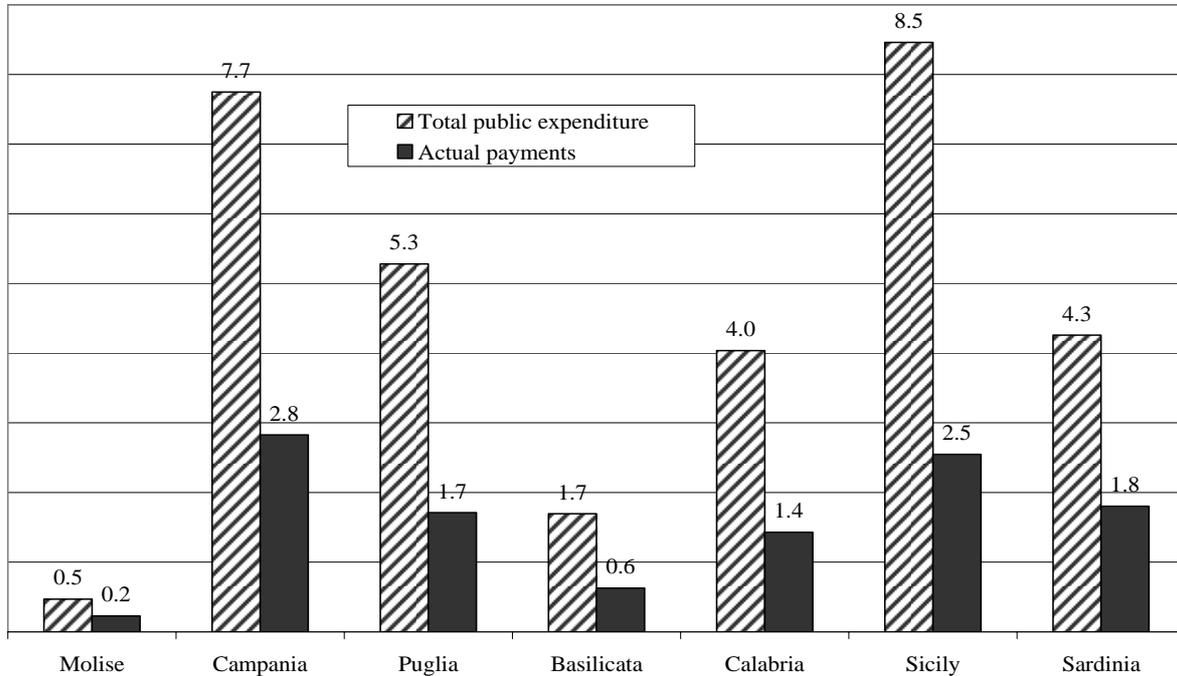
	<b>Total expenditure</b>	<b>%</b>
<b>Funds</b>	<b>46,073.796</b>	<b>71%</b>
ERDF	32,934.845	51%
ESF	6,774.294	11%
EAGGF	5,604.505	9%
FIFG	760.152	1%
<b>TOTAL FUNDS</b>	<b>64,506.944</b>	<b>100%</b>

Source: Ministry of Economy and Finance data (last update October 31st 2005).

The CSF is divided between the regional and national Operational Programme (OP), which respectively account for 32 and 14 billion Euro. Moreover, the EAGGF Guidance funds in the ROPs are a small part (about 12 %) of Italy's total financial support within the CSF for the Objective 1 regions. In order to evaluate the importance of the measures, we used the following data on the ROPs implementation by region, by measure and then by progress in Farm Investment support.

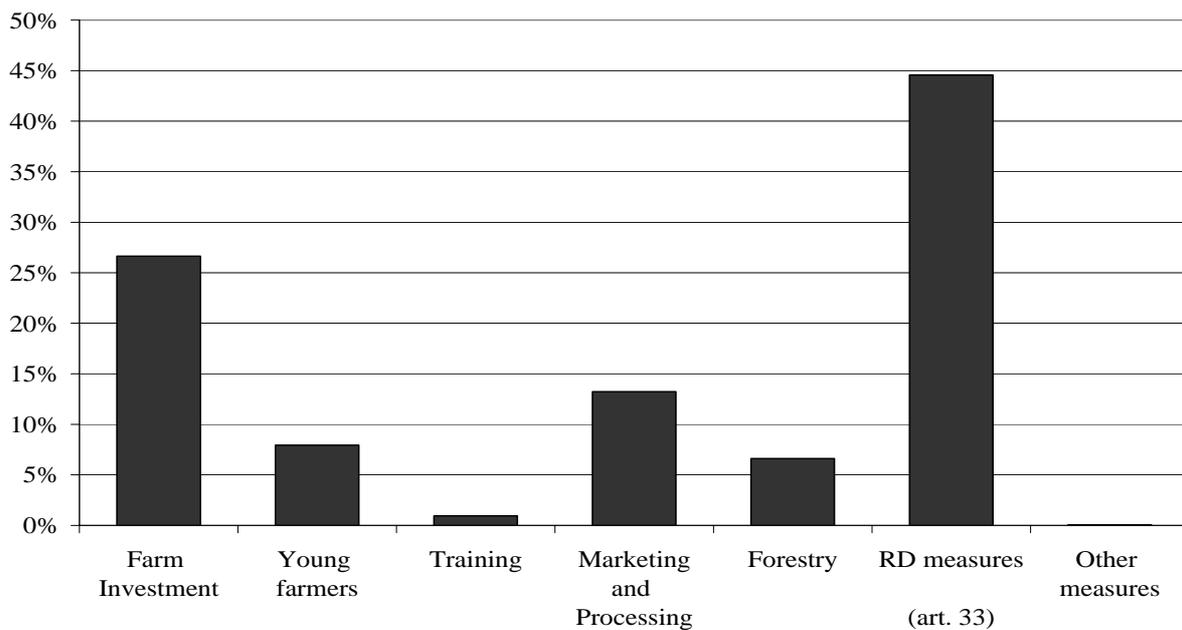
In Figure 2, the total OP expenditure at the regional level is depicted. It shows a different degree of spending in terms of available funds. The region with the highest programme spending is Sicily, which accounts for about 25 % of the total funds (about 8.5 billion € for the 2000-2006 period, with a spending capacity of 2.5 billion € at the end 2005). Among the other regions, Campania (18 %) and Puglia (16 %) take the second place with 7 billion € (2.8 billion € spent at the end of 2005), and 5 billion € for the 2000-2006 period (1.7 billion € spent at the end of 2005). Molise, the smallest region in the ROPs, is the one with the lowest expenditure, with 0.4 billion € of expenditure (0.2 billion € of spent at the end 2005).

**Figure 2:** Financial implementation of the EAGGF Guidance in the Objective 1 regions (ROPs – billion euro)



Source: Own processing based on Ministry of Economy and Finance data (last update 31-10-2003).

**Figure 3:** Financial implementation of ROPs by measure

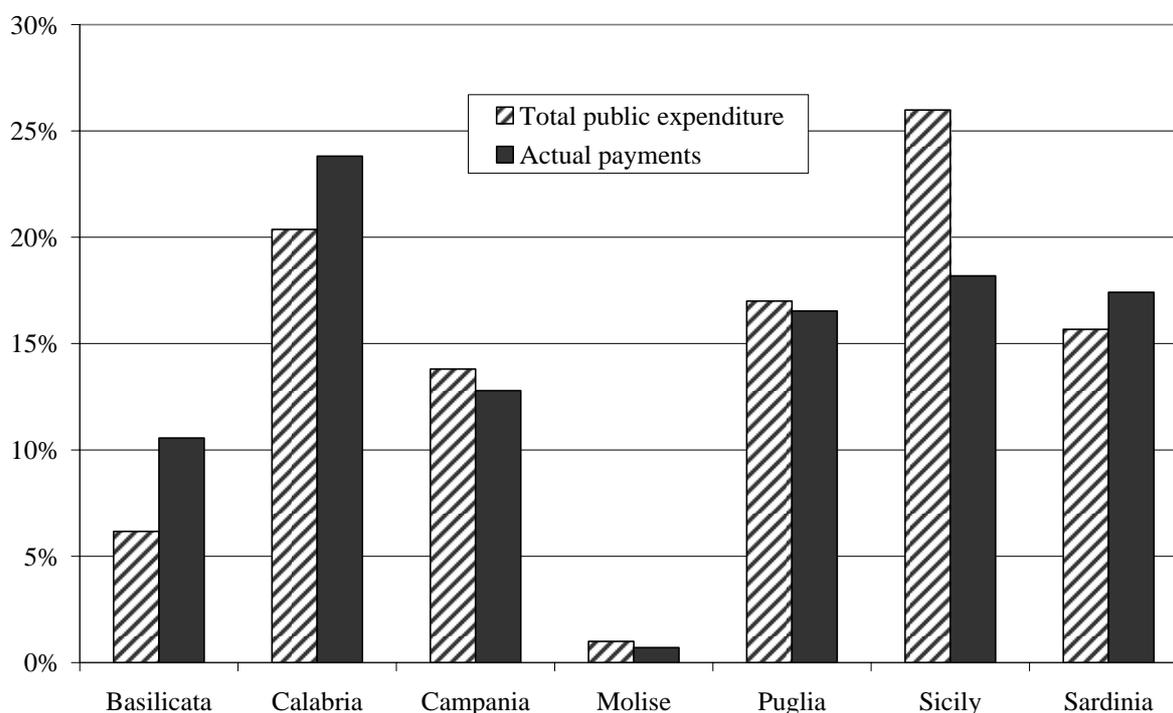


Source: INEA processing on SIRGS data (last update 31-10-2003).

At the end of 2003, the financial intervention is not homogeneous among the measures financed by the EAGGF (see Figure 3). The measure “Farm Investment” shows a programmed spending of about 26 % of EAGGF committed funds, while the RD measures have the highest programmed spending with 45 % of EAGGF committed funds. The measure “Processing & Marketing” shows good results in terms of committed funds, too. The measure with the lowest performance in terms of committed expenditure is “Training” with only 2% of total EAGGF funds.

The situation changes among the regions if we focus on the Measure I: Investments on farms (Figure 4). The progress for the Objective 1 regions shows notable differences in the programme funds at the end of 2004. Sicily has the greatest expenditure with 26 % of the total committed funds for the 2000-2006 period. However if we look at the progress, Calabria has the highest actual payments, accounting for 24 %. Finally, once again, the region with the lowest expenditure and actual payments is Molise with only 1% of the total funds.

**Figure 4:** Italy ROPs: Measure I – Investment on farms by region (2000-2006 programming period)

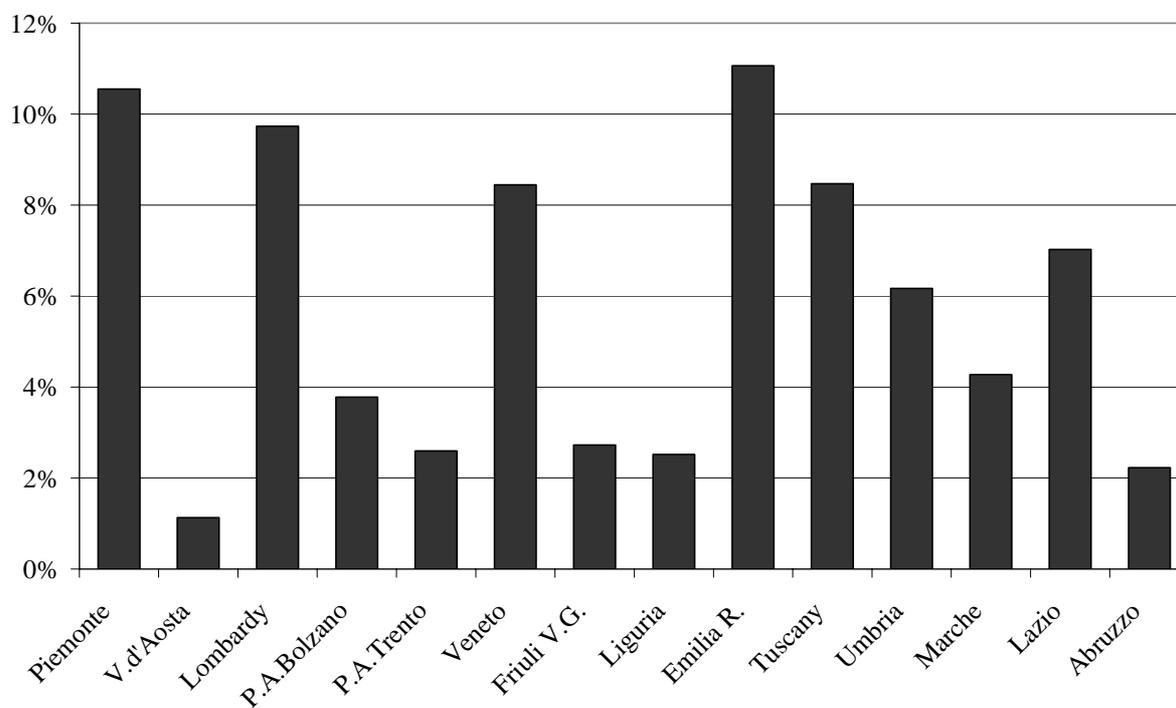


Source: Own processing based on monitoring data (last update 31-12-2004).

### 3.2 The EAGGF intervention in the RDPs of the Outside Objective 1 regions

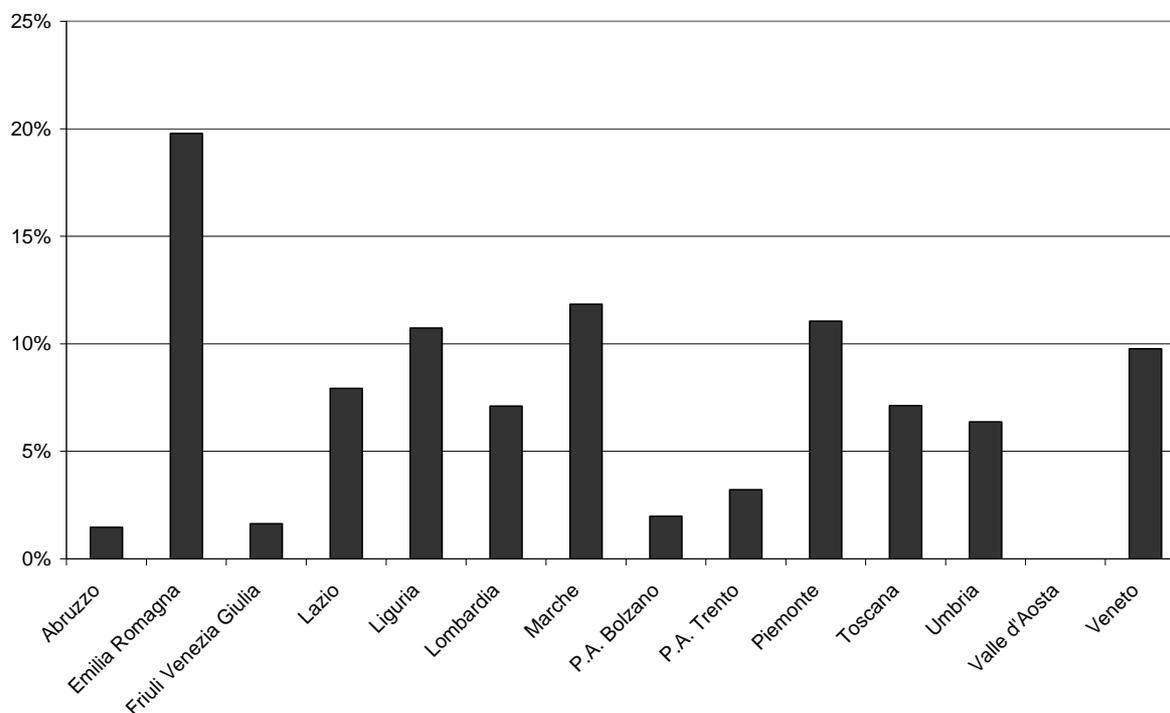
The financial progress of the RDPs shows significant differences by regions, and by measures, financed by EAGGF. The RDPs financial implementation shows different levels of granted expenditure on the total available funds (Figure 5) by regions. The Emilia-Romagna region makes the best progress with about 11 % of the total EAGGF funds spent. The Piedmont and Lombardy regions as well, have reached good results with over 10 % of granted funds committed. Molise and V.d'Aosta close the figure with less than 1% of granted public expenditure at the end of 2003.

**Figure 5:** Financial implementation of the EAGGF Guarantee in the Out-Objective 1 regions – granted public expenditure



Source: AGEA (Agricultural Payment Agency) and other regional credit agencies. Last update: 31-10-2003.

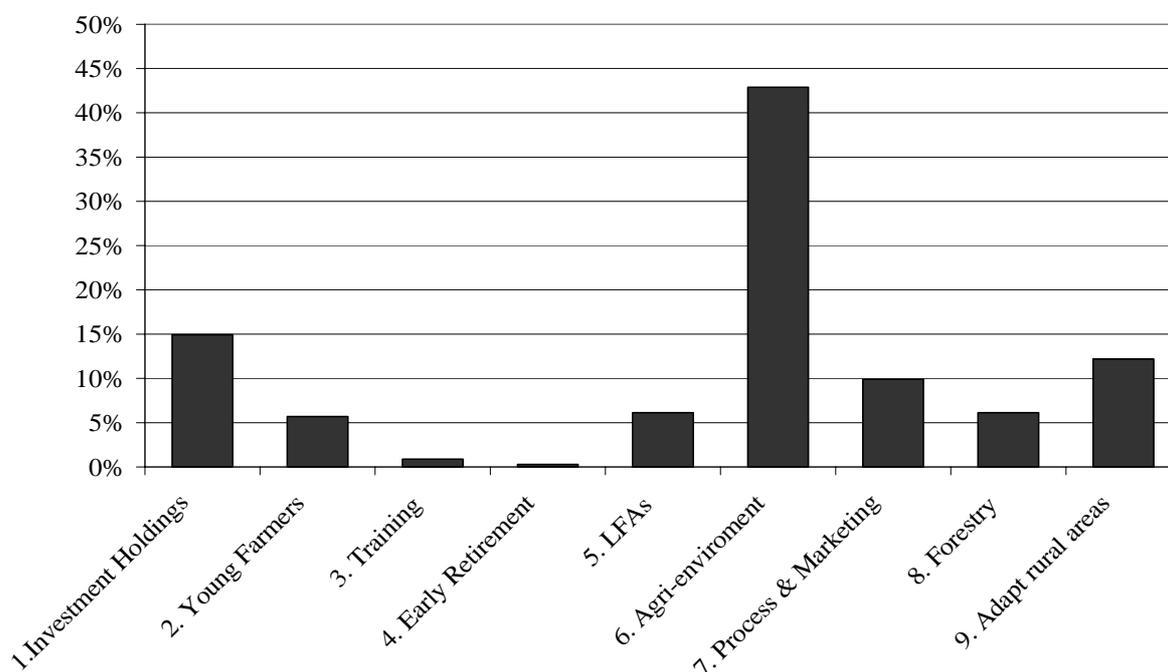
**Figure 6:** Italy RDPs: Measure I – Accumulated public expenditure Investment on farms by region (2000-2006 programming period)



Source: Own processing based on INEA data. Last update 15-10-2003.

The financial progress of Measure I in the RDPs is not uniform in the regions (Figure 6). The Emilia Romagna region has the highest programme expenditure with nearly 20 % of total committed funds. Also the Piedmont and Marche regions can count on a great amount of committed funds (12%).

The progress of the RDPs funds highlights the relevance of the “Agri-environment” measures with about 43 % of total granted funds at the end 2003. The “Farm Investment” chapter receives 15 % of the total funds as well, while the “Process and Marketing” chapter obtains 10 % of the funds. Greater resources were also invested for the measures set as Adaptation and development of rural areas (12 %). The measures with the slowest granted expenditure in the fund are “Training” and the “Early Retirement” (Figure 7). Actually, these two latter measures need further evaluation as to understand the positive effects.

**Figure 7:** RDPs: Financial implementation of RDPs by measure

Source: Our processing based on INEA data. Last update 31-10-2003.

In general, the Objective 1 regions show a greater spending than those outside the objective scheme. This can be explained through a high initial spending and fewer measures financed within the RDPs.

#### **4 Best practices in Italy for the 2000-2006 programming period**

We decided to deepen the following regional positive case studies because of their relevance and the interest of the action in terms of rural policy and on the basis of the implementation of the measure I “Investment on farms” for both RDPs and ROPs.

Our positive case studies refer to:

- (1) The measure in favour of alternative energy source in Lombardy (RDPs);
- (2) The measures for rural development in Benevento (Campania) (ROPs).

## 4.1 RDPs (2000-2006)

### *The measure in favour of alternative sources of energy in Lombardy*

Since 1997-98 the Lombardy region has developed a program to employ the forestry products and sub-products for power purposes. This program was adopted on the premises of forestry areas with a high risk of abandonment.

The starting point was a case study on the availability of biomass at the local level, as well as a technical feasibility study made by ENEL (a large partly state-owned power company). As to management, a corporation was founded with the participation by forestry partnerships, mountain communities, forestry works companies and villages.

The financial support for creating two energy plants for “biomass district (remote) heating” in the villages of Sondalo and Tirano was provided by the RDP by Measure 1.3 (infrastructures fund). The most important financial source to develop alternative sources of energy was a General Agreement between the Lombardy region and the Ministry of Environment. This agreement enabled the building of 17 stations for remote heating or biomass cogeneration.

The Tirano station produces 20 MWh with a network of more than 21 km with 393 connected houses, and a 5-year life span. The Sondalo station produces 10 MWh with a network of 15 km and 278 connected houses.

The Lombardy region has been preparing a call for expression of interest (25 mio €) to support farm measures. The plan aims at reducing production costs and making returns and/or energy saving from renewable energy sources. The goals of this plan include,

- (1) support of the measures aiming at producing energy from renewable sources,
- (2) qualifying, enhancing and diversifying the supply of energy from farming and
- (3) make the most of the action improving the environment, animal health and -welfare.

The financed projects include:

- heating appliances supplied from vegetable biomass,
- energy-saving measures on farms,
- energy-saving measures in air-conditioning of greenhouses and
- plants for exploiting biogas on the farms.

Beneficiaries of the measure are:

- (1) individual or associated farms,
- (2) processing and marketing holdings of farm products and

- (3) processing and marketing holdings in the energy sector, complying with production projects, together with the previous eligible beneficiaries (points a, b).

## **4.2 ROPs (2000-2003)**

### *Foreword*

An analysis on the financial implementation of the measures in favour of agriculture and rural development in the period 2000-2006 highlighted both different difficulties and delays according to the region and the measure in the ROP regions and RDP regions. These difficulties were related to the procedures of the call for interest and the selecting process of the applications. Moreover, structural deficiencies in the administrative and technical organization (mostly information) at the regional level showed a low relevance of the past experiences in the previous programming period (1993-99). However in this context, some positive situations (in single regions) emerge. They concern the implementation of some specific measures principally important for reaching the ROP and the CSF (Community support frameworks) targets.

### *The measures for rural development in Campania - The case of Benevento province.*

The implementation procedures of the measures in favour of the investment in farms and the services in the rural areas in Campania, have been associated to an effective governance model. The good results obtained in Campania region in the selecting process of the applications and the streamlining of the evaluation procedures have lead to a consistent implementation of almost all measures involving agriculture and rural development. In the 2000-2006 Campania ROP, there was a more relevant support to the measures in favour of rural development (Chapter IX). In the total budget of over 1,055 mio Euros of the ROP, 20 % were devoted to rural development.

The implementation of the EAGGF measures in the ROPs, the use of the new procedures was particularly evident in the province of Benevento. The reason for the success was the diffusion of the opportunities in terms of information, making aware and assistance among the local authorities, the farmer organizations, regional offices and administrators, villages and mountain communities. As a result, a kind of cooperative system integrating the previous players was created, which enabled a quick accomplishment of the EAGGF measures of the ROP in the Benevento Province.

The total number of accepted and financed applications in Benevento were 2650 farms, which is more than half of total number of farms in the region. The financial commitment constitutes over 244 mio €. In the allocation of the measures, measure 4.8: “Structural farm modernization”, was most important with over 1350 applications of which 300 were eligible (financed with over 107 mio €, one third of the total support while the rest was

attributed to infrastructure- and rural development measures). There was a steady involvement of local authorities (Provinces and Mountain Communities) and Agricultural Organizations to prepare and spread the knowledge of the measures. An analysis of the beneficiaries and the key features of the financed programs might help assess the effectiveness of the ROPs measures.

### 4.3 Comments on the rural policy management system

As mentioned above, the process of devolution towards regional authorities has created lots of plans and Rural Development Programmes. To this end, an important consideration involves the sustainability of such a programming system. Some weaknesses, due to the high fragmentation of the rural policy, can be noticed in terms of:

- **National co-ordination:** in Italy there is actually some contradiction between the Agricultural and Forestry Policies Ministry, responsible for the co-ordination of all rural programmes, and the local managing authorities, which have little authority in the decision making process. In addition, in the RDP's context, there are five different paying agencies at the regional level and one at the national level. This system complicates the managing of financial aids among central government and regions;
- **EC co-ordination:** The high number of programmes results in difficulties with respect to the coordination of the activities for the EC offices as well as for the Italian Ministry.
- **Regional negotiation capacity:** INEA made a comparison of several programmes, approved within different Member states. This study showed that, because of a low regional negotiation power in Italian regional programmes, the more restrictive interpretation often prevails at the expense of a flexible one.
- **Integration among different programmes.** In the Objective 1 programmes a clear integration can generally be found among ROPs and RDPs.

The second point is the problem of efficiency and effectiveness of RD measures. In Italy in the first half of the programming period, more attention was paid to those measures which promised a quick spending of funds (in view of reaching spending objectives) than to achieving the results identified in the rural development strategy.

On the other hand some strengths of the rural policies can be seen in:

- (1) **Organizational changes within the Managing authorities:** The INEA study underlines the positive role of the Community Support Framework in terms of defining and adopting common rules in the Objective 1 regions.

- (2) A higher awareness of the importance of establishing more efficient selection procedures of the projects with the involvement of the local administrations.
- (3) A higher awareness of the importance of the roles of monitoring and evaluation in the programming cycle.
- (4) An improved transparency in the use of public resources together with a wider involvement of stakeholders (monitoring committee, partners and local institutions).

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# **Regional Absorption Capacity of Farm Investment Support in Poland**

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## **1 Introduction**

The agricultural sector plays a great role in the economy, society and environment in Poland, but is much diversified in terms of geography and structure. Since the early nineties, the opening and liberalisation of the Polish economy have exposed Polish agricultural producers to stronger competition. The accession of Poland into the European Union (EU) and the incorporation of the Polish agri-food sector into the Common European Market are widening the marketing opportunities for Polish products but, at the same time, intensifying competition. The position of Polish farms was jeopardised at the moment of accession by an inadequate adjustment of businesses to certain quality and safety requirements and the need for investments. EU commitments made under World Trade Organisation (WTO) and the expected direction of the Common Agricultural Policy (CAP) reform of the EU will lead to a wider opening of the EU market to world markets and will force European farmers to increase their competitiveness.

Poland has defined the following strategic objectives for the rural development (MARD 2004a):

- Improving the development to enhance the attractiveness of rural areas for inhabitants and entrepreneurs.
- Strengthening economical sustainability of the farming sector while preserving the environment.
- Increasing competitiveness of the food processing sector by improving food quality and adapting the supply to market requirements.

These objectives are to be achieved within the two programmes supporting the food economy: the Sectoral Operational Programme for “Restructuring and Modernisation of the Food Sector and Rural Development” (SOP) and the “Rural Development Plan” (RDP). Currently Poland operates several programmes co-financed by the EU and supporting the Polish food economy. These are in various development or implementation

phases and are rather closely related to rural development programmes. In 2004-2006, support measures for farm investment mostly come from the Sectoral Operational Programme, and in 2006-2013, they are likely to be included in sixteen Regional Development Plans, each covering one voivodship (regional administrative districts). All the programmes combine funds from various sources. These include – apart from the EU budget – the Polish public resources (the national budget and local government budgets) as well as beneficiaries' own resources (Rowiński and Wigier 2006). The role of a paying agency and an implementing authority for financial resources from the Structural Funds is taken over by the Agency for Restructuring and Modernisation of Agriculture (ARMA).

The paper focuses on an estimation of the impact of the measure: 'Investment in agricultural holdings' on Polish farm development. To more broadly appraise the scale of regional differences in the absorption of structural funds, the measures 'Setting up young farmers' as well as 'Adjusting agricultural holdings to EU standards' carried under RDP will also be considered as they are aimed to help in modernisation process of Polish agricultural holdings.

Regional absorption capacity can be defined as the capacity of the given region to effectively utilise the flowing external financial resources (primarily concerning assistance funds and credits). The absorption capacity generally depends on the conditions on which these resources are made available, and on the level of the socio-economic development of the region (Metra and Pezold 2003). In the wide context of EU Structural Funds, general absorption can be considered in three levels: macroeconomic, administrative and financial (Horvat and Maier 2004):

- Macroeconomic absorption can be measured in terms of Gross Domestic Product (GDP) related to the Structural Funds allocated. Properly absorbed funds at the macro level should generate both short and long term socio-economic development.
- Administrative absorption capacity is the ability and skills of central, regional and local authorities to prepare acceptable plans and programmes and to properly co-ordinate, finance and supervise implementation.
- Financial absorption capacity is the ability to co-finance EU-supported programmes and projects, to plan and guarantee these national contributions in multi-annual budgets, and to collect these contributions from several partners interested in a programme or project.

Absorption capacity of Structural Funds also can be presented on two other levels: administrative and beneficiary level. Capacity of administrative absorption is formed by the level of information, technical assistance and coordination while implementing structural programmes. It is the ability to create demand of the potential beneficiary group for external funds and to help to satisfy it properly using legal framework, information,

advisory and technical assistance. This demand is created pursuant to the objectives defined in the national development strategy and is a part of policy implementation.

The capacity of beneficiary absorption is the ability of people, firms and regional or local authorities to find and use all opportunities for the improvement of an economic (also social) situation using external funds. It is closely combined with entrepreneurship as an attribute of every manager. Farm or local authority 'managers' can use the possibilities of public support to improve their activities.

In the process of absorbing the Structural Funds, the role of policy-makers is to precisely define the beneficiary group and the objectives of each programme which is understood as an anticipated strength and scope of policy impact on expected changes in economy. Furthermore policy makers also need to provide all the technical support for absorption process by intensive information campaigns (about available funds and application procedure). Finally they are also responsible for controlling the implementation results. Therefore the best approach to implementation of support programmes is to provide clear objectives, to state an accurate beneficiary group and to provide them with a maximum of information and technical support.

## **2 Investment in agricultural holdings in 2005**

The measure for investments in agricultural holdings focuses on farm modernisation projects leading to the adjustment of farms along the principles of operation in the single market. Public funds support investments focused on increasing farm income, enhancing farm competitiveness, adjusting the farm production profile, and adapting the product quality to market demands. Further the aim of the measure is to improve food safety, animal welfare, environmental and working safety standards.

Financial aid is granted to:

- farm buildings construction, their modernisation or reconstruction leading to the improvement of their functionality,
- the purchase or installation of machinery, equipment and instruments for agricultural production, conservation, storage and market preparation of agricultural produce,
- the purchase of livestock buildings or farm buildings for agricultural production, if the purchase is part of the planned investment and is closely related to investment objectives,
- the establishment of perennial plantations,
- the equipment of pastures,

- the purchase of the basic herd of breeding animals,
- the purchase of land<sup>1</sup>,
- the construction, purchase and installation of field irrigation systems, and
- investments for environmental protection and the improvement of animal welfare and hygiene standards in agricultural production.

It is expected that approximately 17,000 projects will be implemented within the scope of this measure. That number includes projects implemented on the farms of women farmers (about 3,000 projects). About 5,000 projects implemented under this measure should include the investments aimed at meeting the minimum environmental protection, hygiene and animal welfare standards (MARD 2004b).

Following the data provided by Agency for Restructuring and Modernisation of Agriculture, total eligible investment costs spent for the measure in 2005 were 488 million Euros whereof the public expenditure amounted to 263 million Euros (EAGGF contribution was 142 million Euros). Average intensity of support counted as the share of total public expenditure of total eligible costs was 54 %. 88 % of applications approved for realisation (more than 8,000 approvals) in 2005 were focused on the purchase or installation of production machinery and mobile equipment (Table 1).

More than half of the investment support already helped or will help farmers to improve an organisation of agricultural activity and to reduce production costs. Around 15 % of investment projects in 2005 were aimed at increasing the competitiveness of farm production (Table 2). Total financial resources allocated for the implementation of the measure in 2004 – 2006 are 597 million Euros, which is 35 % of total programme (SOP) budget.

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<sup>1</sup> The purchase of land is eligible only if it is a part of the planned investment and if it is closely related to investment objectives (according to the Commission regulation (EC) No 1145/2003 of 27 June 2003 amending Regulation (EC) No 1685/2000 as regards the rules of eligibility for co-financing by the Structural Funds).

**Table 1:** Number of applications approved for realisation by type of investment for the support measure ‘Investment in agricultural holdings’ in 2005

Type of investment	Number of applications approved for realisation	Average intensity of support %	Average amount of support €	Total beneficiaries' expenditure €	Total eligible costs €	Public expenditure	
						Total €	from EAGGF €
Buildings	661	52	34,575	21,154,135	44,008,515	22,854,379	12,341,365
of which							
livestock buildings (Cattle)	57	56	38,097	1,673,652	3,845,209	2,171,557	1,172,641
pighouses	87	52	35,278	2,852,002	5,921,152	3,069,150	1,657,341
other livestock buildings	88	51	42,713	3,615,081	7,373,844	3,758,763	2,029,732
greenhouses and related equipment	102	49	37,694	3,926,161	7,770,993	3,844,832	2,076,209
other farm buildings	327	52	30,612	9,087,240	19,097,317	10,010,077	5,405,442
Plant and mobile equipment	8,531	54	26,691	193,191,221	420,893,616	227,702,395	122,959,294
Purchase of livestock	177	55	27,214	3,965,459	8,782,409	4,816,950	2,601,153
Establishment of perennial plantations	330	55	15,437	4,213,468	9,307,695	5,094,226	2,750,882
Facilities for manufacture and direct sale of farm products	61	50	23,942	1,463,629	2,924,107	1,460,477	788,658
Facilities for the diversification of activities on the holding	3	60	6,622	13,244	33,111	19,866	10,728
Other	36	51	32,815	1,145,526	2,326,861	1,181,334	637,921
Total	9,799	54	26,853	225,146,684	488,276,313	263,129,629	142,090,000

Source: ARMA Monitoring Table for 1.01.2005 – 31.12.2005, exchange rate: 1 Euro = 4 PLN.

**Table 2:** Type of investment projects of measure “Investments in agricultural holdings” in 2005

Project type	Number of completed projects	Total eligible costs €	Intensity of public support %	Public expenditure	
				Total €	from EAGGF €
Increase of agricultural income	401	17,978,681	54	9,751,388	5,669,884
Reduction of production costs	355	19,362,981	53	10,302,393	5,941,064
Improvement of competitiveness	396	19,945,824	54	10,693,933	6,153,315
Adjustment of production profile to market requirements	25	689,500	54	372,544	210,412
Improvement of organisation of agricultural production	1,414	63,759,191	55	34,858,044	19,684,647
Improvement of product quality	134	4,226,633	52	2,218,269	1,289,395
Increase of value added	8	408,750	52	211,164	133,491
Improvement of standard in agricultural holdings	85	2,968,653	55	1,632,494	922,103
in terms of					
hygiene	7	298,932	55	163,398	89,565
enviromental protection	41	1,415,902	56	788,380	445,935
animal welfare	29	1,029,067	53	546,332	309,679
Total	2,818	129,340,212	54	70,040,229	40,004,310

Source: ARMA Monitoring Table for 1.01.2005 – 31.12.2005, exchange rate: 1 Euro = 4 PLN

The possibilities given to Polish farms will help to improve product quality, work conditions, environmental protection, and animal welfare. In many cases the type of investment is determined by a lack of investments in the first decade after Polish transition and also by needs of adjusting the effectiveness and the quality of production to compete at the Common European Market.

The ARMA monitoring report of implementation of the measure includes group of indicators useful in estimating the scale of the measure's impact on changes in farm production conditions. In 2005 the projects co-financed with public funds covered modernisation or construction of more than 100,000 m<sup>2</sup> of production facilities, mostly greenhouses. Farms also improved their production scale by purchasing livestock and machinery (Table 3). This proves the scale of investment omissions in the past years.

**Table 3:** Monitoring indicators of the support measure “Investments in agricultural holdings” in 2005

Indicator	Value
Surface of production buildings built/modernised (m <sup>2</sup> )	105.542
of which	
livestock buildings (Cattle)	1.400
pighouses	3.879
other livestock buildings	5.142
greenhouses and related equipment	73.398
other buildings	21.724
Surface of manure plates (m <sup>2</sup> )	1.531
Capacity of the constructed manure storage sites (m <sup>3</sup> )	1.231
Number of plant and mobile equipment purchased	9.059
of which	
agricultural tractors	1.596
plant and mobile equipment (except for tractors) for crop production	6.240
plant and mobile equipment for animal production	762
spare and additional parts of plant and mobile equipment	461
Number of livestock purchased	58.966
of which	
dairy cows	760
meat cattle	200
pigs	48
poultry	56.293
other animal production	1.665
Area of perennial plantations established (ha)	620
Surface of built/modernised facilities for manufacture and direct sale of farmproducts (m <sup>2</sup> )	10.981

Source: ARMA Monitoring Table op.cit.

### 3 Regional absorption of farm investment support in Poland

Similar to ‘Investment in agricultural holdings’ two other measures can be regarded as investment support for Polish farms:

- ‘Setting up of young farmers’. This measure provides aid in the form of a premium paid to young farmers who start their own farming business. Support granted under this measure will accelerate the process of generation exchange in agriculture by providing young farmers with financial means that enable them to take up an independent agricultural activity and to modernise holdings that are taken over. This will, in turn, contribute to enhancing the economic condition of these farms. In particular the production will be adjusted to market requirements, product quality will be improved, economically efficient technologies will be utilised which comply with the occupational safety, hygiene, environmental protection and animal welfare requirements.
- ‘Adjusting agricultural holdings to EU standards’, carried under the RDP, is aimed to facilitate the adjustment of holdings to environment protection, public health, and animal health, and animal welfare standards of the EU. Support under this measure is granted to help farmers adapting to the demanding standards based on Community legislation and shall contribute to more rapid implementation of these standards (MARD 2004b).

Table 4 shows that until the end of February 2006 the total number of applications submitted within the measure ‘Investment in agricultural holdings’ exceeded 27,000, and the total amount of investment projects was worth 712 million Euros (119 % of appropriations targeted for the measure in 2004 - 2006). This support opportunity was very popular and the demand for funds for investment in improving production assets was high. The real impact of this measure can be estimated by the number of already signed agreements regarding the granting of financial aid: 11,501 with a total amount of 300 million Euros (50 % of appropriations targeted for the measure in 2004 - 2006). Thus total absorption capacity is at least one fifth more than total allocation for this measure for Poland in the period 2004-2006 and real utilisation of this limit is 50 % so far.

**Table 4:** The number and amount of applications submitted within the measures ‘Investment in agricultural holdings’, ‘Setting up of young farmers’ and ‘Adjusting agricultural holdings to EU standards’

Measure:	‘Investment..’ (SOP)				‘Young farmers’ (SOP)				‘Adjustment to EU standard’ (RDP)			
	Applications		Signed agreements regarding granting of financial aid		Applications		Signed agreements regarding granting of financial aid		Applications processed		Signed agreements regarding granting of aid	
	Number	mio €	Number	mio €	Number	mio €	Number	mio €	Number	mio €	Number	mio €
Dolnośląskie	1.042	36,65	438	15,28	839	10,49	608	7,60	685	5,42	416	3,03
Kujawsko-Pomorskie	2.383	62,56	1.037	26,65	1.457	18,21	1.132	14,15	13.118	115,31	10.780	93,80
Lubelskie	2.429	50,21	1.115	23,70	2.085	26,06	1.540	19,25	3.026	23,58	2.412	17,58
Lubuskie	338	13,47	207	8,38	306	3,83	219	2,74	558	6,03	449	4,26
Łódzkie	2.869	60,96	915	19,74	1.774	22,18	1.305	16,31	5.795	46,37	5.012	38,93
Małopolskie	1.536	30,14	705	14,74	723	9,04	531	6,64	943	6,56	624	4,21
Mazowieckie	4.729	113,70	1.172	25,46	3.040	38,00	2.347	29,34	14.009	137,71	7.751	69,56
Opolskie	734	22,12	406	12,55	531	6,64	401	5,01	652	6,74	505	4,85
Podkarpackie	738	19,66	435	11,08	525	6,56	371	4,64	700	4,99	454	3,32
Podlaskie	2.165	57,07	1.072	26,09	1.516	18,95	1.155	14,44	6.088	55,80	5.515	50,77
Pomorskie	1.076	39,55	606	22,01	772	9,65	571	7,14	4.748	36,61	3.840	29,41
Śląskie	668	19,33	406	10,61	424	5,30	339	4,24	665	5,51	348	3,00
Świętokrzyskie	1.857	32,37	959	16,53	745	9,31	624	7,80	1.413	10,04	1.052	7,36
Warmińsko-Mazurskie	1.101	42,00	556	20,97	962	12,03	700	8,75	4.403	46,49	3.142	32,81
Wielkopolskie	3.497	112,67	1.472	46,83	2.554	31,93	1.849	23,11	15.055	143,92	8.991	88,43
Zachodniopomorskie	671	25,65	486	17,91	586	7,33	433	5,41	1.324	11,96	354	3,33
POLAND	27.162	712,45	11.501	300,62	18.253	228,16	13.692	171,15	73.182	663,04	51.645	454,64

Source: ARMA, data for ‘Adjusting agricultural holdings to EU standards’3/04/2006; ‘Investment in agricultural holdings’, ‘Setting up of young farmers’ – 28/02/2006.

Even greater was the popularity of financial aid applications within measure ‘Setting up of young farmers’. The total number of applications for support was 18,253, which amounted to investments of 228 million Euros (this is 128 % of total allocation planned for the measure in 2004 - 2006). 13,692 farm managers already signed agreements regarding the granting of financial aid of 171 million Euros in total. Total allocation for this measure is 177 million Euros for whole programming period. Hence 96 % of appropriations for the measure in 2004 –2006 has already been utilized.

Within the measure ‘Adjusting agricultural holdings to EU standards’ Polish agricultural holdings requested 663 million Euros for investments to meet Community standards (73,000 applications). Already signed decisions reach a level of 455 million Euros stemming from more than 50,000 applications.

As Poland is divided into 16 voivodships and spatial differences in the level of socio-economic development of rural areas can be observed, the absorption capacity of investment support in voivodships is affected (Chmieliński 2006). In some of the regions low demand for support and proper utilisation of the Structural Funds can be noticed. To

keep track of and evaluate the current level of regional absorption of financial aid some monitoring techniques are necessary.

One of the monitoring indicators used is the absorption demand, which is the relationship between the total value of investment projects in regions and the regional appropriations for period 2004-2006:

$$D_k = (\Sigma C_{app} / A_{k04-06}) * 100\%$$

where:

$D_k$  : absorption demand of k-measure,

$\Sigma C_{app}$  : requested funds, i.e., the total value of investment projects (applications) and

$A_{k04-06}$  : total financial resources allocated for the implementation of the k-measure.

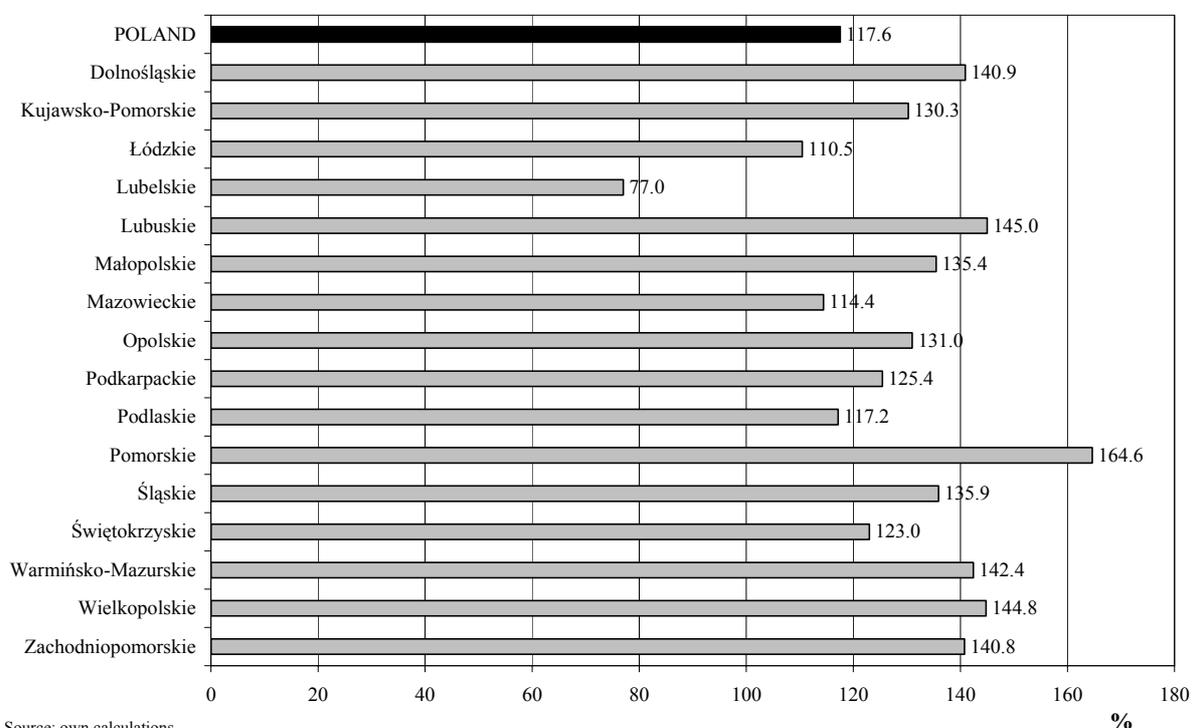
This indicator not only allows a comparative monitoring of the implementation of the programme in the different regions, but also estimates of the demand for financial aid for investments in agricultural holdings in the future. For the regions the calculation of this indicator is an opportunity to determine the leader of implementation. It is further possible to identify regions where there is a need for additional technical support in the programme realisation process or for an intensification of the information campaign among farmers.

The regional absorption capacity of 'Investment in agricultural holdings' as measured by using this indicator is shown in Figure 1. As of the end of February 2006, the total demand for investment support from the measure is 119.4 % of allocated resources for whole programming period. For this reason the application process of the measure is already closed. Hence the value of the applications exceeded the appropriation at least by 19 %. This figure helps to estimate the future demand on farm investment support but also to compare implementation results among the voivodships. The highest utilization of farm investment support can be observed in Pomorskie region. Absorption demand exceeded total regional appropriations by far and achieved a level of 164 %. This information proves the good level of information about the support opportunities and efficiency of technical help in the application process. In contrast, in Lubelskie voivodship absorption capacity is lower than expected. At the end of February 2006 the demand for support reached a level of only 77 % of the funds provided for the measure in this voivodship<sup>2</sup>.

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<sup>2</sup> The regional limits of funds were appropriated by the steering committee of the Ministry of Agriculture and Rural Development on the basis of a synthetic indicator for each voivodship. This indicator includes the arable area, the number and the economic size of farms.

**Figure 1:** Investments in agricultural holdings': relationship between the requested funds and total regional appropriations for the measure in 2004 -2006 (as at the end of February 2006; appropriation for the voivodship/country = 100)



The presented methodology of comparative monitoring of the implementation of the measure 'Investment in agricultural holdings' in different regions enables the improvement of the programme implementation process. It can also be used for the monitoring of other measures. The indicator provides valuable information about the future demand for the Structural Funds which is useful for the development of future rural development programmes and the allocation of appropriations.

#### 4 Summary and conclusions

The analysis of the utilisation of Structural Funds in measures aiming at supporting farm investment allows the drawing of the following conclusions:

The share of equipment and machinery investments from the total of supported investment projects of the measure 'Investment in agricultural holdings' amounts to 88 % of the total funds spent for the measure in 2005. Most of investments in the current programming period focus on the improvement of the working conditions and animal welfare.

A strong regional difference in efficiency of utilising investment support is the crucial challenge of the monitoring process of programme implementation. Experiences of the paying agency ARMA in regions with excellent realisation results of farm investment support should be used to develop 'best practise' guidelines for the utilisation of public support. Such guidelines should be followed in other voivodships where the absorption capacity is not satisfying. The application of these guidelines should be combined with an intensification of information campaigns (financed with technical support measure), in voivodships such as Lubelskie, to improve the effectiveness of policy impacts on farm restructuring.

Further and more detailed evaluation of farm investment support measures will be possible after three years following the end of current programming period due to 'n+2'-rule of implementation. An evaluation of the real impacts of farm investment support on the agricultural sector seems to be very difficult because of the multiplicity of objectives of investment measures.

The EU accession of Poland increased the budget available for supporting agriculture and rural areas. This support affected the product quality of Polish food. Adoption of the EU *acquis communautaire* with respect to food safety, animal health and food standards is almost completed. The EU accession process is fostering the further modernization of Polish agriculture and other sectors of the economy. The future problem of farm investment support in Poland is to decide to what extent small (family and so called 'social') farms should be supported at the expense of farms that can compete on the global market.

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# **Effectiveness and Impacts of Farm Investment Support in Spain – The Experience of the Updated Mid-Term Evaluation (2000 – 2006)**

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Spain

## **1 Introduction**

It seems obvious that farm modernization is one of the bases of rural development in Spain; in fact, it is prone to become a horizontal measure during the following period 2007 – 2013; as in most rural areas, agriculture is still an essential support of the economic activity and the social network. Thus, the patent structural shortcomings of Spanish farms must be overcome, in terms of improving their competitiveness, in order to ensure their subsistence and slow down rural depopulation. Spanish authorities are aware of this problem and are developing policies aimed at stimulating farm modernisation. Moreover, the European agricultural policies are devoting increasing interest and resources to this measure.

This paper aims at describing how the Farm Investment Support (FIS) has been applied in Spain during the period 2000–2006 and at sketching the results of the update of mid-term evaluations, carried out during 2005, in Objective 1 and Non-Objective 1 Regions. The organisational and legal frameworks are explained and followed by a description of the financial and physical execution, in terms of effectiveness of the measure. Finally, the evaluation questions formulated by the European Commission (EC) for the evaluation of the measure are answered to bring forward some of the expected impacts. The paper will conclude with some recommendations drawn from the evaluation of FIS in Spain.

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<sup>1</sup> The opinions expressed in this paper are merely personal and they neither represent the official view of the Ministry of Agriculture, Fisheries and Food nor of the evaluating company.

## 2 Organisational framework of the measure

In Spain, 17 regional Rural Development Programmes (RDP) and three national RDPs exist. Two national programmes encompass Farm Investment Support, Setting-Up of Young Farmers and Management of Irrigation Water, one for Objective 1 Regions and another for Non-Objective 1 Regions. Additionally, a third national programme regards the Accompanying Measures.

The regional programmes encompass the measures which are not included in the national programmes. They also include FIS for those farmers who do not meet the national requirements, which are described in the following section, but are, nonetheless, important in economic, social and environmental terms. For instance, in some regions there are many small farms with part-time farmers who do not employ a working unit equivalent per year. To retain these farms that reduce soil erosion, preserve the landscape and improve regional macroeconomic income, the regional governments included a FIS measure in their regional RDP.

Summing up, and considering only the measure we are dealing with, the Ministry of Agriculture programmes and evaluates the national RDPs for Objective 1 and Non-Objective 1 Regions that include FIS. Further the Autonomous Regions are responsible for the programming and evaluation of the regional RDPs, some of them including regional FIS (Table 1). Nevertheless, both national and regional RDPs are mainly executed by the Autonomous regions, since the Spanish Constitution transfers agriculture issues from the Ministry of Agriculture to the Autonomous regions (Table 1).

**Table 1:** Organisational framework of FIS in Spain

	Institution	Programme
Programming & Evaluation	Ministry of Agriculture, Fisheries and Food (NUTS 0)	Objective 1 Regions (EAGGF-Guidance) Non-objective 1 Regions (EAGGF-Guarantee)
	Autonomous Regions (NUTS II)	Regional RDPs
Execution	Autonomous Regions (NUTS II)	-

Source: Own calculation.

### **3 Legal framework of the measure**

The Spanish Royal Decree 613/2001 (MAPA, 2001) establishes the legal framework of the “Farm Investment Support” and “Setting-up of Young Farmers” measures. According to this decree, the three objectives of the FIS measure are to increase the competitiveness of agricultural products, to preserve the environment by using more environmentally friendly techniques and to improve farmers’ life and working conditions, since more modern equipment usually means better life and working conditions.

### **4 Recipients of the support**

To be able to apply for the support, all recipients have to present a technically and economically viable investment plan that ensures that the investment will be successful. The economic viability is defined as an expected income per annual working unit (AWU) higher than 4,646 Euro, which equals 20 % of the annual economic standard income and is used as a reference level. Finally, the farm has to fulfil a set of minimum standards regarding environment, hygiene and animal welfare.

Additionally to the general requirements, farmers and agrarian companies, including cooperatives, have to be distinguished. In the first case, farmers have to be professional farmers, defined as a holder whose income from agricultural activities exceeds 25 % of his total income and whose income from and labour for farm and/or complementary activities is higher than 50 % of the total income. Furthermore, the applicant has to possess adequate occupational skills and/or training to ensure the success of the investment, and the farmer has to live in a municipality close to the farm, to avoid the depopulation of rural areas.

Agrarian companies have to employ at least one working standard unit (WSU), which means one full time worker equivalent (FTE), and economic viability has to be between 35 % and 120 % of reference income per WSU. The aim of this condition is to avoid investments in not really professional farms, as well as in extremely labour intensive and profitable farms that do not require support.

#### **4.1 Type of investments subsidized by the support**

The investments supported by FIS in Spain are as follows:

- (1) Investments that improve farmers’ and farm workers’ living and working conditions.
- (2) Investments to meet market requirements and quality standards – by classifying, setting-up, transforming and commercialising in the farm.

- (3) Investments that allow a more sustainable use of inputs (especially water and energy), reduce production costs and introduce new technologies.
- (4) Investment to fulfil new minimum standards, stated during the first year before applying for the subsidy.
- (5) Investments to improve animal welfare and hygiene, land cover and environment.
- (6) Land acquisition, only when the investment plan aims at achieving the conditions of a “priority farm.” A farm is considered priority when it employs at least one WSU and its income per agricultural working unit is between 35 % and 120 % of reference income.

The following investments are not supported by the measure:

- (1) land, porcine, poultry and cattle for meeting supply acquisitions (studs, for instance, are supported) and
- (2) machinery replacement, excepting machinery shared by several farmers, machinery aged 8 years or more, or when land acquisition requires more machinery to maintain the farm’s viability (the latter, under the Autonomous Regions’ criterion). Supported machinery has to be new.

Support can be dismissed for investments aiming at increasing the production of products without favourable market prospects.

## **4.2 Amount and type of subsidies**

The maximum subsidy per investment is 90,151 Euros per AWU employed in the farm, up to 180,303 Euros, which is equivalent to 2 AWU per farm. In the case of agrarian companies, up to four partners are allowed. The maximum limit is multiplied by the number of partners, who also have to be professional farmers. In the future, according to the modification of the Royal Decree 613/2001 (MAPA, 2004) this limit could be exceeded if the investment is necessary to ensure the technical and economic viability of the farm. Additionally, the subsidy cannot be higher than 40 % of the investments or 50 % in less favoured areas. Originally, in case of young farmers (those less than 40 years old), the maximum investment support was increased by 5 percentage-points, when the investment plan is presented during the first five years after the setting-up, (MAPA, 2001). The modification of the Royal Decree 613/2001 states that young farmers can receive additional support of up to 10 %-points of the eligible investment sum, except in less favoured areas located in Non-Objective 1 Regions, where the maximum investment supported increases for young farmers by 5 percentage-points (MAPA, 2004).

In order to obtain the maximum subsidy, different types of support can be combined by the farmers as listed below:

- (1) **Direct One-time Grant**, that reaches up to 15 % of the eligible investment. This limit is increased by 5 percentage-points in less favoured areas and/or 5 percentage-points in the case of organic farming.
- (2) **Subsidized Interest Rates**: The support framework forces the farmer to take out a loan to obtain the maximum subsidy levels as described in above. The supported loans have a minimum interest rate of 1.5 % (this may be reduced to 0 % for young farmers).
- (3) **Annual Payment Diminution**: If the maximum amount of the support is not exceeded, the first payments of the loan can be completely or partially subsidised.
- (4) **Loan-guarantee**: If the bank requires a loan-guarantee, management costs of the loan-guarantee are also subsidized.

There is a limit of three plans which can be subsidized per recipient within a period of six years after the first plan has been presented. However in exceptional circumstances, a fourth plan can be accepted. If the plan changes during the execution, it is necessary to prepare a new complementary plan to explain the changes and to prove the technical and economic viability of the investment after those changes.

## 5 Methodology

The methodology applied in the update evaluation has been determined by the different evaluation guidelines and instructions established by the European Commission for the evaluation of rural development programmes (EU COM, 1999a+c, 2000 and 2002). The common evaluation framework is represented by a set of common core questions, criteria and indicators for every chapter of Council Regulation (EC) 1257/1999 (EU COM, 1999b), which should enable the EC to compare and aggregate harmonized results from all member states.

In order to facilitate the answer, the EC suggests using available data from existing sources (secondary data), such as monitoring data, farm accountancy data, farm enquiries and statistics, administrative information, as much as possible. Nevertheless, as in the German experience (Forstner and Plankl, 2005; p. 8), existing data were of limited use, or not detailed enough, to start the analysis as required by the European Commission. Although monitoring information for the third measure on farm investment support is quite homogenous, especially if compared with non-centralised measures such as the regional programmes, where every region applies its own monitoring system, it was very difficult to establish the evaluation on the monitoring data available.

For this reason ad-hoc collection of data had to be conducted. The main information sources were interviews with supported farmers and detailed on-farm case studies. Five percent of the beneficiaries were interviewed, broken down by autonomous region and orientation of the holdings. The sample was concentrated on beneficiaries from the first years of the programming period in order to ensure some maturity of investments and impacts, as the EC recommends. The purpose of farmers' inquiries was to collect data from a relevant number of beneficiaries, in order to ensure a reasonable level of representativity. Case studies of a reduced number of farmers representing the main types of investment supported by the measure allowed the analysis of specific and detailed aspects, especially concerning economic issues.

According to the EC Guidelines, questions and indicators have to be answered comparing supported with non-supported farmers (counterfactual situation), and the previous situation with the resulting situation after the support. Only net effects should be measured and the reference and target levels included in the programme should be taken into account. Similar to the evaluation experience of Forstner and Plankl (2005), there were many difficulties in meeting these methodological requirements. Counterfactual comparisons were rejected because farm accountancy data does not adequately represent non-supported farmers, and since it is difficult to obtain collaboration of non-supported farmers, e.g., for interviews. These problems were also detected by Forstner and Plankl, (2005 p. 6, p. 9). Hence it is not easy to identify a perfect "twin" farm which was not assisted by FIS, which, however, is a requirement to guarantee a precise calculation of net effects of FIS. For those reasons, efforts were concentrated on temporal comparisons, discounting price effects (with the exception of cases where changes in production or quality justify the consideration of different prices), and other transmission effects. The beneficiary's situation before the investment is included in the investment plan submitted to apply for the support. Yet an analysis of this information for all the beneficiaries could not be conducted, due to problems in gathering the investment plans, the absence of a common database and even the possibility of having "tailored" plans. Hence the problems the evaluation encountered were similar to the situation detected in Germany (Forstner and Plankl, 2005, p. 10). Nonetheless, information on context evolution (non supported farmers, market trends, etc.) and interpretation of figures was discussed with managers of the measure at the regional and local levels.

## 6 Execution of the measure

### 6.1 Financial execution and effectiveness

The two national RDPs “Improvement of Agrarian Structures and Systems” (one for Objective 1 and another for Non-Objective 1 Regions), which include the most important FIS measure in Spain, are financed by EAGGF, national and regional public funds. EAGGF-Guarantee finances the measure in Non-Objective 1 programmes and EAGGF-Guidance in Objective 1 programmes. In table 2, the financial allocation of the measure within the two national programmes is described as it was programmed. The funds are separated between national and European level.

**Table 2:** Programmed public expenditure of FIS in Spain

	Total	Public Expenditure 2000 – 2006 (Mil. Euros)		National
		EAGGF	% EAGGF	
Initially Programmed Expenditure				
Objective 1 Regions	711,71	416,22	58,5%	295,48
Non-obj. 1 Regions	246,03	110,71	45,0%	135,32
Updated Programmed Expenditure				
Objective 1 Regions	826,86	483,71	58,5%	343,14
Non-obj. 1 Regions	228,59	102,86	45,0%	125,73

Source: Own calculation.

Initially, FIS in the Spanish national RDPs had 958 million Euro in the first programmes approved by the European Commission, but the allocation was increased up to 1,055 million Euro in 2004 owing to the reprogramming and to the performance reserve.

Based on the programmed expenditure 2000-2006 and 2000-2004, financial effectiveness is calculated in terms of the commitments and the payments made up to 2004. The effectiveness is determined by dividing the commitments and the payments by the programmed expenditure for both periods (Table 3.).

In table 3 it is noticeable that the commitments have exceeded the estimations by far, not only the estimations for the period 2000–2004, but also for the whole programming period. Almost double the expectations for the period 2000-2004 are already approved. Actually, this is one of the measures with highest levels of execution within RDPs.

In terms of payments, the effectiveness is obviously lower than the commitments' effectiveness. Nevertheless, it is only worrying in Non-Objective 1 Regions, where the expectations are not fulfilled (Table 3).

**Table 3:** Financial effectiveness of FIS based on programmed, committed and paid expenditure

	Programmed		Committed 00-04 Mil. Euro (C)	Effectiveness		Paid 00-04 Mil. Euro (D)	Effectiveness	
	00-06 Mil. Euro (A)	00-04 Mil. Euro (B)		00-04 (C/B)	00-06 (C/A)		00-04 (D/B)	00-06 (D/A)
Objective 1 Regions	826,86	502,83	925,18	184,0%	111,9%	559,07	111,2%	67,6%
Non-obj. 1 Regions	228,59	171,66	249,59	145,4%	109,2%	125,20	72,9%	54,8%

Source: Own calculation.

Taking a look at the allocation of the funds within the types of subsidy (Table 4), it is noticeable that in both regions almost all the funds are more or less evenly distributed between the one-time grant, the subsidized interest rates and the annual payment diminution and that by far most plans include a combination of these three kinds of support. The loan-guarantee represents less than 0.01 % of the subsidies in both types of regions.

**Table 4:** Type of subsidies granted to applicants

	Objective 1 Regions		Non-objective 1 Regions	
	% of plans	% of subsidies	% of plans	% of subsidies
One-time grant	99,8	37,8	99,7	33,6
Subsidized interest rates	91,8	27,9	94,2	29,3
Annual payment diminution	87,1	34,4	93,5	37,1
Loan-guarantee	0,009	0,001	0,022	0,004

Source: Own calculation.

## 6.2 Physical execution and effectiveness

One of the objectives of an evaluation is to analyse the RDP in its capacity to achieve the expected objectives. The achievement of objectives can be measured in physical terms. Nevertheless, it is a difficult task, due to two problems: the absence of reference levels as they should be defined in the programmes, in order to be able to compare the results. Additionally a lack of information in monitoring systems complicates such an analysis. However, FIS is one of the measures with fairly accurate monitoring system in Spain.

For these reasons a first level of effectiveness with the realisation indicator “number of projects approved” was calculated (Table 5). In both regions, the estimations for the commitments for the period 2000 – 2004 were exceeded. Considering the whole period, only in Non-Objective 1 Regions were the initial expectations already exceeded by 2004. Comparing Tables 3 and 5 reveals that physical execution is below financial execution in Objective 1 Regions and that it is vice versa in Non-Objective 1 Regions.

**Table 5:** Number of projects in Objective 1 and Non-Objective 1 Regions

	Programmed		Committed	Effectiveness	
	00-06 (A)	00-04 (A)	00-04 (C)	00-04 (C/B)	00-06 (C/A)
Objective 1 Regions	37.458	22.779	29.786	131%	80%
Non-obj. 1 Regions	8.715	12.719	13.616	170%	156%

Source: Own calculation.

It is also important to realise that projects are located not only in areas characterised by farms following traditional productions (for instance cereals, cattle), i.e., those that need investments to improve their competitiveness, but also in very competitive regions with highly intensified farms producing vegetables, fruits, etc.

In previous programming periods, the FIS measure made an important contribution to the maintenance of jobs, with a minor impact on job creation. For this reason the national programmes included an impact indicator in terms of jobs maintained, that has been calculated based on data for “AWU before the investment” and “AWU after the investment,” which were available in the monitoring data base. The effectiveness reaching this target has been higher in Objective 1 than in Non-Objective 1 Regions, although in Objective 1 Regions public expenditure per job maintained also was much higher (Table 6). It is noticeable that although the realization of financial commitments and payments are similar in both regions for the whole period (Table 3), the realization of projects presented (Table 5) and jobs maintained (Table 6) differ tremendously. In Objective 1 Regions, 79.5 % of the programmed projects were already committed in 2004, and 108 % of the expectations in terms of jobs maintained were fulfilled, whereas in Non-Objective 1 Regions, 156.2 % of the programmed projects were committed and only 58 % of the programmed maintenance of jobs was reached.

**Table 6:** Jobs created or maintained in Objective 1 and Non-Objective 1 Regions

	Progr. jobs maintained 00-06	Jobs maintained 00-04	% jobs maintained 00-06	% women maintaining job	Public expend. per job maintained	Jobs created 00-04
Objective 1 Regions	56.180	60.659	108%	26,1%	9.216,5 €	4,4
Non-obj. 1 Regions	35.700	20.581	58%	11,7%	6.083,3 €	196

Source: Own calculation.

## 7 Impacts of the measure and evaluation questions

Once the fulfilment of the physical and financial objectives has been analysed, the next step is to appraise the impacts of FIS. At the beginning of the programming period, the European Commission defined a list of evaluation questions (COM, 2000) for every chapter of the Council Regulation (EC) 1257/99 (EU COM, 1999b) to be answered in update and ex post evaluations, in order to evaluate the impacts of FIS.

For this reason, the answers to the seven evaluation questions for Chapter I of the Council Regulation (EC) 1257/99 (EU COM, 1999b), which established the European framework for FIS, are put forward in the following.

### 7.1 To what extent have supported investments improved the income of beneficiary farmers?

Although a set of detailed questions to obtain quantitative information on income was included in the survey form, no reliable information could be gathered. Anticipating this expected output, a qualitative question about “income evolution” caused by the investment was also included. Most of the farmers interviewed experienced an important and positive effect of the supported investment on their income, especially in Non-Objective 1 Regions (Table 7). This positive effect is not only in terms of increased annual income, but also in terms of their assets. Nevertheless, there are cases in which income has not increased due to market price trends, which cancel out an important percentage of the farmers’ profit.

**Table 7:** Income effects of FIS in Objective 1 and Non-Objective 1 Regions as experienced by the beneficiaries

	Income increases	Income decreases	Income maintained
Objective 1 Regions	55%	17%	28%
Non-obj. 1 Regions	78%	6%	16%

Source: Own calculation.

## 7.2 To what extent have supported investments contributed to a better use of production factors on holdings?

The better use of production factors can be assessed by the ratio between the variation of the Gross Margin and the variation of AWU due to the support, as the subsidized investments usually do not significantly influence the utilised agricultural area. Production costs also influence a better use of the production factors, but it is difficult to collect reliable data on these costs before and after the support. Therefore, farmers' personal assessments are used again.

Case studies show that in both regions the Gross Margin (GM) of the supported holdings increased at a higher rate than the annual working unit (Table 8), which implies that farm labour productivity increased too. The ratio between GM and AWU is far higher in Non-Objective 1 than in Objective 1 Regions. In both cases, most of the beneficiaries experienced an increase of production costs, which was mainly caused by an increase of input prices. This cancels out a significant percentage of GM.

**Table 8:** Labour productivity as the ratio of the increase in Gross Margin and the increase in Annual Work Unit in Objective 1 and Non-Objective 1 Regions

	% Δ Gross Margin	% Δ AWU	% Δ GM / % Δ AWU
Objective 1 Regions	29,3%	7,4%	4,0
Non-obj. 1 Regions	21,0%	1,0%	22,1

Source: Own calculation.

The modernisation of the holdings has given rise to a better use of the production factors, especially of water. However, the profits of this better use of the inputs have been reduced, again due to increasing market prices.

### 7.3 To what extent have supported investments contributed to the reorientation of farming activities?

According to the information available in the monitoring data, the majority of the changes occurred as a shift from a production of surplus products to non-surplus products, as shown in Table 9. Nevertheless, these changes were quite rare. Hence it seems to be obvious that this measure does not induce major changes in farm orientations. The evolution of common market organisations seems to play a more important role in the reorientation of the farming activities. However, when a reorientation is demanded, FIS allows the adaptation of the holdings, although in most cases it would have been carried out without support as well.

**Table 9:** Re-orientation of the farming activities to non-surplus products and to alternative activities in Objective 1 and Non-Objective 1 Regions

	% to non-surplus products	%to non-surplus / % to surplus	% alternative activities
Objective 1 Regions	1,55%	2,71	2,00%
Non-obj. 1 Regions	2,00%	3,10	irrelevant

Source: Own calculation.

Reorientation towards alternative activities to agriculture is also quite scarce, since funds for this purpose generally come from other sources, such as LEADER+ programmes.

### 7.4 To what extent have supported investments improved the quality of farm products?

The interviewed farmers realized an improvement of the quality of their products, but they complained that this has not increased the product prices. However improvements in product quality have facilitated their commercialisation.

The number of investment plans presented with the aim of improving the quality of the products was quite low, but a high number of farmers has introduced integrated farm management practices in order to reduce the chemical residues on the products and to facilitate their commercialisation.

The number of plans with the aim of establishing the standards allowing the participation in quality labels in Objective 1 Regions was limited, because of the high costs involved. There are cases of free quality labels which are highly welcomed by farmers (i.e., in

Asturias, “Meat Programme for the breeds Asturiana de los Valles and Asturiana de Montaña”). Most of the plans presented in Non-Objective 1 Regions to significantly increase product quality to participate in quality labelling are related to the wine sector.

### **7.5 To what extent has the diversification of on-farm activities which originated from supported alternative activities helped to maintain employment?**

According to the information available in the monitoring data base, creation and maintenance of employment by diversification of agrarian activities is quite limited. Nonetheless, most farmers stated in the interviews that FIS is an important incentive for the maintenance of the agrarian activities, as it ensures the competitiveness of the holdings and improves farmers’ living conditions.

FIS had a positive effect on employment maintenance or creation. A distinction between farms owned by a farmer or farming family and agrarian companies or associations is required. On the one hand, individual farms tend to reduce the AWU by increasing the labour productivity, as seen in evaluation question 2. Therefore, the positive effect occurs obviously more in terms of maintaining jobs than in creating them. On the other hand, agrarian companies generally tend to maintain jobs too, but they can also create jobs. In fact, they are the sole type of holdings creating jobs. As an example, see table 10 below, which shows the share of holdings with more than 10 AWU in Non-Objective 1 Regions after the supported investment is established.

**Table 10:** Share of holdings with more than ten AWU after investment in Non-Objective 1 Regions

	% holdings > 10 final AWU
Individual farms	0,63%
Agrarian companies	9,52%

Source: Own calculation.

### **7.6 To what extent have supported investments facilitated environmentally friendly farming?**

The great majority of the investment plans had neutral effects on the environment, both in Objective 1 and Non-Objective 1 Regions (Table 11). However, most of these “neutral for the environment” plans are indirectly beneficial for the environment, as many of the

investments are conducted to improve efficiency, for instance in terms of reducing the use of water, saving energy, etc.

There is a scarce number of plans with the expressed target of improving the environment (Table 11), but as one of the requirements to receive the subsidy is to fulfil certain minimum standards regarding environment and animal welfare, this measure and its application ensures a minimum level of environmentally friendly farm practices.

Some rare negative effects on the environment can be accounted too, for example the increase of input or water use when the area of intensive crops was increased.

**Table 11:** Environmental effects of the supported investments in Objective 1 and Non-Objective 1 Regions

	Environment as direct aim	Beneficial for the environment	Neutral for the environment	Beneficial for environ. & animal welfare
Objective 1 Regions	598 (2%)	4.206 (13%)	22.469 (70%)	1.634 (5%)
Non-obj. 1 Regions	634 (8%)	497	6.796 (77%)	202 (2%)

Source: Own calculation.

## 7.7 To what extent have supported investments improved production conditions in terms of better working conditions and animal welfare?

According to the interviews, 90 % of the recipients experienced an improvement of the working conditions in their farms after the investment. Such improvements occurred by means of reducing heavy lifting, working time and exposure to noxious substances. In fact, the improvement of farmers' life conditions could be the main achievement of FIS.

In tendency the same positive effects on animal welfare are caused by the measure, although this was not the priority of the majority of the presented investment plans. The reason for this is that livestock is less important in Spain than in northern European countries. Similar to the case of the effects on the environment, minimum animal hygiene and welfare standards are required to receive support on investments. Hence the compliance with a minimum level of animal welfare and hygiene is ensured by the application of the measure.

**Table 12:** Number and percentage of presented projects, classed by their aim with respect of animal welfare, in Objective 1 and Non-Objective 1 Regions

	Animal hygiene direct aim	Animal welfare direct aim	Beneficial environ. & animal welfare
Objective 1 Regions	228 (1%)	2.921 (9%)	1.634 (5%)
Non-obj. 1 Regions	148 (2%)	281 (4%)	202 (2%)

Source: Own calculation.

## 8 Conclusions and recommendations

The importance of agriculture in Spanish rural development underpins the high weight of the FIS measure within the RDPs. In addition, the mid-term evaluation's results stress its importance, since the execution exceeds the forecasts and the effectiveness is quite high among the rest of the measures. In fact, in terms of commitments, this is the measure with the highest level of execution among the measures in the RDPs. It is expected that it will exceed the forecasts by the end of the period by far.

FIS has contributed to increase farm productivity and the products' quality but higher competitiveness and income was achieved to the expected extent, due to the negative evolution of the market prices. A diversification of neither farm products nor farm activities was attained, which is likely to be the reason why employment was created. Nevertheless, the measure was very important, especially in terms of improving life and working conditions. Additionally it has contributed highly to the maintenance of employment in agriculture.

In terms of environmental conditions, this measure has contributed to a more efficient use of production factors and natural resources, which is important to preserve the environment. In most of the cases this was not the prime target of the supported investment and the environment was not deliberately improved. However, there is a risk of an opposite effect, since modern and intensive farming systems often imply higher volumes of waste.

Based on the previous conclusions, the following recommendations were extracted from the updated mid-term evaluation:

- (1) Since FIS plays an important role in rural development, the allocation of the funds within the RDPs should be increased.
- (2) In order to consider the different types of farms existing, especially those with social and environmental externalities, more flexible requirements seem to be necessary.

- (3) In order to achieve the general objectives of the programme, positive discriminations towards women, employment creation, organic farming, diversification of activities, etc would be advisable.
- (4) Simple, reliable and homogeneous evaluation indicators are required to improve the effectiveness of the evaluation and to make viable the data collection and its compilation in monitoring or other specific databases. The necessary criteria to interpret such indicators must also be homogenized.

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# **The Experience of the Evaluation of Farm Investment Support in Greece**

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## **1 Introduction**

This paper intends to present the basic evaluative conclusions of the 20 years implementation of the measure of farm investment support in Greece. For the estimation of the effectiveness and the impacts of the measure's implementation, one must take into account the structural characteristics of the farms that are included in the measure, the general macroeconomic environment, the structural characteristics of the primary sector, as well as the frame of CAP and the particular socio-economic conditions of the country.

This wide frame determines and explains many of the conclusions of the evaluation of the measure of farm investment support. That explanation must take into account the fact that in Greece the primary sector is not just a sector of economic activity, but also a factor of safeguarding the economic and social cohesion in the country. This fact justifies particular political choices regarding the implementation of the farm investment support that are not easily recognizable in technical and economic terms, especially in the first and the second programming period, which are both characterised by the lack of a particular framework regarding the eligibility conditions for including or not including a farm in the measure. In contrast, based on data available today, a third CSF is characterised by particular targets and a stricter framework for including or not including a farm in the measure.

It is worth mentioning that many of the proposals that had been remarked upon by the evaluation report at the qualified national implementation authority of the measure of the farm investment support have been taken into consideration at the implementation of the 3<sup>rd</sup> programming period, which has improved the implementation system and made it more rational and aboveboard transparent.

The general conclusion of the 20 years implementation of the measure in Greece is that farm investment support has contributed to the maintenance of the agricultural activity, the partial reorientation of the agricultural production and the essential improvement of the family agricultural income.

However, farm investment support did not secure the long-lasting viability of farms or solve the intense structural problems of the Greek primary sector. These conclusions may be altered when the third programming period is finished and the ex-post evaluation is available, since ex-post evaluation is the only report that can lead to secure conclusions of the impacts.

Despite the problems and the difficulties that exist, especially at the ongoing evaluation, evaluation constitutes a basic tool for the decision-making process.

## **2 Structural characteristics of Greek agriculture**

In Greece, the primary sector, and especially agriculture, is an important economic activity and a major factor for safeguarding the economic and social cohesion in Greek territory, e.g., its contribution to the employment of a great number of prefectures and regions of the country. In Greece, the rural population (according to OECD criteria) represents 64.4 % of the total population of the country, despite the reduction of the last years.

The Agricultural sector contributes 7.0 % to the total GNP of Greece (Epilogi, Nomoi Magazine 2002), occupies 16.4 % of the active population (Eurostat, 2003) and possesses 21.1 % of the total exports of the country (Annual Report of the Bank of Greece 2005). At the same time, the agricultural sector creates the appropriate conditions for growth in a great number of other economic activities, especially the manufacturing sector (industry of foods and drinks, elaboration of tobacco etc).

In Greece, a total of 817,060 agricultural holdings exist with 3,583,190 ha of agricultural land in their possession (Eurostat, 2000). This means that the average agricultural land of each holding in Greece is 4.4 ha. The small size of agricultural holdings and the fragmentation of the land that each holding has in its possession are two of the most important structural problems of Greek agriculture (76.8 % of the total holdings have less than 5 ha of agricultural land in their possession and altogether 29.25 % of the total agricultural land).

Regarding the productive orientation of agricultural holdings, pure agricultural holdings represent 75 % of the total holdings, pure livestock holdings represent 1.5 % of the total holdings and mixed holdings 23.5 % of the total. The proportion between the value of agriculture and livestock production is 80:20, which means that livestock holdings achieve better economic results and have more potential than agricultural holdings (Eurostat, 2002).

Concerning the distribution of the Utilized Agricultural Area (UAA) at the basic categories, 55 % are covered by arable land, 28 % are covered by permanent crops and 17 % are covered by permanent grassland. Moreover, 55.7 % of the total numbers of Animal Units are sheep, 33.9 % are goats, 6.2 % are pigs and 4.2 % are cattle.

In addition, regarding the classification of the holdings by their economic size (expressed in terms of Standard Gross Margin), 34.9 % of the total number of the holdings are classified at the category of less than 2 ESU (European Size Units), 19.9 % at the category between 2 and 4 ESU, 20.6 % between 4 and 8 ESU, 16.0 % between 8 and 16 ESU, 7.6 % between 16 and 40 ESU, 0.9 % between 40 and 100 ESU and only 0.1% at the category of more than 100 ESU (Eurostat, 2000).

Another important problem of the Greek agriculture is the unfavourable demographic structure of the employed in the primary sector. Despite the fact that the number of the heads of the holdings younger than 35 years of age increased in recent years, their percentage in the total number of the heads of the holdings in 2000 was only 8.7 % and 31 % of the total number of the heads of the holdings was older than 65 years (Eurostat, 2000). According to the National Statistical Service of Greece, family labour represents 85.5 % of the total agricultural labour. In addition, 75 % of the total number of the heads of the holdings are men and only 25 % are women (in reality, that percentage is even smaller since most of these women are only “nominally” the head of the holding).

An also important problem of Greek agriculture is the low education level of the agricultural labourers, as well as the fact that almost all of the employed in the primary sector do not even have a elementary agricultural education, but only practical experience (National Statistical Service of Greece, 2000).

Regarding the Gross Fixed Capital-formation in Greece the investments in the primary sector constitute 4% of total investments of Greek economy (Eurostat 2000).

Finally, there is a progressive improvement considering the basic economic indicators of agricultural holdings from 1995 until 2001 (Eurostat 2001):

- The value of the final production is increased on average by 4.20 % annually.
- The Net Added Value is increased on average by 4.15 % annually.
- The agricultural income is increased on average by 4.08 % annually
- Agricultural income per Manpower Workforce Unit (MWU) is increased on average by 6.91 % annually.

The competitiveness of the primary sector and the degree of import of innovations in Greek agriculture are very low, mainly because of the absence of big enterprises and the low educational level of the agricultural labourers.

The relation between Greek agriculture and environment and natural resources has some problems, but in most cases the problems are local and reversible. The effects of agriculture on the environment have positive and negative aspects, as well. As positive aspects are considered the maintenance of the countryside physiognomy and the maintenance of the social standards that prevents the demographic shrinkage of the isolated regions of the country. As negative are considered the pollution of the soil and the water and the erosion caused by intensive cultures.

### **3 Track record of the farm investment support**

In Greece, the provision of financial support for farm investments started in 1983 for the first time under the framework of structuring the Common Agricultural Policy. From 1983 to 1985, during the application of the Directive 72/159/[E.E.C.], the management that intended to develop an Improvement Plan had to compose a “Development Plan” that had to prove the increase of the agricultural income. The biennial application of the Directive 72/159/[E.E.C.] constituted a good start for the preparation of the administrative mechanism of the Hellenic Ministry of Agriculture in order to become ready for the increased requirements of the new agricultural structural policy.

After the laying down of EC Council Regulation 797/85, the “development plans” were renamed to “Improvement Plans” and have been in effect under the same form and philosophy since then. Later, the EC Council Regulations 2328/91, 950/97 and 1257/99 were added to the legal base for the Improvement Plans’ development.

The first reformation of the Structural Policy, right after the entry of Spain and Portugal in the EU and the establishment of the IMP, also signalled the change of the way of development of Improvement Plans and the integration with the respective measures of CSF I (1989 – 1993) and CSF II (1994 – 1999), which covered all those actions aimed at agriculture and forestry on national level, concerning the objectives 1 and 5a of the structural policy.

From 1989 to 1999 the Improvement Plans were developed under the framework of the National Sectoral Programme for Agricultural Development, which is under the responsibility of the Ministry of Agriculture. During the ongoing programming period 2000 – 2006, and the restriction of the structural policy’s objectives there, the Improvement Plans are being developed through a national programme that covers the

Improvement Plans in the livestock-farming and certain pilot projects of Improvement Plans for farms, and also through the 13 regional Operational Programs that finance Improvement Plans in plant production. From 1989 until the end of third programming period, FEOGA - Guidance financed all the Improvement Plans.

The financial support of private investments in the agricultural holdings through the Community Support Frameworks has become the major reason for strengthening the competitiveness of the agricultural holdings. This ascertainment is based on the fact that the national resources that were allocated during that period were limited considerably.

#### **4 Development and implementation of Improvement Plans in Greece 1983-2006**

##### *Implementation of Investment Plans during CSF I (1989-93)*

In order to show the development and the implementation of the Improvement Plans in Greece during the implementation periods, several data were used from the ex-post Evaluation of sub-programme 1 “Structural Conformations”, of the Operational Programme “Development of the Agricultural Sector 1994-99”, as well as from the update of the mid-term Evaluation of CSF III, that are related to the corresponding period until 2005.

For a better demonstration of the evolution of the Improvement Plans, the distinction of the period of implementation in four individual time-programming periods is necessary. The first consisted from 1983 to 1988 and is distinguished by two sub-periods, the period of the Council Regulation 72/159/[E.E.C] (1983-85) and the period 1986-88. The second is between 1989-93 (CSF I), the third between 1994-99 (CSF II), and the fourth from 2000 to 2006 (CSF III). Any reference on amounts, for reasons of comparability, is based on constant prices of the last year of the period of analysis (1999).

Since the beginning of application of the Directive 72/159/[E.E.C] and the following two years, 148 Improvement Plans have been submitted in Greece, by which 95 (64 %) have been approved. The total investment through those particular plans in terms of public expenditure amounted to 3.17 million Euros, that corresponds to 38 % of the total investment. The average amount of investment, also in terms of public expenditure, was 33.3 thousand Euros.

Overall, from 1983 to 1988, including the period of application of Directive 72/159/[E.E.C], 22,066 Improvement Plans were submitted and 16,755 of them were approved with a total public expenditure of 191.39 million Euros (constant prices 1999) and an average amount of subsidy of 11.42 thousand Euros (constant prices 1999). Subsidies of investments reached 41 % of the total cost.

During the CSF I implementation period, 30,305 Improvement plans were submitted in Greece and 30,741 were approved with total public expenditure 389.27 million Euros (constant prices 1999), with subsidies reaching 40 %. The average amount of investment in public expenditure for this period amounted to 12.66 thousand Euros (constant prices 1999).

During the CSF II Implementation Period, 33,542 Improvement Plans were submitted and 31,519 were approved with 694,46 million Euros total public expenditure (constant prices 1999), with subsidies reaching 45 % of the total amount, whereas the average amount of investment in public expenditure terms amounted to 22.03 thousand Euros for this period (constant prices 1999).

Finally, based on the available data and the estimations of the evaluators, at the end of CSF III, 19,677 Improvement Plans are expected to be approved with a total public expenditure of 714 million Euros. The rate of subsidies for the third programming period is between 40 % and 75 % of the total amount of an investment and the average amount of public expenditure per investment is 36.3 thousand Euros.

**Table 1:** Improvement Plans in whole country (in constant prices, 1999)

Period	Submitted Improvement Plans #	Approved Improvement Plans #	Total amount of public expenditure Mil. Euro	Average amount of public expenditure Thousand Euro	Subsidy / investment %
1983-85	148	95.000	3.167	33.33	38
1986-88	21.918	16.660	188.228	11.30	41
1983-88	22.066	16.755	191.394	11.42	41
CSF I	30.305	30.741	389.275	12.66	40
CSF II	33.542	31.519	694.460	22.03	45
CSF III <sup>1)</sup>		19.677	714.271	36.30	40-75
Total	85.913	98.692	2,180.794	22.10	

1) Based on evaluators' estimations. Amounts in current prices.

Source: Ex-post Evaluation of sub-programme 1 "Structural Conformations" of the Operational Programme "Development of the Agricultural Sector 1994-99", 2002. Agricultural University of Athens.

It is stated that certain years exist during the implementation of the Improvement Plans during which a decrease in the number of submitted plans is observed, a fact that is firstly related to the rate of subsidies on the investments and secondly to long-term level of interest rates. Other important factors that contributed occasionally to the decrease of private agricultural investments were the CAP reform in basic products, the various restrictions that were imposed in basic sectors of plant and animal production, the

weaknesses of system's support mechanism at the local level and the subordination of certain capital goods in higher rates of VAT.

Also a great increase of the average amount of investments per programming period is observed, a fact that is regarded as very important. During the first and second programming periods, the laxity of the application framework and the general perception that the investments in the agricultural holdings also have a "social character" have considerably limited the effectiveness of the measure. There were around 500,000 eligible agricultural holdings for implementation of Improvement Plans (practically all holdings with a Standard Gross Margin of more than 2 ESU), while during the third programming period this number has been reduced considerably and led to investments that do not simply aim to replace mechanical equipment, as will be further analysed below.

### ***Implementation of Investment Plans during CSF II (1994-99)***

The data regarding the implementation of the farm investment support at CSF II are based on the ex-post evaluation of the Sub-programme 1 "Structural Conformations" of the Operational Programme "Development of Agriculture Sector 1994-99". The particular evaluation was based on pre-existing data that included primary data of relative studies on agricultural holdings for the period of CSF II.

According to these data, 76.6 % of all Improvement Plans were implemented in less favoured regions (average amount of total expenditure at 37.3 million Euros, 1999) and 23.4 % of them in dynamic regions (average amount of total expenditure at 36.7 million Euros, 1999). The average period of time that it takes an Improvement Plan to be completed is estimated as 15 months.

In addition, Improvement Plans that are implemented by men as the head of the holding are 81.6 % of the total, while Improvement Plans that are implemented by women as the head of the holding are only 18.4 % of the total, and in most cases referred to holdings/families at which the man is not a farmer by profession, and that is why the woman is the "nominal" head of the holding. Moreover, Improvement Plans that are implemented by women usually have smaller budgets than the rest.

Regarding the age of the heads of the holdings who implement Improvement Plans, it is stated that heads of the holdings younger than 40 years implement 49 % of the total.

According to the data used exclusively at the main objective of the Improvement Plans that were implemented in 1994, 33 % of the total investments expenditures aim at cost reduction, 17 % intend to improve the production quality, 17 % aim to improve the working conditions, 12 % seek to develop new activities, 11 % aim to adapt the markets' trends, 7 % intend to improve the animal welfare, 2 % aim at energy saving and 2 % aim

at environment protection. In any case, the main objective of the holdings is to improve their technical and economic conditions.

Regarding the types of the investments that were implemented by the holdings during the CSF II, it is observed that the investment interest is focused on particular investment types. More than 2/3 of the total investments expenditure (71 %) is focused on five main categories: tractor and accessories (38.4 %), bores for water and their relative equipment (10.8 %), greenhouses/glass-houses (8 %), variance of instruments and utensils (7 %) and agro-tourism (6.7 %), since Investment Plans were mainly focused on agricultural production – huge holdings that were highly subsidised by CAP – and less on livestock production.

Finally, regarding the changes that Investment Plans caused in particular structural and economic indicators, the following is reported:

- Irrigated land increased more than the initial forecasts.
- Family labour increased (37.7 %) from 1.35 units per holding on average to 1.86 unit per holding on average, while the total labour increased (36.5 %) on average from 1.67 units per holding to 2.28 unit per holding.
- Workforce productivity increased since Gross Profit per family MWU is increased by 10.4 % and Gross Profit per total MWU increased by 11.6 %.
- Payment per MWU increased by 17.7 %.
- Agricultural income per family MWU increased by 15.1 %.

In conclusion, the important contribution of Investment Plans to economic and structural indicators should be underlined.

### ***Implementation of Investment Plans during CSF III (2000-06)***

Contrary to the Second Programming Period, no “total evaluation” of Improvement Plans exists in the current running period. Combined with the fact that the third programming period is still not completed, it is rather difficult to precisely estimate the measure’s results and impacts on the country’s agricultural holdings.

However, a first estimation of the Improvement Plans’ results and impacts of the ongoing programming period is given through studies and evaluations that have been performed for particular Operational Programmes. For this reason, data are used from the Investment Plans of Measure 1.1 of the Operational Programme for the “Agricultural Development and Restructuring of the Countryside 2000-2006” (2006), that referred to livestock holdings, as well as data from case studies of the mid-term evaluations (2003) of three

regional Operational Programmes (Peloponnese, Sterea Ellada and Epirus) that are related to investments at agricultural holdings.

Concerning the livestock holdings included at the Measure 1.1 of the Operational Programme for the “Agricultural Development and Restructuring of the Countryside 2000-2006”, the structural characteristics of the livestock holdings, the presumable changes at their production process and their economic impacts are being examined, as they have been reported in their current and future condition in their Improvement Plans.

For livestock holdings, the conclusions are the following:

- Livestock population and the number of hives are substantially increased, while UAA and the economic size of the holdings are increased as well.
- Before the implementation of the investment plan, 70 % of the holdings already belonged to the livestock type of farming, 10 % belonged to the beekeeping type of farming and 20 % to the agriculture type of farming, while after the completion of the Improvement Plan almost all the holdings were included in livestock and beekeeping types of farming.
- The average budget of the investments plans is 130,000 Euros per plan, while the average percentage of the subsidies is 51 %.
- Investment plans involve three main categories of investments: agricultural buildings (45 % of total), purchase of animals (approximately 33 % of total), and land-reclamation work (12 % of total).
- Less than a quarter of the total holdings employ family members, while the vast majority of the holdings employ non-family labour. Investment plans contribute to the increase of the family labour at the holdings by 1.2 MWU and to the non-family labour by 2.2 MWU. The employment of the head of the holding and the other family members outside the holding is very small (2.8 %).
- The Family Agricultural Income is almost tripled after the implementation of the investment plans, while the indicator Family Agricultural Income / family MWU is increasing as well and is greater than the reference income. Furthermore, the indicator subsidies / Family Agricultural Income is decreased on average from 57 % to 26 %.

As the framework of the mid-term evaluation reports of the ROP of Peloponnese, Sterea Ellada and Epirus (2003), case studies were implemented regarding the results and impacts of the farm investment support. For these reasons a sample of Investment Plans in agriculture production was examined. At the sampling the total expenditure of the Investment Plan and the region were the holdings were taken into account. From these three case studies, the following conclusions emerge:

- Most of the beneficiaries are men, up to 40 years old (more than 60 % of the total) and "new farmers".
- The main types of farming are arable land, fresh vegetables, melons and strawberries (trucks), olive plantations, vineyards and permanent crops.
- Basic types of investments that are implemented through Investment Plans are replacement/modernisation of their mechanical equipment, land-reclamation work, buildings and greenhouses/glass-houses that increase the holdings' productive faculties and fixed capital. These kinds of investments increase productivity via cost reduction.
- At the majority of the holdings, MWU are increased more than 50 %, mainly because of the great increase of the non-family labour (the increase of the non-family labour could potentially be fictitious, since according Investment Plan each family member cannot exceed 1,750 hours per annum, something that does not happen in reality). Family labour after the investment increases by 15 %. It is very important that the increasing rate of Family Agricultural Income is higher than the increasing rate of the family MWU and as a result the indicator Family Agricultural Income per family MWU is increased as well.
- Holdings' Gross Profit is also increased (more than 60 %), which explains the increase of the Family Agricultural Income. Obviously expenses are increased, which means that the use of factors of production is improved.
- Economic viability of holdings is increased.

## **5 Difficulties and problems at the implementation of Investment Plans**

The problems and the difficulties that have emerged by the implementation of farm investment support in Greece are the following:

- There are not enough Investment Plans. Existing resources cover only a part of the professional holdings that are interested in implementing an investment.
- Successive changes of CAP, especially in the last few years, have caused needs for non-stop changes at the implementation of farm investment support, as well as needs for continual new types of investments. Gradually, less and less holdings (especially small and medium sized, but big sized as well, which are already overloaded) will be able to adapt to the non-stop changes and needs for new types of investments, even if they are able to implement the particular investments through farm investment support.
- There is a lack of sector and regional strategic plans where investments plans could be integrated.

## 6 Conclusions

Concerning the implementation of farm investment support in Greece a number of conclusions can be summarised as follows:

- Farm investment support has diachronically constituted the main lever for promoting private investments in Greek agriculture.
- Farm investment support covers the needs of holdings in replacement/modernisation of their mechanical equipment, in buildings and in land-reclamation work to a great extent.
- Farm investment support contributes to an increase in the number and the area of greenhouses/glass-houses and irrigated land, via financing bores for water and relative equipment and their electrification.
- Farm investment support contributes to the production restructuring and the change of the type of farming. Many holdings switch from agricultural to livestock production.
- Farm investment support contributes to the increase of employment in holdings and the payment per MWU. Moreover, farm investment support improves Agricultural Income per family MWU and Gross Profit per family and total MWU. In addition, holdings improve the level of their economic viability after the implementation of the Investment Plan.
- Most of the heads of the holdings that implement an Improvement Plan are men, up to 40 years old and “new farmers”. Until first CSF most holdings were implemented in dynamic regions, but after second CSF most holdings are implemented in less favoured regions, because of the higher percentage of subsidies.

## Acknowledgement

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The existing situation and the expected changes in holdings that have been included in the measure 1.1 of the Operational Programme “Agricultural Development and Restructuring of the Countryside 2000-2006”, 2006. Agricultural University of Athens

# **Evaluation of Farm Investment Support in Germany – Lessons Learned from the Application of Different Approaches**

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## **1 Introduction**

Farm investment support (FIS) in Germany has been repeatedly scrutinised throughout the past ten years by both evaluations and other researches. The evaluations carried out so far follow the evaluation cycle drawn up by the European Commission. The starting point was set by the ex post evaluation of support schemes under Regulation (EC) No 950/97 which covered investment support of the years 1994-1999. The following and latest mid-term and update evaluation refer to the current programming period which is based on the Regulation (EC) No 1257/1999. These evaluations were finished in 2003 and 2005 respectively.

During the successive evaluation stages different methodological approaches and databases were used. This paper intends to compare the differences and commonalities of the evaluation stages in order to gain some conclusions for the coming ex post evaluation of FIS in 2000-2006.

## **2 Comparison of different evaluation stages**

### **2.1 Organisation**

Since the successive evaluation stages are conducted at different times within the programming periods, they serve varying purposes and cover different aspects. Nevertheless, in each of the studies attempts were made to answer the common evaluation questions (CEQs) which were elaborated by the European Commission (COM 1998, COM 2000). All evaluations of FIS in Germany were carried out by the FAL, however by a changing staff. Only the update of the mid-term evaluation and the ex post evaluation 2000-2006 could be accomplished with almost identical employees. This is due to the fact that the mandate for update and ex post evaluation was assigned together after a bidding process in 2004. The gain of experience is likely to increase the quality of the evaluation.

The choice of an evaluation approach and the utilised database is certainly linked to the financial resources and time available for the evaluation. For the ex post evaluation 1994-1999 in Germany, about 15 months and 3.5 scientific workforce units were available (Table 1).

**Table 1:** Available resources and required evaluation reports in the different evaluation stages for farm investment support in Germany

Evaluation Stage		Available Time (months)	Workforce (FTE) <sup>1</sup>	Number of Reports
Ex post	1994-1999	15	3.5	1
Midterm	2000-2002	12 (17) <sup>2</sup>	3	16+1
Update	2000-2004	8 (14) <sup>2</sup>	4	16+1
Ex post	2000-2006	25 (29) <sup>2</sup>	4	16+1

<sup>1</sup> Full Time Equivalent.

<sup>2</sup> The first number refers to the 16 state reports, (..) to the synthesis report.

Source: Own depiction.

Starting with the current programming period, every single state in Germany (16 Länder) worked out its own Rural Development Programme (RDP) or Operational Programme (OP)<sup>1</sup>. Consequently 16 evaluation reports plus one synthesis report for the responsible federal ministry<sup>2</sup> had to be written.

Like the ex post evaluation for the 1994-1999 programming period, also the following evaluation stages were executed by about three to four scientists. While the evaluation time available was specifically scarce during the update evaluation, now a longer period is granted which offers the opportunity to elaborate and operate a more appropriate evaluation concept.

<sup>1</sup> In Objective 1 Regions which cover East Germany.

<sup>2</sup> Federal Ministry for Nutrition, Agriculture and Consumer Protection (BMELV). The federal state co-finances 60 % of the national expenses for FIS.

## 2.2 Evaluation questions

In the first two evaluation stages, the evaluators tried to deliver answers to each of the CEQs. Even though the focus of evaluation was always directed towards the analysis of income effects, impact on equity building and productivity effects of the support scheme, only after a discussion with the European Commission did the evaluators officially begin to set clear priorities on core questions and abandon the strict adherence to the CEQs during the update evaluation. The update evaluation concentrated (a) on large investments in milk production with special regard to productivity and income effects and (b) on initiation effects of smaller investments, i.e., whether smaller investments contribute to the introduction of innovative production techniques or to a reorientation/diversification of the production on the supported farms. Furthermore, it was an aim of the study to identify dead weight effects and transaction costs on the farm level.

In the ex post evaluation an attempt will be made to overcome the shortcomings of earlier stages, in particular with regard to the representativeness of results and net effects of the support scheme.

The question may arise why evaluations require such a high labour input. One answer is that data management is quite laborious and time-consuming due to the magnitude of different application and approval agencies in the single federal states – and sometimes even within the states – which provide secondary data in different documents, forms and records. As a matter of course, it would also be possible to execute evaluations with very little input. However the validity and usefulness of such inevitably weakly based results and recommendations may be close to zero.

## 2.3 General approach and methods

The evaluations conducted so far in Germany consist mainly of before-after-comparisons and / or with-without-comparisons. Only the mid-term evaluation was based on a comparison of the initial situation with the targets stated in the business plans. Due to the early stage in the programme period, impacts on the farms' performance were not yet measurable. Therefore this initial-target-comparison substituted before-after-comparisons.

The methods applied in the evaluations thus far were mainly descriptive. In contrast, during the ex post evaluation 2000-2006 more emphasis will be put on studying the relations of cause and effect (causality analysis). It is, for example, intended to identify the relevant factors for determining investment activity. Further, the reasons for a positive or negative development of a farm business in different situations will be sought. Special

regard will be given to the significance of supported investments and the level of public assistance.

In the case of FIS it is difficult in Germany – if not to say impossible – to find empirical observations for non-supported farms in order to conduct with-without-comparisons. In the ex post evaluation 1994-1999 the evaluators tried to separate those farms which had received public investment support from non-supported farms in the national FADN<sup>3</sup> data in order to establish comparable groups. The groups were further differentiated by farm size and type of production. However, it must be admitted that most of the non-supported farms in the sample had either received investment support some years earlier or planned to apply for support in the following years.

In order to overcome this problem in the ex post evaluation, a reference group is planned with simulation of the further development of assisted farms without support for selected types of farms. Here business plans of supported farms including various information on the farms before investment, the investments in particular, the amount of investment support as well as the intended effects of the supported investments serve as the basis for the simulation.

So far the evaluations concentrated on impacts in single supported farms. Additionally in the on-going ex post evaluation the sector view shall be taken into account, because it is the competitiveness of the sector as a whole, which shall be improved by the investment support. The reason for applying this approach is that it is not a matter of course that the impact of the support scheme is positive on the regional or sector level even if positive effects can be identified on the level of single supported farms. The net effects and the impact can only be detected if unintended side effects are also taken into account. It has to be stressed that the general approach of the European Commission's evaluation framework is highly farm-level based and leads to a narrowed analysis of supported farms. As a consequence the evaluation results may be misleading.

## **2.4 Database**

### *Available secondary data*

In Germany, evaluators have access to much farm-related secondary data. Valuable data is provided by business or modernisation plans which have to be drawn up to show the compatibility of the projects with the requirements of FIS. These plans contain the structure and up to three annual accounts of the supported farms before investment.

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<sup>3</sup> Farm Accountancy Data Network.

Additionally the intended investments and their financing are also included. Further, the planned structure of the farm and the targeted annual accounts after the investment has been conducted are part of the business plans. Although it can be assumed that applicants will adjust their plans in order to fulfil the rules of FIS, and that the post-investment accounting data is frequently missing, these plans sufficiently describe the situation of the assisted farms in the baseline. If evaluators intend to carry out comparisons of targets with the initial situation, they have to account for the original purpose of these plans and the possible bias that may result.

For the time following the investment, mandatory annual accounts can be used which have to be delivered to the approval agency during 10 years following the year of approval. Since the obligation only exists for larger investments (investment volume of more than 50,000 €), smaller investments cannot be traced on that way, even though they are predominant with regard to the number of approved cases. Often farms with smaller investments do not have any accounting at all.

The catch in these two databases is that an enormous amount of labour is required to be able to use them, because the data – though available digitally – often shows considerable formal differences among the responsible advisory and accountancy agencies between single states and even within the states.

The most harmonized accountancy data in Germany is offered by the national FADN. However often it is difficult to differentiate between those farms which did receive investment support and those which did not. Another problem is that this data does not comprise all the information that would be necessary to judge all kind of impacts of FIS. Furthermore the FADN-data does not include information on supported investment projects, and therefore has to be analysed in combination with complementary data. Moreover, since the sub-sample of farms supported in the evaluation period is rather small, more differentiated analyses cannot be conducted without sacrificing representativeness.

In order to overcome these problems and to receive information which helps in answering the relevant evaluation questions, additional primary data has been collected via surveys of farm managers and farm advisors in previous evaluations.

### *Utilised databases*

The different evaluation stages used various databases, taking into account the availability of data and necessary work for data management, as well as the evaluation frame regarding time and workforce. The **ex post evaluation** 1994-1999 was mainly based on FADN data and corresponding business plans (n=452) which were supplemented by a survey of farm advisors (Table 2). The FADN data was restricted to supported farms with accounting data

for the fiscal years 1997/98 and 1998/99. The incorporation of more years would have reduced the sample considerably and would have posed the problem of maintaining the appropriate time gap between investment and measurement of the effects. Difficulties arose from the combination of the two different data sources since different farm identification numbers were used. Much effort was necessary to both databases later on.

**Table 2:** Databases in different evaluation stages

Evaluation Stage		Database				
		Business Plans	Annual Accounts	FADN (national)	Surveys	Regional Statistics
Ex post	1994-1999	yes (n=457)	no	yes (n=457)	farm advisors (n=202)	no
Midterm	2000-2002	yes (n=2,722)	no	no	farm advisors (n=260)	no
Update	2000-2004	no	no	no	farm managers (n=156)	no
Ex post	2000-2006	yes (n=ca.15,000) <sup>1</sup>	yes (n=???) <sup>1</sup>	yes (n=???) <sup>2</sup>	various surveys: e.g., farm managers (n=???) <sup>1</sup>	yes (numerous sources)

<sup>1</sup> Not yet clear, since numerous data has not been delivered so far.

Source: Own depiction.

In the **mid-term evaluation** all available business plans for 2000-2002 were taken into account and were supplemented again by a survey of farm advisors. Hence, the approach was similar to the previous evaluation stage. In contrast, the **update evaluation** was mainly based on a survey of farm managers (n=156) including both supported and non-supported farms. The survey was conducted in three typical regions and the results were adjusted if necessary and validated by means of expert workshops (mainly advisors) in every single federal state. This on-farm collection of data had advantages and drawbacks. The positive side was that evaluators received up-to-date information which was especially valuable for mid-term evaluation when secondary farm data for analysing investment effects is hardly available. Furthermore, information on windfall gains, the context with other farm businesses, farm strategies and investment restraints from the farmers' point of view could be obtained. Yet, these advantages also entail some negative aspects: On-farm-surveys are costly and many farmers are incompetent in answering questions with regard to business figures. Moreover, a considerable bias must be assumed in the answers due to strategic behaviour of the respondents.

The upcoming **ex post evaluation** will harness all available business plans and mandatory annual accounts. These data have not been scrutinized on such a broad basis for evaluation purposes so far due to the huge effort necessary. The national FADN-data will serve as a basis to identify a reference group of farms without support or where support was given long ago. These secondary data will be supplemented by regional statistics, special secondary data on factor and product prices (e.g., to analyse rollover effects) and various surveys. Contrary to the previous stages, these surveys will be focussed on specific evaluation topics but not utilized as a means to get a broad overview on the impacts of FIS. The involvement of numerous regional statistics shall help to identify the impacts of the intervention on the regional and sector level over time.

It has to be noticed that even in the ex post evaluation the availability of annual accounts from supported farms in the relevant programming period 2000-2006 will be very limited. The simple reasons for this are that annual accounts are delivered only about one year after the respective fiscal year ends and a time span of at least two years has to be maintained. Furthermore, at any rate, two or three consecutive accounting years have to be considered in order to exclude annual influences on the result. This means that only the approvals from the first two to three years of the programme can be taken into account when analysing the accounting data.

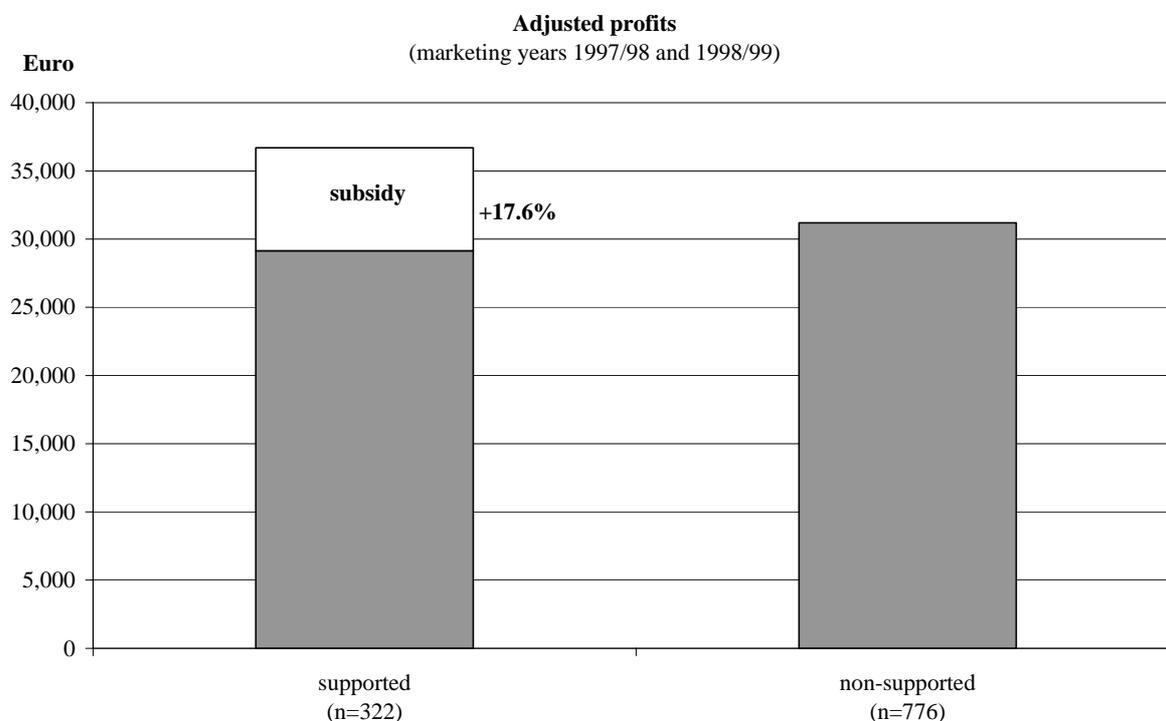
## **2.5 Evaluation results**

Before going into more detail regarding the single evaluation stages, it can be stated that there is no clear indication of the investment support scheme's effectiveness and efficiency so far. From the single evaluation stages only the highlights can be mentioned in this paper.

### ***Ex post evaluation 1994-1999***

The ex post evaluation 1994-1999 found that on average profits of supported forage growing farms were 17.6 % higher than profits of non-supported farms of a comparable size (Figure 1). However, if the annuity of the subsidy was deducted from the profit of the supported farms, the result was the other way around. In this case the adjusted profits of the non-supported farms was 7 % higher.

**Figure 1:** Ex post-evaluation 1994-1999: Comparison of adjusted profits of supported and non-supported forage growing farms



The ex post evaluation report widely refers to a previous analysis of annual accounts of supported farms (Forstner 2000). According to this analysis,

- the data from the annual accounts need further investigation since various biases influence the results. To prevent this, the official book-keeping data needs to be adjusted by tax-oriented bookings, since the impact of non-adjusted accounts on the assessment of the intervention can be serious as shown by Forstner (2000, p. 154). Important areas of adjustments are legal options which are often hidden in high depreciation (e.g., milk quota) that lead to unrealized gains.
- Similarly important is the adjustment for unusual bookings (e.g., high repair expenses) in single years.
- A further source of possible misinterpretation originates from the transfer of capital from the farm level to the private sphere and vice versa. The difficulty is to differentiate between permanent and temporary transfer of money.

Forstner (2000) adjusted the accountancy data of 42 single farms with the help of special insights from farm advisors and tax consultants. The result was that the profits and the increase of equity were considerably higher if these adjustments were considered than if they were not. It is clear that the same approach cannot be applied to anonymous data or

much larger samples. This insight calls for further investigations in order to be capable to interpret accounting results properly.

The ex post analysis including the FADN-data was confined to West Germany since the data in East Germany were not sufficiently stable. The reasons for this were the magnitude of newly established family farms after the German unification in 1990 and the ongoing restructuring in the farm sector at that time.

### ***Mid-term evaluation 2000-2002***

The sole analysis of the business plans (target-initial comparison) showed that the approved farms predominantly expect a marked increase of income and productivity as a result of the supported investments. However the target values were only calculated with respect to the requirements of the support regulations (e.g., limitation of growth). Real effects regarding income and productivity could not be analysed using this data base. Accounting data was not available yet. Therefore recommendations could not be elaborated upon the basis of these results.

The survey of farm advisors indicated that the main objectives of the supported farmers are an increase of productivity and the improvement of working conditions, and much less the improvement of income and farm growth.

One technical recommendation of the mid-term evaluation was to introduce a system of variables as a part of the business plans which has to be collected from every recipient in an absolutely standardized form in order to overcome the huge workload necessary for standardizing the data from the business plans. This system was elaborated by the evaluators and later introduced by most of the federal states.

### ***Update evaluation 2000-2004***

As was the mid-term evaluation, the update evaluation also was mainly based on surveys of involved parties. The main findings of the update evaluation were as follows:

- Investment support contains considerable amounts of deadweight (especially in the case of small investments).
- Larger investments lead to substantial farm growth and increase in labour productivity in the supported farms.
- Innovative or initial effects can hardly be found, i.e., the supported investments are to a large degree replacements or investments in well-established technologies.
- There are positive (gross) effects on environment, animal welfare und working conditions, which in most cases, however, have to be rated as positive side effects of other core objectives like increase of income, rationalisation and growth.

Both, the surveys of the mid-term and the update evaluation allowed most of the CEQs to be answered albeit on a weak database. Due to the facts that the information largely came from parties involved (farmers and advisors), and that the databases were not representative, respectively, the information was limited to selected regions, and therefore the conclusions could only be of limited scope.

### **3 Lessons learned and perspectives**

Primarily, it is the principal, here the ministries, and the evaluation guidelines of the European Commission, which are mainly targeted to allow the realization of a meta-evaluation, which strongly influence the quality of the evaluation reports on FIS. So far, even fairly weak reports were accepted by the principal as long as they did not contradict the desired results too much. Unfortunately the scientific community and the interested public does not take much notice of evaluation results since publications aimed at these groups are not in the interest of the principal and therefore are very rare.

Many of the current RDPs for the period of 2000-2006 lack important prerequisites for effective interventions and their evaluation: they often do not contain a clear intervention frame. This concerns the SWOT analysis which is often weak. Frequently the definition of core objectives is missing which should be presented quantitatively whenever possible. Furthermore a consistent intervention logic is lacking in most of the RDPs. Finally, the absence of the identification of useful indicators for the following evaluations completes the picture of inappropriate ex ante evaluations as a part of the current RDPs. The main reason for this seems to be a mixture of both deliberate political vagueness and incapability on the programme managers' side. These insufficiencies seriously impair later evaluations which are in a need of a sound and comprehensive ex ante evaluation as the starting point for their analyses.

Hence, it has to be conceded that the quality of the evaluation reports produced so far cannot satisfy the requirements stated by European Commission since they provide only limited information on effectiveness and efficiency of the intervention. The main weaknesses are:

- Gross effects are attributed to intervention without sound knowledge of windfall gains and side effects on non-supported farms. The same is true for multiplier and roll over effects as well as for transaction costs. Hence it is likely that the benefits from FIS are overestimated.
- The narrow focus on supported farms obstructs the view on the main goal of FIS, which is the improvement of the sector's competitiveness via improving the structural conditions.

- The analyses are mainly descriptive and the database is quite small. There has been no investigation of the causal link between investment support scheme and observed effects so far.
- An assessment of the intervention as a whole was not yet possible. Thus the recommendations were confined to selected items.

### 3.1 Lessons

Assessing the weaknesses and strengths of the previous evaluations, the following lessons were learnt:

- Special lessons for evaluation of FIS:
  - The analysis must not stop at the farm level but the (regional) farm structure has to be examined, too.
  - The available annual accounts will be analysed in connection with the business plans. The non-assisted farms in the period 1990 to 2006 should serve as reference group. The comparisons must be conducted with largely homogeneous sub-groups in order to identify the net impact of the support scheme. Econometric methods shall be used for that purpose.
- General lessons for programming and evaluation:
  - No programme should be approved without complying with the essential requirements (see Chapter 3, second paragraph), because these premises provide the basis for later evaluation stages and sound assessments.
  - There is much information and data about supported investments on the single farm level, e.g., business plans, accounting data, data from the paying agency. To be able to utilize these sources efficiently, a single registration number common to all data bases and nation-wide homogenized registration forms is essential.
  - In order to improve evaluations, publications with regard to methodologies applied and databases used, as well as results and recommendations should be allowed without the authorisation of the principal. In order to stimulate an exchange of ideas among evaluators of different member states, a publication platform should be established by the European Commission. Of course, all contributions have to be written in English to increase accessibility.
  - In addition, annual or biennial workshops should be organised on the European level: Since methodological and data related aspects of the single intervention chapters (here: investment support) are rather different, these workshops have to specialize to avoid superficiality.

## 3.2 Perspectives

It is expected for the ex post evaluation of FIS in Germany that evaluators will be able to deliver a basic assessment of the scheme's net effects, efficiency and impact. However, despite of the substantial endowment of the ex post evaluation 2000-2006 with workforce, even in this evaluation the following crucial aspects of investment support will presumably not be tackled sufficiently:

- Transaction costs are important for a sound evaluation. However, the necessary effort to measure and assess them properly is huge apart from the fact that appropriate methodologies to capture them have still to be developed. Further, the interest of the principal in such an analysis is rather low.
- It will still remain fairly unclear how to deal with the counterfactual situation, although various ways will be given a try.
- Because of the effort necessary for utilising all existing data, the analysis of the databases available will be limited even in the ex post evaluation.

There is first evidence that the rural development programmes for the next programming period (2007-2013) will also suffer from a lack of establishing the basis for a sound evaluation. For example, in the first drafts of the RDPs from the different federal states a clear objective tree and intervention logic etc. is still missing.

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# **Impact Analysis of Investment Support for Agricultural Buildings in Switzerland**

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## **1 Problem definition and objectives**

### **1.1 Background**

Agriculture in Switzerland is an economic sector in which numerous governmental support measures are implemented. There are three different areas of agricultural policy measures at Federal Government level (Federal Office for Agriculture, FOAG, 2005b, p. 118):

- Production and marketing: the creation of good structural conditions for the production and marketing of food.
- Direct payments: the remuneration of services that benefit society.
- Improvements in agricultural production: the promotion and support of safe, efficient and environmentally responsible food production.

The improvement of production includes structural measures designed to enhance economic and living conditions in rural areas. The public sector intervenes by granting investment support. This assistance is granted for measures taken by individual farms and for those taken jointly by more than one farm. Two tools are available:

- one-time grants, financed partly by the cantons, mainly for cooperations, and
- subsidized investment credits granted as interest-free loans, mainly for measures by individual farms.

Investment support focuses on agricultural infrastructure, thus enabling farms to adapt to changing structural conditions. The aim is to lower production costs, encourage ecological performance, and thereby enhance the competitiveness of a sustainable agricultural production (FOAG 2005: 186).

Table 1 shows, in a simplified manner, the types of buildings and the regions for which investment support is available. Federal Government grants for individual farm measures are only paid for stables of roughage-consuming animals and for alpine buildings in hill regions,

mountain regions and summer pasturage areas (summering area). Investment credits are available to more farms.

**Table 1:** Agricultural buildings supported by investment support

Type of Buildings Supported	Plain region	Hill/Mountain Region, Summering Area	
	Investment Credit	Investment Credit	One-time Grant
Rural Buildings			
Roughage consuming animals	Yes, up to 60 LU*	Yes, up to 60 LU	Yes, up to 40 LU
Pigs and Poultry	Yes, up to 60 LU	Yes, up to 60 LU	No
Plant Production	Yes	Yes	No
Alpine Buildings	-	Yes	Yes
Residential Buildings (max. 1200 m <sup>3</sup> )	Yes	Yes	No

\* LU: livestock unit

Source: SVV, simplified

Both one-time grants and investment credits are paid based on standardized rates. The level of support is determined on the basis of the attributable space per investment item (e.g., animal housing, hay and silage stock, farmyard manure facility, shed), per building component (e.g., agricultural building, dwelling) or per unit (e.g., LU, m<sup>3</sup>, m<sup>2</sup>). The standard rates are laid down in the FOAG Ordinance on Investment Aid and Associated Social Measures in Agriculture and apply to each farm manager satisfying the conditions.

## 1.2 Problem definition

Since the year 2000, the funds used by the Swiss Federal Government to benefit agriculture have been approved by the Parliament in the form of a four-year payment framework. As a basis for the parliamentary decisions, the Swiss Federal Office for Agriculture (FOAG) commissions evaluations of selected measures. Preparations for the 2008-2011 payment framework are currently in progress under the heading of „Agricultural Policy 2011“ (AP 2011). In this context, the FOAG, the Swiss Federal Audit Office (SFAO) and the Swiss Organisation for Structural Improvement and Agricultural Credit have requested an evaluation of individual farm investment support for agricultural buildings. The evaluation was carried out in the form of a master's thesis (Pfefferli 2006) as a part of an Executive Master of Public Administration course at the University of Bern.

This paper shows the impact of investment support for agricultural buildings using the example of dairy cow stables. The data is derived from selected farms participating in the Swiss Farm Accountancy Data Network (FADN).

## 2 Basis of the impact analysis

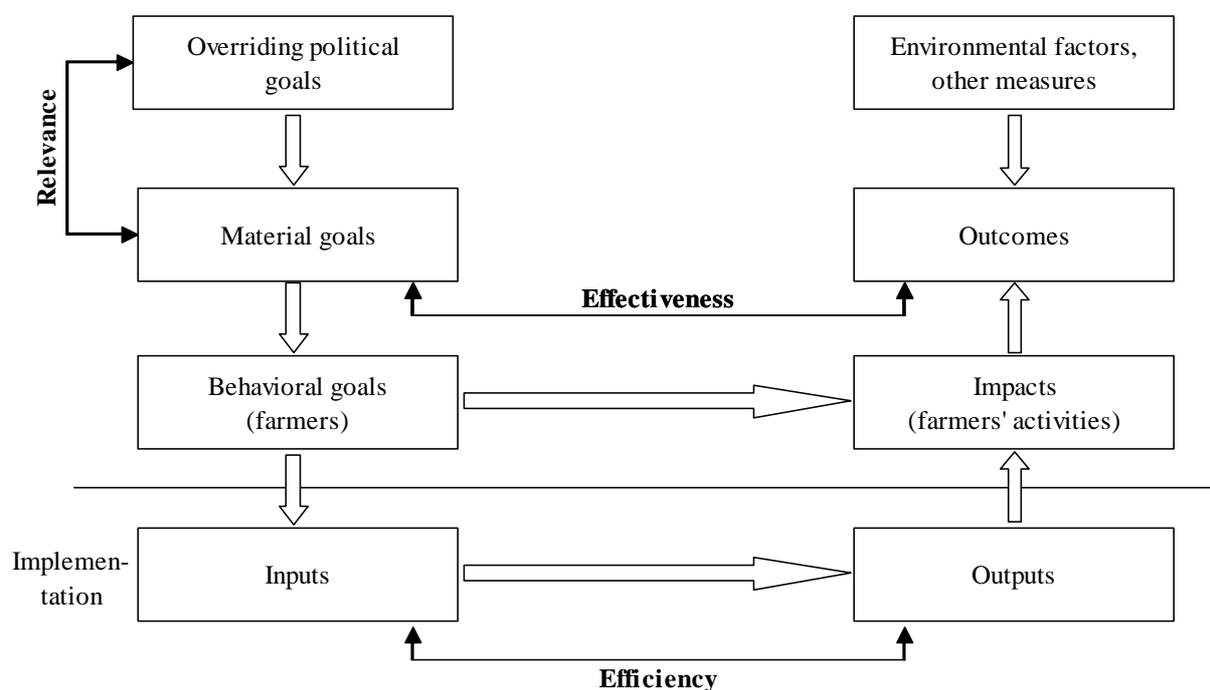
### 2.1 Evaluation of government measures

According to Widmer (1991, p. 11), a policy passes through various phases. This process can be described as a policy cycle. The subject of the study presented here is an evaluation of the programme's impact. *„Programme impact denotes the process triggered by the implementation of a programme. Policy impacts are the result of this process. By this we mean not only the intended impacts of the programme, but also any unintended side effects.“* (Widmer 1991, p. 17).

The FOAG Evaluation Guidelines (2003) contain a general impact model for agricultural policy measures (Figure 1). Overriding political goals relating to agriculture can be found in Article 104 of the Swiss Federal Constitution. These are described in Article 87 of the Swiss Federal Act on Agriculture and in the Ordinance on structural improvement, which is the basis for behavioural goals. For example an objective is that farmers should only build specific animal-friendly stables in the future. The Federal Government and the cantons provide financial resources, which is the input for investment support. The farmers apply at cantonal credit banks, which check the applications and approve or reject them. Grants for approved investments are the outputs. Farmers' expectations influence their activities (impact). If an additional support is given for selected animal-friendly housing systems, and if this incentive is greater than the additional costs, farmers are likely to invest in such systems. Further, investment support has an impact on production costs and on the number of animals in animal-friendly housing systems (outcome). When carrying out an evaluation of investment support, it should be kept in mind that these impacts may also be affected by other influencing factors such as other policy measures.

An evaluation of a policy measure (FOAG 2003, p. 7) should focus on various aspects (Figure 1):

- Relevance: does the measure really help to achieve the overriding political goals (constitutional targets)?
- Effectiveness (efficacy of the measure): are the defined material goals achieved by the measure?
- Efficiency: are the funds optimally used? Is implementation taking the optimum form?

**Figure 1:** Impact model of an agricultural policy measure

Source: FOAG 2003, p. 5.

According to Ledergerber (2005, Register 3), a performance audit, i.e., an evaluation, investigates the impact of a government measure. The result is an improved knowledge of the impacts of this measure. On the policy level this should ensure a more goal oriented use of scarce resources and result in improved programming.

Following Ledergerber, four conditions are described in table 2, which must be met by successful government support measures. These conditions are the starting point for a reasonable evaluation.

**Table 2:** Conditions for successful government support schemes

Condition	Description using the example of a government grant
Effectiveness	A major impact is triggered in the intended direction.
Efficiency	The target impacts are achieved at minimal cost.
Goal achievement	A goal set in the form of a standard is achieved.
Advantageousness	The advantages on the whole justify the costs and drawbacks.

Source: Ledergerber (2005, Register 3), own representation.

ERKOS, the method for the evaluation of government grants in the Canton of Bern, breaks the evaluation down into six steps (Ledergerber 2005, Register 3). The preliminary work mainly

includes the definition of the subject under investigation. The goal definition derives the goal system from the legislative framework and establishes indicators and standards. The implementation audit comprises an assessment of the current standards of executing the measure and an analysis of implementation problems. The impact analysis investigates the impact of investment support on the indicators previously defined and identifies both desirable and undesirable side effects. The impact analysis consists of three sub-steps: first the impact mechanism is identified, then the impacts are determined and finally an initial interpretation of the results is presented. The evaluation analyzes the results of the impact analysis according to the different conditions for „success“. The implementation analysis leads to recommendations for adjustments in the goal system and the implementation procedure, for improvements of the data set generated and the legal basis, and for alternative measures.

## 2.2 Legal basis, the goal system derived there from, indicators and standards

The legal basis for granting investment support to agriculture in Switzerland is laid in the Federal Constitution, the Federal Act on Agriculture, the Structural Improvement Ordinance, the Ordinance for Regulating the Accompanying Social Measures in Agriculture and in the FOAG Ordinance on Investment Aid and Associated Social Measures in Agriculture.

Table 3 shows the outcome of an analysis of the goal system of the measure entitled „Investment Support for Agricultural Buildings“ based on the above mentioned legislative framework. In table 3 the goals selected for the evaluation with the associated indicators and standards are presented.

**Table 3:** Measurable goals of investment support for agricultural buildings

Goals	Indicator	Standard
a1) Reduce production costs	Accountancy: production costs per ha of utilised agricultural area or per kg milk	Lower than before investment
	Accountancy: farming cash flow	Greater than before investment
	Accountancy: overall productivity	Greater than before investment
	Accountancy: labour productivity	Better than before investment
b1) Improve economic conditions	Accountancy: cash flow	Greater than before investment
b2) Improve living conditions	Survey (evaluation by farm manager): quality of life	Quality of life better after investment
c1) Achieve environmental goals	Accountancy: Proof of Ecological Performance (ÖLN)	ÖLN complied with after investment
c2) Achieve animal welfare goals	Accountancy: contributions for Animal-friendly Housing Systems (BTS)	Farm receives BTS contributions
d) Avoid profit taking effects	Accountancy: acceptability	Repayment index < 5
e) Ensure long-term existence	Accountancy: financial stability	Farms in a grave financial situation < 10 %

Source: Own Presentation.

## 2.3 Data acquisition and preparation

The purpose of this paper is to determine the economic impact of supported investments in agricultural buildings in the reference farms of the Swiss Farm Accountancy Data Network in the years 1999 to 2002. The restriction to this period is due on the one hand to a system change from residual financing to standard rate financing from 1999 onwards. On the other hand, the economic impact of investments can only be assessed when accountancy results are available for post-investment years. The most recent accountancy data available dates from 2004.

A total of 256 farms meeting the following criteria were identified from the FADN database:

- highest investment of the FADN reference farms in residential and/or agricultural buildings between 1999 and 2002
- but with minor investments in buildings in the years 1998, 2003 and 2004, defined as those which invested less than 10 % of the total from the period from 1999 to 2002 in 1998, 2003 and 2004,
- availability of accountancies at least for one of the two years prior to investment and for one of the four years following the year after the investment, and
- a proportional spread of the farms within the plain, hill and mountain regions.

As the FADN data provides no information on the type and extent of buildings constructed, and because only the investment credits, but not the one-time grants, are represented in the accounts, each farm was sent a questionnaire comprising the following:

- (1) general data on the farm and farm manager,
- (2) farm building data,
- (3) experience of building projects gained in 1999 – 2002 and
- (4) supplementary notes.

Of the 256 questionnaires sent out, 196 or 76.6 % were completed and returned. Part (1) was used to obtain the agreement of the farm manager to link the data collected by the questionnaire and the FADN data with the data of the MAPIS information system. Part (2) gives an indication of the age of existing buildings on the farm and the buildings constructed between 1999 and 2002. Part (3) shows whether the target goals were achieved and whether the buildings were on the right scale. Part (4) asks about exceptional occurrences that could explain wide variations in the accounting results.

### 3 Results of the impact analysis

A share of 93 of the 196 farms that participated in the survey invested in dairy farming. 25 of these farms built or rebuilt at least 30 cattle places (defined as the „large dairy“ group) and 23 built or rebuilt 13 to 26 cattle places („medium dairy“ group). The accountancy data of 22 farms from each of these two groups was available for a before / after investment comparison with 2-3 intervening years (short term comparison). A before / after investment comparison with 4-5 intervening years (medium term comparison) was also possible for six farms from each of these two groups.

**Table 4:** Overview of results from the impact analysis

Indicator	Large dairy group <sup>1</sup>		Medium dairy group <sup>2</sup>	
	2/3 y. after inv. n = 22	4/5 y. a.inv. n = 6	2/3 y. a. inv. n =22	4/5 y. a. inv. n = 6
General farm data				
Utilised Agricultural Area	+5.3 %	+12.1 %	+10.0 %	+12.9 %
Total working days	+0.7 %	-5.5 %	-0.2 %	-14.9 %
Milk production	+46.7 %	+85.8 %	+17.1 %	+9.7 %
a) Production costs, profitability, productivity				
Production costs/kg milk real	+3.4 %	-22.7 %	0.0 %	-9.5 %
Agricultural income real	-21.0 %	+30.5 %	-11.1 %	-12.8 %
Labour productivity real	-13.6 %	+17.2 %	-6.4 %	-6.8 %
Overall productivity real	-9.2 %	+1.0 %	-8.0 %	-8.3 %
b) Economic and living conditions				
Cash flow nominal	+11.7 %	+24.6 %	+8.3 %	-6.4 %
Farms, better quality of life	52%		75%	
c) Government contribution for ecological and animal welfare purposes				
ÖLN <sup>3</sup> and organic farms	100%	100%	100%	100%
Farms complying with BTS <sup>4</sup> conditions	95%	100%	68%	50%
d) Acceptability and profit taking effect				
Farms with repayment index < 5	48%	30%		
e) Financial stability and long term viability				
Farms in a grave financial situation	5%	0%	36%	33%
Efficiency of investment support				
Effect of 1 CHF <sup>5</sup> investment support on farming cash flow	CHF 1.21	CHF 4.00	CHF 0.61	CHF -0.26

<sup>1</sup> Large dairy group: farms with investments in at least 30 cattle places.

<sup>2</sup> Medium dairy group: farms with investments between 13 and 26 cattle places.

<sup>3</sup> ÖLN: Proof of ecological performance.

<sup>4</sup> BTS: Support for selected animal-friendly housing systems.

<sup>5</sup> CHF: Swiss Franc.

Source: Own calculations.

Table 4 summarizes the most important results of the impact analysis for the two dairy cattle groups. The figures and their signs show relative changes compared to the situation prior to the investment, percentages without signs indicate a proportion of all farms at the corresponding time after investment. While the result indicating a better quality of life is derived from the survey, all the other results stem from the analysis of the accountancy data.

### ***General farm data***

The farm data shows that the Utilised Agricultural Area (UAA) increased after investment and that the number of working days decreased after 4-5 years. Milk production rose markedly in all the comparisons, indeed more strongly than either UAA or livestock numbers, although a trend towards reduced labour input can be observed. This development was caused by a rise in annual milk yields, improved opportunities for yield-adjusted feeding, and a reduction in working time required per cow in cubicle housing systems with milking parlours (Table 4).

### ***Production costs, profitability, productivity***

To determine the production costs per kg milk, all revenues not originating from milk were deducted from the production costs. Assuming that these revenues cover their costs, the result is an approximation of the production costs of total milk production. Dividing these costs by the volume of milk produced results in the real production costs per kg milk. These may well turn out to be too high in absolute terms, because even for production costs, adjustments may still have to be made. However the relative trend is more crucial in an evaluation of investment support than the particular figures calculated. The results show that the production costs remained nearly constant in the short term comparison but dropped significantly 4-5 years after investment (Table 4).

For the agricultural sector the long term reduction in production costs is important. More crucial for the individual farm, however, is what is left of the gross income when outside costs are deducted. The agricultural income compensates for the equity capital invested on-farm and the unremunerated work of family members. Revenues and outside costs increased in all four scenarios but outside costs to a higher degree. In three out of four comparisons, this led to a drop in agricultural income compared with the situation before the investment. The exception is the "large dairy" group for which the medium-term comparison shows a positive trend with an increase of over 30 % (Table 4).

When calculating labour productivity and overall productivity, the influences of price changes and direct payments were corrected. While determining the labour productivity, the calculation was based on the real farm income and considering standard figures for the working days. For the calculation of overall productivity, the real gross yield and real outside costs were taken into account. The trends were similar to those of the agricultural income,

except that the medium-term comparison for the „large dairy“ group showed a slight increase in overall productivity (less than 0.2 % per year) and a marked improvement in labour productivity (around 2.9 % per year).

### ***Economic conditions and living conditions***

The main difference between agricultural income and farming cash flow is that the latter does not take depreciation into account. Cash flow is calculated from farming cash flow by adding the income from off-farm activities and subtracting private expenditures. The cash flow is the flow of money on farm budget level and in three out of four comparisons it was higher after investment than before (Table 4).

Table 4 reveals that about half of the larger dairy farms and three quarters of the medium-sized ones improved their quality of life by the investment. Among other things, the trend in milk volume indicates that the large farms invested for growth, whereas the primary aim of the medium-sized farms was to reduce the workload and to achieve a more ecological and animal-friendly milk production at the same time.

### ***Ecological and animal welfare goals***

Table 4 shows that after the investment all farms analysed complied with the Proof of Ecological Performance (ÖLN) programme. The proportion of organic farms increased, as did the proportion of farms participating in the „Particularly Animal-friendly Housing System“ scheme (BTS). The compliance with ÖLN is a precondition for receiving general direct payments. Farms that satisfy the organic or BTS requirements are even entitled to higher direct payments. Hence a magnitude of financial incentives (also from outside of farm investment support) encourage farmers to apply higher standards of animal welfare and a more environmentally responsible production.

### ***Acceptability and profit taking effects***

When calculating the repayment indices two farms were omitted from each of the „large dairy“ and „medium dairy“ groups. The reasons for this are that firstly no information on project costs was available for them and secondly accountancy data was missing, even for years following the investment. The repayment index was calculated as a quotient of the change in medium- and long-term outside capital and the rate of investment and repayment. The latter equals the equity capital generation plus the depreciation on buildings and fixed facilities. The lower the repayment index turns out to be, the more acceptable is the investment. In about half the large dairy farms and in 30 % of the medium-sized ones, the repayment conditions can be judged to be very good since the repayment index is lower than 5 in these farms (Table 4). However, in these cases the question arises whether the investment support is necessary at all. Such a low repayment index may indicate the existence of a substantial share of dead weight effects in investment support of dairy cow stables.

### ***Financial stability and long-term viability***

According to De Rosa (1999, p. 75), a farm is in a grave financial situation when the proportion of outside capital exceeds 50 % and the farm is consuming equity capital. These conditions apply to only one of the large dairy farms, but to about one third of the medium-sized farms (Table 4). It is questionable whether it makes sense to support such farms with public funds. Considering these cases, further questions are whether the criteria for investment support are selective enough and whether they are correctly applied.

### ***Efficiency of investment support***

The efficiency of investment support is measured by determining the farming cash flow per subsidy equivalent. Investment support is considered to be efficient if the *farming cash flow* exceeds the present value of the subsidy, i.e., if the efficiency criterion is greater than one. The subsidy value comprises the interest saved from approved interest-free investment credits as well as the annuity of a one-time grant. On average the efficiency is only given for the large dairy farms but not for the medium-sized ones (Table 4). However the differences between individual farms are considerable and thus need more in-depth analysis.

## **4 Conclusions**

The evaluation, which was carried out as part of the master's thesis (Pfefferli 2006), leads to the following six conclusions:

- (1) The data base, which was established by linking the survey, the MAPIS data of the Federal Office for Agriculture and the accountancy data of the Swiss Farm Accountancy Data Network, constitutes an interesting database for continuous analysis. The master's thesis should be considered as a prototype in this respect.
- (2) As measured by the indicators of production cost per kg milk and farming cash flow, the target of reducing production costs in Article (Art.) 87 paragraph (para.) 1 letter (lt.) a of the Federal Act on Agriculture (LwG) was partially achieved.
- (3) Measured by the quality of life and cash flow indicators, the objective of improving living and economic conditions (Art. 87 para. 1 lt. b LwG) was only achieved by the majority of the farms with supported investments.
- (4) As measured by the share of investments complying with the conditions of the Proof of Ecological Performance (ÖLN) and of the Contributions for Particularly Animal-friendly Housing Systems (BTS), the ecological and animal welfare targets (Art. 87 para. 1 lt. d LwG) were achieved to a great extent.

- (5) On the basis of the repayment index indicator, the occurrence of dead weight effects cannot be excluded for a certain number of supported farms. However the dead weight effects cannot be approximated quantitatively without conducting a more detailed analysis.
- (6) The aim of ensuring a longer-term viability of the farms by granting investment support (Art. 89 para. 1 lt. a LwG), which was measured by the indicator of “financial stability, grave financial situation“, has been met by some 80 % of the farms analyzed.

The lack of representatives and the relatively small number of farms evaluated make it impossible to put forward any recommendations on the future design of the measure. However the results show that the measure on „investment support for agricultural buildings“ is effective in dairy farming. As regards efficiency in the use of funds, great differences were found between the farms. More detailed studies are necessary.

Due to the reorganisation of the accounting system from which the FADN data originates, fewer farms provided FADN with accountancy data in 2001 and 2002. Further some farms changed to a simpler tax accounting system. This caused breaks in the availability of time series data on farm level. In the future, therefore, a new monitoring concept is needed as the basis for evaluating the profitability developments of supported farms.

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# **The Analysis of Changes in Farm Investment Support Policy in Poland after Joining the European Union**

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## **1 Introduction**

Investments constitute the foundations of development of each economy sector. Therefore the national policy in this respect is a crucial element of influencing economic growth of the country. This article is to evaluate the influence of this policy on the agricultural sector in Poland.

Basing on the statistical data for the period of 10 years (1994-2005), we would like to present the evolution process of the agricultural investment supportive instruments. The analysis will be focused on evaluation of the compatibility of pre- and post-accession instruments to the farmers' needs. In the case of the latter, due to the fact that the programming period has not yet ended, the conclusions will refer to the current observations and remarks, without formulating a distinct assessment.

The aim of this paper is to evaluate the changes in farm investment support policy, which resulted from accession of Poland to the European Union.

## **2 The characteristic of investment needs of Polish farmers**

With respect to size, Poland is the sixth biggest country in the European Union. The area of cropland, which amounts to over 19 million hectares, constitutes 61.2 % of the total surface of the country, which places Poland in the first rank among all EU counties. Arable land in turn occupies 73.5 % of the cropland.

Establishing the exact number of people employed in agriculture is not easy. According to some estimates, the number of people active in agriculture could even exceed 4 million, which is more than 50 % of farmers in the European Union. On the other hand, the number of people employed in agriculture decreases to 2.14 million if we subtract all those farmers who produce only for their own needs. Regardless of the definition, the number of

people involved in agricultural activity considerably exceeds the demand for a workforce in this sector, which leads to a low level of average work efficiency. People employed in agriculture constitute 17 % of the working population, but contributed only 4.5 % to the GDP in 2004.

This leads to the problem of open and hidden unemployment. Approximately 45 % of all registered unemployed fall in rural areas. Moreover, unemployment is often inherited. These facts lead to the poverty of many rural societies. The level of human development index in urban areas comes to 0.83 whereas in rural areas only 0.79.

One of the main reasons for the high unemployment rate is the fact that the rural population is less educated compared with the urban population. In 2002 only 5 % of all people working on farms exceeding one hectare of size were graduates of a university. More than 34 % had only primary school or an even lower education. More than half of all farm owners are less than 40 years old, which shows that the age structure is favourable.

Also characteristic for Polish rural areas is that settlements are scattered. This leads to higher construction costs and sometimes excludes taking up any activity that is not related to agriculture. The average density of population in rural areas amounts to 50 people per square kilometre (national average: 122).

The above-mentioned low work efficiency is caused mainly by numerous families for whom the agricultural activity is not the main source of income. The number of all farms in Poland amounted to 2.8 million in 2004, out of which 1.8 millions were larger than one hectare. The greater majority constitute small and very small farms of acreage less than 5 hectares. Scarcely less than 120,000 farms occupied an area of more than 20 hectares of cropland. The average size of a farm is 8.44 hectares.

The unfavourable area structure is one of the main causes of insufficient production of marketable output. Less than half of all farms aim their products at the market and approximately 25 % participate in the market only occasionally. Remaining farms resigned from cultivation or produce only for their own needs.

The potential of Polish agriculture is rather high, although the soil and climatic conditions are rather unfavourable (predominant is soil that is suitable for rye and potatoes only). The plant and animal production constitute 53.5, respectively 40.4 %, of market output. The main crop is cereal, among which the most important is wheat. The average crop of most cereals is in Poland considerably lower than in other EU countries. However, in respect to the quantity, Poland is the fourth biggest producer of wheat among all EU members and the leader in rye and oats production. A significant role is played also by potatoes and

sugar beets. Also, more than 20 % of all apples produced in the EU come from Polish orchards.

The biggest share in Polish marketable animal production is held by pigs for slaughter (20.9 %) cows' milk (18.1 %) and poultry (9.6 %). The pigs stocks are the third biggest in the EU and cattle the seventh biggest. The agricultural production is fragmented, however the situation has been changing recently.

The unfavourable image of Polish agriculture, which arises from analyzing average numbers, is often misleading. This results from the fact that many statistics contain numerous farms which are actually not engaged in agricultural production. Approximately 65 % of all farms achieve a standard gross margin lower than 2 ESU. These are usually small farms, whose output is utilized for their own needs. The owners of these farms do not intend to continue production in the future and their current activity is an effect of the difficult situation on the domestic labour market as well as from the benefits resulting from participating in the Agricultural Social Insurance Fund. According to some estimates, the number of farms professionally engaged in agricultural production oscillates around 600,000.

Especially the most perspective farms are concerned by price risks because their financial scope is small. Another hurdle is the low level of association among farmers, which is caused by historical experience. This results in incompatibility of technical equipment with the resources of labour and land. Although the value of fixed assets is not low, which is testified to by the number of tractors per hectare of arable ground, Polish farms cannot be considered as well-equipped. Moreover, the majority of buildings and machinery do not fulfil the technical requirements of the EU. Many farmers also face difficulties with proper management and preparing financial analysis and financial plans. Also the creditworthiness of farmers is insufficient.

The majority of farms use traditional techniques of production with a minimum input of means of production such as crop protection chemicals, industrial fodders, mineral and chemical fertilizers. In Poland an extensive type of production with a low level of specialization is dominant. All above-mentioned characteristics indicate the following needs of Polish agriculture:

- improvement of farms' profitability by rationalizing the structure and scale of production and reducing unjustified costs, e.g., logistic costs,
- increase of production economic efficiency by implementing technological equipment and management innovation,
- improvement of competitiveness by reducing unit costs, rationalizing production organization, increasing viability and economic power of farms,

- increase of production added value and product quality,
- improvement of job safety by replacing faulty or worn machinery and attending the Health and Safety courses and
- adaptation of the production to the EU requirements in respect of phytosanitary regulations and other environmental welfare.

### **3 Pre-accession investment support**

#### **3.1 National support**

The basic element of farm investment support in the pre-accession stage consisted of credit interest subsidised from the national budget. The supervision over the national credit policy to the agricultural sector is carried out by the Agency of Restructuring and Modernization of Agriculture, which was established in 1993. Its core competencies, among many other activities, include interest subsidies of investment and national disaster credit. The prerequisite for supporting investment activities is proper cooperation between the Agency and the banks that are the main source of funds. The banks receive the subsidies from the Agency, the amount of which depends on the level of rediscount rate of the National Bank of Poland. The banks, out of their own resources and on their own account, grant credits for undertakings that are approved by the Agricultural Advisory Centres. The maximum level of obligatory farmers contribution, maximal amount of credit, as well as maximal term of loan are specified separately by the Agency for each type of credit facility. In the pre-accession period 50 different types of credit were introduced. The description below characterises the most popular forms of credit.

Definitely the prevailing number of credits was granted for setting up and equipping farms by farmers who are less than 40 years old. This credit facility enables financing of practically every investment related to agricultural production, provided that this undertaking results in creating a farm which is going to be the main source of income. The funds can be allocated for constructing or modernizing a building, purchasing machinery and other equipment, as well as for buying livestock units. The amount of credit should cover 80 % of investment outlays, but cannot be greater than 0.9 million Euros (in 2004) or 70 % (maximal 1,8 million Euros) in the case of non-traditional types of production. Investment credits in agriculture, agri-food processing and services for agriculture, credits for land purchasing or different kinds of regional and branch credits created within the program of restructuring and modernisation of dairy, meat and fish industry gained great popularity, too. It is evident that not all types of credits were aimed directly at farm support. Table 1 contains the output concerning the most frequently granted credits within the 10 years preceding Poland's accession.

**Table 1:** Number and amount of investment preferential credits in 1994-2003

Type of credit	Number	Amount million €
For young farmers	103.573	1.727
For elementary investments (equipment)	87.986	1.005
For purchasing of land	71.358	314
Regional and branch	23.139	824
Total	290.437	3.997

Source: [www.arimr.gov.pl](http://www.arimr.gov.pl).

In order to present the credit interest subsidies system more precisely we will present the figures that concern only the year 2003. In that year the total number of preferential credits granted amounted to 24,578, of which 11,500 fell to credit for young farmers, 6,152 for land purchasing and 5,206 for elementary investments. This means that the value of credits for young farmers made up more than 50 % of the total value of preferential credits. By virtue of granted credits, the Agency passed on to the banks 88.5 million Euros, from which only 4.3 million concerned credit subsidies for the year 2003. At the same time the value of domestic investment outlays accounted for 761 million Euros. According to the estimations of the Agency each zloty that comes from subsidies involved 1.5 zlotys of the internal contribution and it generated 4.2 zlotys of the investment value.

The farm support activities of the Agency were not limited only to the credit interest subsidizing: It also granted securities and investment credit guarantees. However, the farmers did not pay much attention to them. In the period between 1994 and 2003, the Agency secured merely 163 and guaranteed 9 credit agreements.

The evaluation of the preferential investment credits remains ambiguous. On the one hand, the credit interest subsidies enabled many farmers to finance the investment for a price lower than the market price and influenced favourably the relation between land and labour as well as capital and labour (Czerwińska-Kayzer and Poczta 2001). On the other hand, however, the flexibility in subsidised investment projects leads to the fact that only a small proportion of all accomplished investment can be recognized as evolutionary. The survey carried out at the end of the preceding decade revealed that less than half of investments proved to be innovative (Kulawik 2001). In many cases, especially in small farms, the problem of overinvestment appeared (Podstawka and Nawrocki 2001). This kind of situation is unfavourable mainly with respect to the fact that the possibilities of utilizing the superfluous workforce in agriculture are considerably limited. It is also worth pointing out that the investment support policy is in contradiction with the necessity of reducing the surplus in supply of many agricultural products.

## 3.2 SAPARD

Another important element of supporting farm investments before accession to the EU is SAPARD, which was also implemented by the Agency of Restructuring and Modernization of Agriculture. The size limits of this article do not allow a thorough description of the mechanisms of launching and functioning of SAPARD, the knowledge in this field is easily accessible though.

The SAPARD funds are considered to have been quite high. In the years 2000-2006 approximately 3,640 million Euros were planned to be allocated. The allocation for Poland amounted to over 1,200 million Euros. Taking into account the domestic contribution, which comes from national budget (386 million Euros), local budgets (400 million Euros) and private funds (1,047 million Euros), SAPARD was supposed to introduce projects of a worth higher than 3 billion Euro.

The financial resources for farm investment support (Measure 2) were supposed to account for 18 % of all available SAPARD resources. This Measure 2 was designed to improve farm technical equipment, to adjust farms to the EU standards and to enhance production efficiency by restructuring. The SAPARD funds were also oriented to preserve rural landscape and to minimize the unfavourable influence of agricultural production to the environment [Rowiński 2005]. Within Measure 2 farmers could apply for co-financing of the following types of investments:

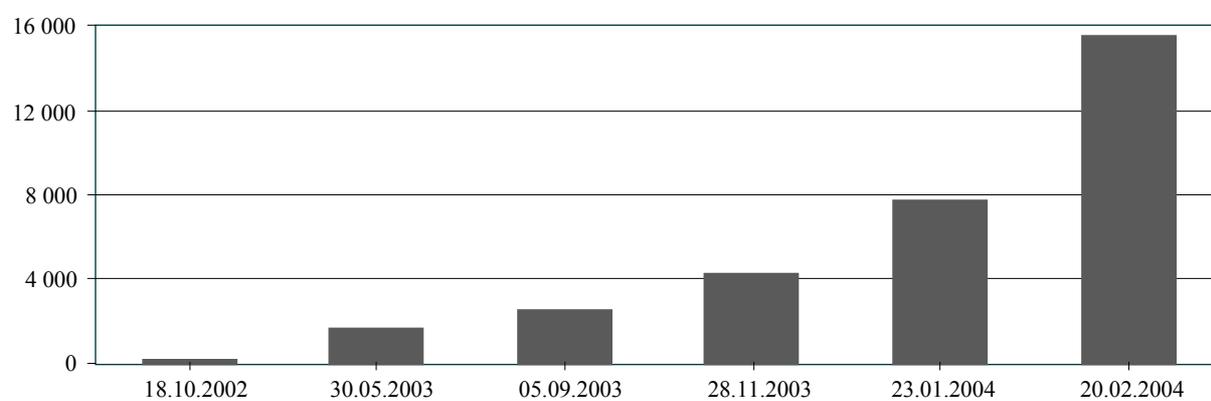
- restructuring of milk production,
- modernisation of farms, which specialize in cattle for slaughter,
- reconstruction of sheep-raising facilities,
- modernisation of pig for slaughter and poultry production and
- increase of production diversification.

The support was available for all individual farmers who were less than 50 years old, participated in the Agricultural Social Insurance Fund, fulfilled the condition of minimal job qualifications and experience (minimum 5 years). The applicants interested in the modernization of animal production had to meet specified requirements that concerned production volume, the number of animals and the surface of farm buildings. The projects co-financed from the scheme “Production diversification” were to increase the number of farms, whose main income comes from the non-traditional agricultural production and optimization of labour resources utilization.

The farmers whose applications were qualified to co-financing within SAPARD could count on repayment up to 50 % of accepted eligible costs after completing the investment. Additionally the ceiling level of domestic aid was settled.

Figure 1 presents the change in the number of applications submitted in time. At the very beginning the interest in Measure 2 of SAPARD was rather low. The farmers were discouraged mainly by bureaucratic requirements and difficulties in finding reliable information about the program. Later on the so-called “demonstration effect” appeared which was based on positive experience of other farmers, who had applied earlier for support. However, the most important change occurred as a result of changes in regulations, which allowed co-financing the purchase of tractors out of the resources of SAPARD. This form of investment appeared to be the easiest way of utilizing the funds. Therefore most of applications concerned purchasing tractors and other agricultural machinery.

**Figure 1:** Number of applications submitted within the Measure 2 of SAPARD



Source: [www.minrol.gov.pl](http://www.minrol.gov.pl).

The prevailing part of the applications and agreements concerned the scheme “Production diversification” (Table 2).

**Table 2:** The number of agreements signed within the Measure 2 of SAPARD

Measure/scheme/component	The number of agreements	The value of agreements million
2.1 Restructuring milk production	1.037	18,9
2.2 Restructuring of animal for slaughter production	872	15,9
2.2.1 Restructuring of dairy cattle	44	0,5
2.2.2 Reconstruction of sheep-rising	27	0,3
2.2.3 Modernization of pig for slaughter and poultry production	801	15,1
2.3 Production diversification	11.833	113,6
Total	13.742	148,4

Source: [www.arimr.gov.pl](http://www.arimr.gov.pl).

The possibility of benefiting from the remaining schemes was ignored by potential beneficiaries. Undoubtedly the restrictions concerning the possibility of output growth and the severe requirements for entering the program had a negative influence on the participation level. Compared to the credit investment subsidies system, the general evaluation of SAPARD is certainly more favourable. The farmers could obtain higher levels of support and the selection of the admitted types of investments was better adjusted to Polish needs. The low participation level of the schemes within Measure 2 reveals, however, certain imperfections of SAPARD. The farmers complained about the complicated procedures of applying for the support and strict requirements concerning the necessity of adapting farm building to the EU standards (Błąd and Klepacka 2006). It also seems that some characteristics of Polish agriculture were overridden, e.g., low vertical and horizontal integration of agriculture and small scale production, which makes farmers focus on activities which increase production potential.

## **4 Post-accession investment support**

### **4.1 National support**

The domestic support in the post-accession period is a continuation of the former national aid. Nevertheless, according to EU regulations its range has been limited so as not to create conditions of unfair competition. Currently 13 credit facilities are available which are designated to support plant as well as animal production.

In comparison to the pre-accession period currently different types of credits gained in importance. According to the data of the Agency of Restructuring and Modernization of Agriculture, nowadays the credits for increasing the production scale rank at the top. This type of credit corresponds with the objectives of the Rural Development Plan and SOP “Agriculture” (see below).

Second come credits for improving the farm area structure. This credit constitutes the supplement to the farm investment aid within SOP “Agriculture” (see below), which also gained a lot of popularity. Summing up we may claim that the implementation of EU investment support did not prevent farmers from making the use of national support. This results partly from the fact that Polish farmers still place more confidence in domestic aid.

## **4.2 The Sectoral Operational Programme (SOP): Restructuring and modernization of the food sector and rural development 2004-2006**

With the accession to the EU, the Polish food sector gained the access to the financial support granted within the framework of the Common Agricultural Policy and structural policy of the EU.

During the first years following the accession, the structural policy is coordinated with the National Development Plan 2004-2006. The SOP "Agriculture" constitutes in many respects (the rules of utilisation or horizontal character) the continuation of the SAPARD. The program was launched on the whole territory of Poland in 2004-2006.

The budget of this program for the period 2004-2006 amounts to approximately 1.8 billion Euros, from which 1.2 billion come from the EU funds. Taking into account the contribution of the beneficiaries, the total value of accomplished projects should come to 2.7 billion Euros.

The Agency of Restructuring and Modernization of Agriculture performs the function of an implementation agency for most of the measures within SOP "Agriculture" four of which directly relate to agriculture:

- on-farm investment,
- setting up of young farmers,
- diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes and
- development of technical infrastructure connected with agriculture.

The above-mentioned measures are aimed to fulfil following objectives:

1. Improvement of competitiveness and sustainable development of the agricultural sector. This is the most important strategic goal of the Polish agricultural and food sector during the first years of accession. The aim of the support is to improve the situation of Polish agriculture by focusing on the production of marketable goods, lowering the production costs and diversifying activities.
2. Support for food processing industry in order to improve its competitiveness. Fulfilment of this goal should contribute to modernisation of many plants, improvement of production quality, and achievement of EU standards in respect of food hygiene and safety as well as animal welfare.
3. Support of multifunctional rural development. This aim focuses on spreading the idea of performing activities that are not related to agriculture, creating the

favourable conditions for development of differentiated activities, maintaining the environment and preserving the social heritage.

On farm investment support aims at fulfilling the main objectives by supporting direct investment in farms. It constitutes to a large extent the continuation of Measure 2 of SAPARD, but without the division into schemes and components. A significant novelty, however, is the differentiation of support levels, which favours young farmers who run a farm on less favoured areas. On the other hand, in contrast to SAPARD, there is no upper limit set concerning the age of farmers. The maximal level of financial aid under this measure amounts to 77,000 Euros. It is anticipated that in the years 2004-2006 more than 17,000 farmers might be applying for this aid.

The second measure is designed to encourage the setting up of new farms by young farmers. The main aim of this support is to accelerate the pace of generation replacement in rural areas. Four main conditions need to be fulfilled so as to obtain this financial aid, which amounts to 13,000 Euros:

1. a minimum of 12-months agricultural experience and under 40 years old,
2. suitable qualifications,
3. fulfilment of the minimal environmental, hygienic and animal welfare standards,
4. achievement of an appropriate level of economic viability.

The Young farmers' assistance turned out to be very popular (the current participation accounts to 97.1 %, see Table 3). This was caused by the relatively low requirements of participation.

**Table 3:** The level of utilization of investment support within the SOP „Agriculture” 2004-2006

Measure	Number of application submitted	The number of agreements signed	The number of accomplished projects	The total value of payment €	The level of limit utilization %
<b>Priority I.</b> The support of changes and adjustments of agricultural and food industry					
Measure 1.1.	29.224	15.319	6.679	158.075.391	26,23
Measure 1.2.	18.853	14.160	13.765	177.672.509	97,09
<b>Priority II.</b> The sustained development of rural areas					
Measure 2.4.	7.163	2.500	795	13.261.907	12,39
Measure 2.6.	4.944	2.082	696	5.438.817	13,37

Source: [www.minrol.gov.pl](http://www.minrol.gov.pl).

The investments taken up under the diversification measure are supposed to increase the number of available professional activities that are not directly related to agriculture. The main aim of this support is to diversify the income sources of rural inhabitants. For the accomplishment of this goal a maximum of 26,000 Euros can be assigned, which should cover 50 % of all eligible costs of the project. For the time being the number of applications submitted is relatively low (the amount of funds allocated accounts for 12.4 % of the whole budget of that measure, see Table 3). It is predicted that the interest in this measure will rise as soon as other, more important needs are satisfied with support by the first two measures.

Within the measure for the support of a multifunctional development farmers will obtain support for accomplishing projects, which improve the access to technical infrastructure. Depending on the type of project the maximal value of aid accounts for 20,000 to 51,000 Euros. As before, this amount should cover 50 % of eligible costs. According to estimations of the Agency of Restructuring and Modernization of Agriculture the number of beneficiaries is likely to reach 12,000. The current level of participation amounts to 13.4 % (see Table 3) of the whole allocation of this measure, which is rather low. It is likely that, similarly to the foregone measure, the interest will rise in the future.

### **4.3 Rural Development Plan**

The Rural Development Plan is a document developed by The Ministry of Agriculture and Rural Development. Its main aim is to fulfil the objectives of the European Agricultural Guidance and Guarantee Fund. Again the Agency for Restructuring and Modernisation of Agriculture implemented the Rural Development Plan and mediated in funds payments. The Plan was designed to support the sustainable development of rural areas in the years 2004-2006. The main objectives of the Plan, which include social, economic and environmental undertakings, are supposed to be consistent with other operational programs, especially with SOP "Agriculture". The strategic goals of the Rural Development Plan are the following:

- support of sustained development of rural areas and
- improvement of competitiveness of farming and food industry.

Nine measures have been implemented within the Rural Development Plan. For their accomplishment, over 3.5 million Euros were allocated (a certain proportion of these funds was utilised to supplement direct payments (705.3 million Euros) and financing certain measures of SAPARD (140 million Euros)).

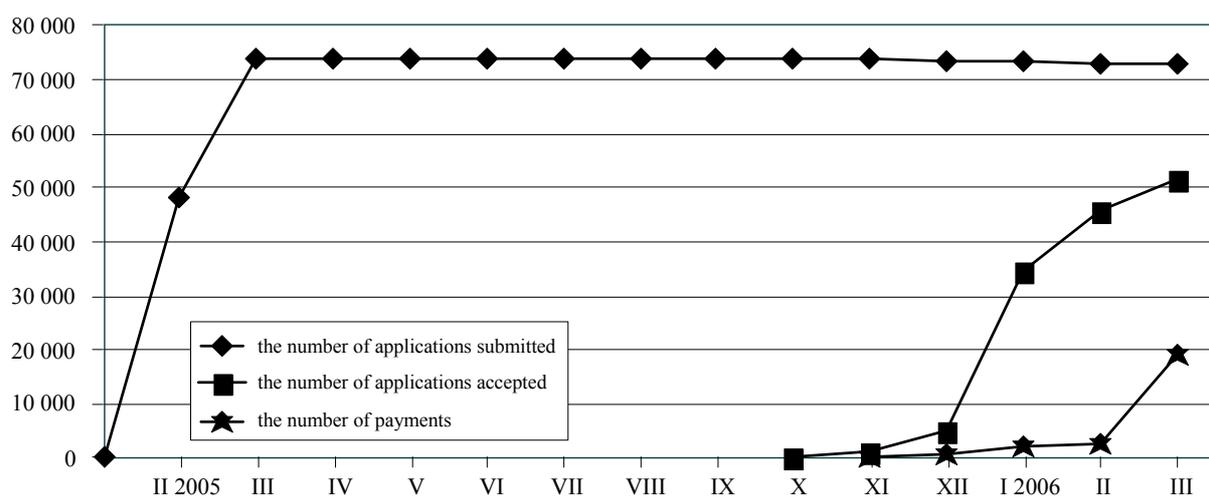
In contrast to SOP "Agriculture" the Rural Development Plan does not include measures that aim directly at investments. The majority of measures are supposed to support the

income of farmers in return for complying with the Common Agricultural Policy. Practically the only measure that can be recognised as investment supportive is the Measure 6 “Adjusting agricultural holdings to EU standards”. This measure is directed to the agricultural producers who do not possess sufficient funds to make necessary adjustments in following fields:

1. equipping of farms with installations for storing farm manure,
2. adjustment of dairy farms to the health protection requirements. For this aid only those farmers can apply, who possess a stock cattle of more than 30 units and were obliged to do adjustments by the veterinary service and
3. adjustment of laying hen farms to the requirements that concern animal welfare.

Initially the amount of funds for accomplishing this program accounted for 243.4 million Euros, however, it turned out that the number of farmers interested in this measure exceeded two and a half times the value of allocation. Hence the Minister of Agriculture decided to reallocate funds within the Rural Development Plan, thereby increasing the budget of Measure 6 to 687 million Euros, accounting for 7 % of the total budget of the Plan. The Polish contribution in the whole financing period will come to 20 % of the budget. Within the period from 1st of February till 14th of March 2005, the Agency received 73,182 applications (see Figure 2).

**Figure 2:** The number of applications submitted and accepted, the number of payments within the Measure 6 of the Rural Development Plan



Source: [www.minrol.gov.pl](http://www.minrol.gov.pl)

The number of accepted applications amounted to 51,645 and the number of beneficiaries who already received funds to 18,550 according to the latest data (April 2006). The current level of payments is approximately 86 million Euros and accounts for about 13 %

of total allocation for the years 2004-2006 (see Figure 2). The average proportion between the number of submitted applications and the number of farms amounts to 3 %. The discrepancy between different regions of Poland, which can even reach 12 percentage points results from specialisation of farms in different types of production (e.g., farms situated in central or north-eastern Poland specialise in dairy production).

The financial aid covers 100 % of the eligible costs of projects, but not more than 25,000 Euro within 12 months. The payment is made in two equal instalments before and after accomplishment of the project. It is also worth stressing that the farmers who apply for support need to prove the economic vitality (vivacity) of the farm (the economic size of a farm must be greater than 4 ESU).

## **5 Summary**

In order to evaluate changes in farm investment support it is necessary to take the level of their compatibility with the needs of Polish farmers into account. Undoubtedly one of the most urgent needs is the necessity of adopting farms to the EU standards in respect to hygiene, protection of the environment and animal welfare. Another important desire is to acquire the proper amount of technical capital, which would allow for production specialization and optimization. Farm investment instruments should also take into consideration the limitations that affect farmers, which include in the case of Poland: insufficient financial resources, low creditworthiness, as well as unfavourable area structure of farms.

Taking into consideration the most urgent investment needs, the EU investment support instruments proved to be superior to the domestic ones. If an investment was to be financed with help of preferential credits it was not expected to be consistent with the EU policy. For that reason preferential credits cannot be recognized as well defined financial instruments. The flexibility of choosing the type of investment led in many cases to inefficient capital allocation. Most farmers did not pay attention to the requirements that have to be fulfilled by every farm in the EU and they neglected the possibility of using preferential credit in order to adapt to the standards in advance. Yet we have to take into account that the access to the information about the EU requirements was limited.

The beneficiaries of the Rural Development Plan, SOP "Agriculture" and SAPARD were obliged to comply to the EU standards, there were some exceptions however (e.g., within SAPARD farmers were allowed to purchase tractors and other machinery, which definitely did not serve the adjustment to EU requirements).

The evaluation of instruments that were designed to support farm specialization is much more difficult. This refers especially to the farm investment support within SAPARD. At the planning stage this measure was to increase the level of animal production specialization. The interest in measures, aimed directly at animal breeders, was rather low, though. Apart from the complex problem of finding the main cause for this situation, we may say that most of the co-financed investments did not positively influence the level of specialization. A similar situation appeared in the case of preferential credits supporting the specialization, which proved to be much less popular than the remaining ones. With respect to the specialization, the best results were brought in by Measure 6 of the Rural Development Plan.

The measures within the EU pre- as well as post-accession programs also allowed for a lower level of financial participation of the beneficiaries. Due to the fact that many farmers do not have sufficient capital this is an important aspect. This refers especially to those farmers inhabiting the less favoured areas. On the other hand the way of project financing, where refunding is expected after the accomplishment, is perceived by farmers as less favourable than preferential credits.

To sum up, we may say that the change in the form of co-financing investments, which resulted from accession to the EU, was favourable for Polish farmers. The current instruments ensure not only a higher level of project financing, but are also much better adapted to the needs of Polish agricultural producers. This means that these instruments encourage those undertakings which are likely to bring in higher yield and result in emergence of farms with great economic potential. The favourable evaluation of post-accession investment instruments results from the better adaptation to the needs resulting from requirements of the EU and higher allocations. A cause for the improvement also lies in the experiences made with pre-accession programs, thanks to which the farmers as well as implementing agencies could better prepare for the fulfilment of the objectives of the investment policy.

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**Papers Presented in the Session on Investment Support  
for Improvement of Processing and Marketing of  
Agricultural Products**



# **The Implementation of Investment Support for Improving Processing and Marketing of Agricultural Products in the EU Member States - An Overview**

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## **1 Introduction**

The purpose of this presentation is to create an overview of the implementation of investment support for improving the processing and marketing of agricultural products in the EU member states.

The definition of investment support for improving the processing and marketing of agricultural products is described in article 25 of EC regulation 1257 from the year 1999 (Reg. (EC) 1257/1999, Art. 25, 1):

“Support for investment shall facilitate the improvement and rationalisation of processing and marketing of agricultural products and thereby contribute to increasing the competitiveness and added value of such products.”

The objectives of this measure are (Reg. (EC) 1257/1999, Art. 25, 2):

- to guide production in line with foreseeable market trends or encourage the development of new outlets for agricultural products,
- to improve or rationalise marketing channels or processing procedures,
- to improve the presentation and preparation of products or encourage the better use or elimination of by-products or waste,
- to apply new technologies,
- to favour innovative investments,
- to improve and monitor quality,
- to improve and monitor health conditions and
- to protect the environment.

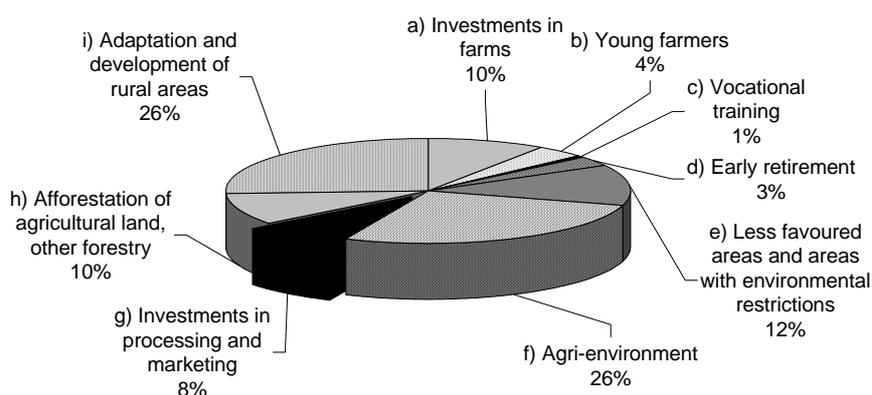
The following chapter describes the impact of measure ‘g’ through results from EC programming and monitoring data. The specific results gathered from a questionnaire are presented in the third chapter.

## 2 The impact of measure ‘g’ on the European level: Results from the EC programming and monitoring data

The impact of measure ,g‘ on the European level will be explained by presenting results from the EC programming and monitoring data.

Rural development policy under Agenda 2000 offers a ‘menu’ of 22 measures which can be grouped into the broad categories shown in Figure 1. The small letters mark the eight main categories and the most important category ‘adaptation and development of rural areas’ which summarises a number of additional measures. The member states choose those measures from this menu that best suit the needs of their rural areas. These are included in their national or regional programmes. The EU contribution to the financing of measures varies depending on the measure and the region concerned (Objective 1 status – less prosperous regions – or others). This paper deals only with investments in improving processing and marketing. The measure ‘g’ gets only 8 % of the total expenditures of 49 billion EUR planned for the period 2000 to 2006 in the EU-15 countries.

**Figure 1:** EAGGF Guarantee and Guidance planned expenditures by main measures 2000-2006 (EU-15)



Source: EC DG AGRI (2003a).

Agenda 2000 recognised that adapting production to market developments, researching new sales channels and adding value to agricultural products are all important in helping to raise the competitiveness of the sector. Support is made available for investments to improve the processing and marketing of agricultural products. The investments should contribute to one or more objectives, including applying new technologies, improving and monitoring quality, encouraging the development of new sales channels for agricultural products, and protecting the environment (EC DG AGRI, 2003a).

The different funds for different regions are aggregated at the member state level for the sections of EAGGF. The programming differs for regions with Objective 1 or outside Objective 1 (Table 1). The total amount of support is limited to 40 % of volume of eligible investment in the Guarantee fund, and 75 % in the Guidance fund as out lined in Council Regulation (EC) 1260/1999, Art. 29. The Objective 1 Regions in Germany, for instance, get a maximum 50 % support rate. Special regions, for instance the Azores, have differentiated support rates from 50 to 75 % (Serrano, 2006). The maximum contribution of EAGGF differs depending on the region: It is 50 % outside Objective 1 and 75 % in Objective 1 Regions.

**Table 1:** Main characteristics of support for measure ‘g’

Programming regions:	Outside Objective 1	Objective 1
EC support financed through EAGGF <sup>1</sup> -Section	Guarantee	Guidance
Total amount of support limited to a maximum of (% of volume of eligible investment)	40%	75%
Maximum EC-contribution	50%	75%

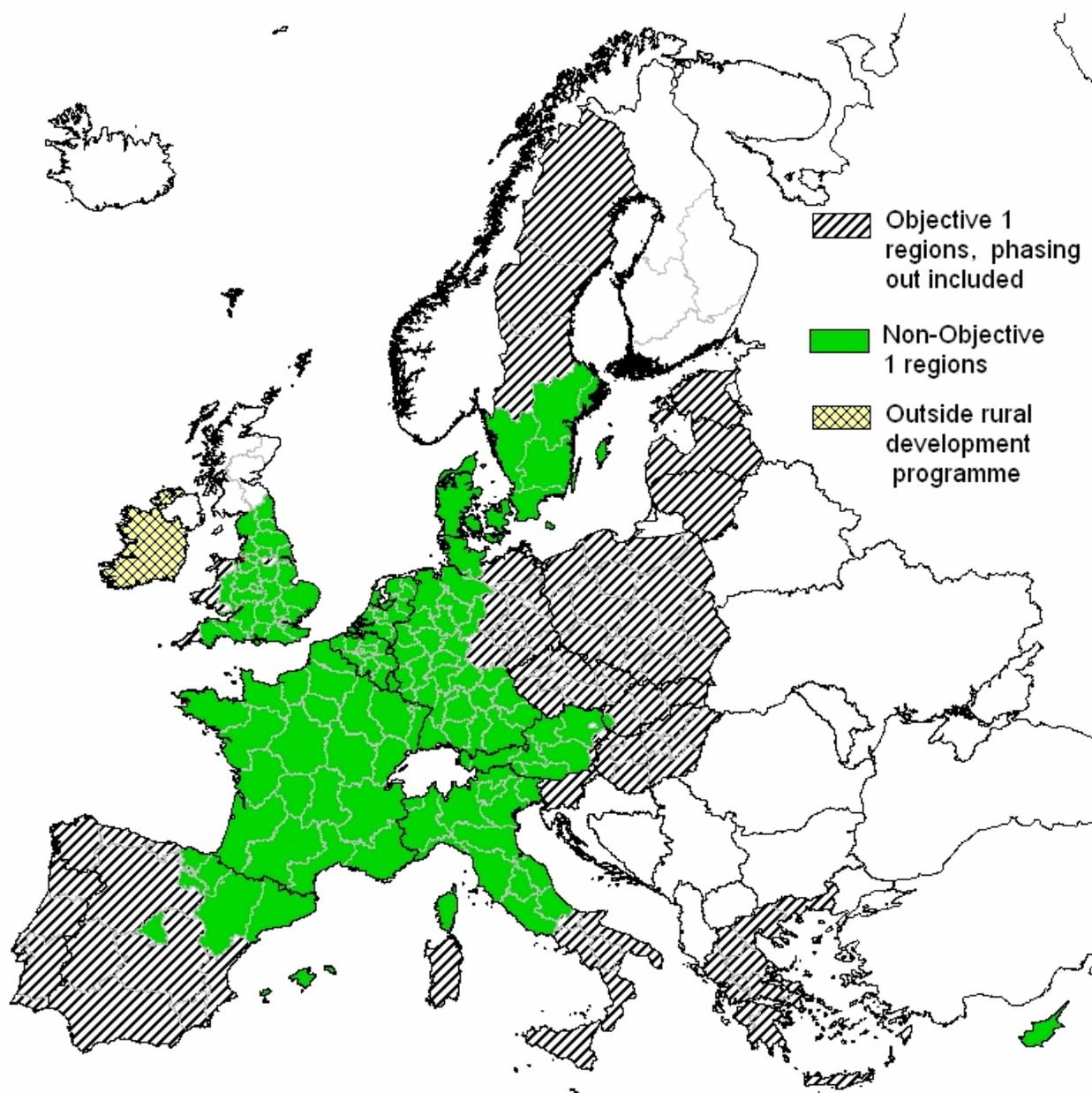
<sup>1</sup> European Agricultural Guidance and Guarantee Fund.

The map in Figure 2 gives an overview of countries with measure ‘g’ in their rural development programme: As far as we could find out, all countries are taking part in this measure with the exception of Finland, Scotland, Northern Ireland and Ireland. In Ireland, it appears that this measure is programmed in a regional development programme.

The regions of Figure 2 marked in black are programmed under Objective 1 regulation including regions which are phasing out during this programming period. The regions marked grey are programmed outside Objective 1.

All evaluators attending this workshop had similar problems evaluating the programming of differing regions. A lot of differences appear as the implementation is totally different depending on different EC regulations (No 1257 or 1260), and different fund sections (Guarantee or Guidance) in different regional contexts.

**Figure 2:** Countries with measure 'g' in their programme



Source: EC DG AGRI (2003b).

### 3 Information from attending countries

The following information was gathered from the questionnaires which we received from the researchers who were attending this workshop. The expenditures for measure ,g' in several EU states (due to missing data not all members are considered) and the new member states are shown in Table 2. The impact of processing and marketing varies widely: France and Germany got the highest amount of public input for measure ,g': 2,816 million EUR and 780 million EUR, respectively. The share of measure ,g' on total public input is the highest in Portugal with 21 %. Portugal is followed by France with 18 % and Greece with 11 %.

In the new member states only Cyprus got a share for the measure 'g' as high as Greece. The amount is very low in the new member states due to the short programming period from 2004 to 2006. Poland received the highest amount of public input with nearly 500 million EUR.

**Table 2:** Planned expenditures for measure 'g' in the period 2000-2006

Country	Public input (m EUR)	Share of total public input (%)	Country	Public input (m EUR)	Share of total public input (%)
<b>EU-15 2000-2006</b>			<b>New member states 2004-2006</b>		
Portugal	427	21	Cyprus	17	11
France	2816	18	Slovakia	68	9
Greece	350	11	Poland	464	9
Germany	780	6	Malta	2	6
Belgium	44	6	Hungary	58	5
Denmark	37	4	Latvia	24	5
England	26	3	Estonia	10	4
Austria	89	1	Lithuania	30	4
Netherlands	9	1	Slovenia	12	3
			Czech Rep.	13	1

Source: Grey marked: information from questionnaires, others: EC DG AGRI: Country Profiles.

It might be important to know about the level of programming and implementation in the member countries. We used the NUTS levels in Table 3 to identify the differing levels. NUTS means the Nomenclature of Units for Territorial Statistics and is a graded classification of areas that provides a breakdown of the EU's economic territory. The information in Table 3 is only the current state of knowledge.

**Table 3:** NUTS (Nomenclature of Units for Territorial Statistics) Levels<sup>1</sup> used

	AT	DE	GB <sup>2</sup>	GR	PT
Programming	0	1	1	1	1 & 2
Implementation	0	1	1	1	1 & 2
Evaluation	0	1 & 0	1	?	1 & 2

Notes: <sup>1</sup> NUTS level 0: country (2 digits); NUTS level 1: (3 digits): regions <sup>2</sup> GB: Data only from England.

In Germany, evaluations were carried out for each of the 14 federal states (called “Länder”) which have their own programming and implementation for this measure. Additionally, we developed a complete evaluation at the German national level which included national funding. This study was generated by order of the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (short form: GAK).

The characteristics of measure ‘g’ in the ongoing period are shown in Table 4. The share on total public expenditure and the total amount until the year 2005 differs from the planned status in 2000, as you can see comparing data between Table 4 and Table 2. In Greece and Portugal the actual amount exceeds the expectations from 2000. In Germany, the amount is lower than expected for the whole period, but of course, the Länder plan to fulfil their plans. In England, we received only the planning dates for the whole period and therefore the two tables are not different for this data. The share on total public expenditure subsequently raised in Greece, while the share decreased in Portugal and Germany during this period of evaluation.

**Table 4:** Characteristics of measure ‘g’ 2000 – 2005

		AT <sup>1</sup>	DE	GB <sup>1,2</sup>	GR	PT
Share on total public expenditure	%	1.3	4.3	2.5	17.7	14.7
Absolute expenditure	m EUR	89	706	26	631	438
<b>Support intensity</b>		in % of investment sum				
Average	%	18	28	30	.	35
Range	%	10 - 25	24 - 50	.	35 - 50	.
<b>Sources of funding<sup>3</sup>:</b>		in % of total support				
EAGGF	%	50	60	50	69	73
National	%	30	24	50	31	27
Regional	%	20	14	0	0	0

Notes: <sup>1</sup> 2000-2006 <sup>2</sup> England as planned in 2000 <sup>3</sup> In Austria, Germany, Portugal: average.

The support intensity in percent of the investment sum is shown in Table 4 as average and/or total range. The differences of the range are extremely high: from 10 % in Austria to 50 % in Germany and Greece. The support rate of the Azores is not mentioned in Table 4, but is differentiated from 50 % to 75 % (Serrano, 2006.) The wide range in support intensity for Germany, Greece or Portugal depends on the classification into Objective 1 or outside Objective 1 Regions, and in less prosperous regions, respectively.

The sources of funding are described as the share of total amount of support in Table 4. The share of EC funds, national and regional funding can be added to 100 %. In Austria, Germany and Portugal, the average is shown. Table 5 gives the differences between Objective 1 or Non-Objective 1 Regions in Germany. A national fund exists besides the EAGGF. The national fund is called GAK (Joint Task for the Improvement of Agricultural Structures and Coastal Protection). This fund is financed by both the German Länder and the national government. The regional funds exist in different forms in several Länder. The European fund contributes a maximum of 75 % of total support in Objective 1 Regions. Outside Objective 1, the fund adds maximum 50 % of total support. The lines are not totally exhausted yet with respect to different types of investments and guidelines.

**Table 5:** Germany: Sources of funding in % of total support

	EU: EAGGF	National: GAK <sup>1</sup>	regional
Non-Objective 1	46	36	18
Objective 1	73	18	9

Note: <sup>1</sup> **GAK**: Joint Task for the Improvement of Agricultural Structures and Coastal Protection (Gemeinschaftsaufgabe Agrarstruktur und Küstenschutz).

The national and regional part of the support is distributed along the same scheme in both divisions (Table 5): About two thirds are financed from the national fund and about one third from the regions (Länder). Therefore the amount of support depends on the specific financial budget in the Länder, and varies broadly between the regions.

The attending countries provided the information about the sectors offered. Only the top 4 sectors are shown in Table 6. The differences between the support schemes on a programming level in the countries are not known. Additional information is needed to interpret the data.

**Table 6:** Top 4 sectors – share of total input for measure ‘g’ in %

	AT	DE	GB <sup>1</sup>	GR	PT <sup>2</sup>
Milk	26	38	24	10	14
Wine	22				37
Fruit & Vegetables		11	34	41	23
Meat	20	12	15	17	13
Potatoes		10	10		
Cereals	9				
Olive Products				12	

Notes:     = sector with highest share, <sup>1</sup> England, <sup>2</sup> mainland.

For instance in Germany only 9 of 14 Länder offer a support scheme for the milk sector. Nevertheless, the milk sector is represented heavily as the most important sector (top 1) (Table 6). The reason is the significant investment in the milk sector by some large enterprises.

Due to low utilisation of slaughter houses for cattle and pigs in Germany, only the first processing steps after slaughtering are eligible in this sector. These restrictions on the national level caused the meat sector to occupy the “top 2” slot in terms of investment level (Table 6). The investments were lower than in the previous period. The sector meat was offered in the programming in 11 of 14 regions in Germany.

In the fruit, vegetables and potatoes sector the investments are lower than for milk or meat due to the smaller size of applying enterprises (Table 6). Fruit and vegetables are offered in 12 of 14 German regions, potatoes in 10 of 14 regions.

The methods used for evaluating measure ,g‘ are in the different European countries similar as described in Table 7. All surveys acquire primary data. The collection of secondary data, target/ actual comparison and before/ after analysis are also often used.

The EC sets a special emphasis on the topic with/ without analysis and analysis of net effects. For instance, English evaluators asked successful and unsuccessful applicants (Temple, 2006). Most evaluators were not able to collect data from unsuccessful applicants. Greek colleagues actually reported an analysis of net effects.

**Table 7:** Methods used for evaluating measure 'g'

	AT	DE	GB <sup>1</sup>	GR	PT
Primary data	X	X	X	X	X
Secondary data		X	X	X	X
Target/actual comparison		X	X	X	X
With/without analysis			X		
Before/after analysis	X	X		X	
Analysis of net effects				X	

Note: <sup>1</sup> England.

The questionnaires give information about other methods used for evaluating measure 'g'. Case studies are an appropriate method to get a deep view into the sectors. Case studies were used in England, Portugal and Germany. In Germany, we used this method only for special investment projects with very low impact and small amount of primary data. This method requires a lot of time and high costs and was therefore limited to a few enterprises during mid-term evaluation.

Surveys of beneficiaries were used in Greece, England and Germany. In the case of Germany, beneficiaries are committed to fill out a standardized questionnaire before allocation of investment support and a second questionnaire one year after the completion of the investment. The first questionnaire collects the data from the year before the application and the expected situation after the planned investment. Both questionnaires allow for a before/ after analysis with realistic data.

Interviews were done in Greece, Portugal and Germany. For instance in Germany, we interviewed only the administration level of the Länder. Interviews with beneficiaries will not be arranged in this period.

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# **Synthesis of the RDP Mid-Term Evaluation in Germany (16 Länder) and EC 15 in 2005 - Methodologies, Possibilities, Pitfalls and some Selected Results <sup>1,2</sup>**

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## **1 Introduction**

One obligation of the implementation of rural development programmes (RDPs) is the monitoring and evaluation thus, the assessment of the degree of achievement of the overall and specific targets in the different schemes. This assessment is done in several evaluation steps like ex ante, mid-term and the ex-post evaluation. Since the programming and the implementation of the RDPs is based on regional level, many different programmes exist in the many different regions of Europe. The nine federal states (called “Länder”) of Austria, for instance, decided in 1995 - the year of the Austrian membership - to act as one Region and to submit only one RDP. The 16 Länder of Germany still prepare their own RDPs (except Berlin and Brandenburg, Lower Saxony and Bremen, Schleswig-Holstein and Hamburg who decided just recently to collaborate) which ends in 16 (in the future 13) different programmes, different evaluations and monitoring reports.

The European Commission, of course, needs one condensed view of the different areas and policies of the schemes, which means a synthesized answer is needed summarizing the different RDPs in different regions. The author was the sub-contractor for the summary of the German RDPs (mid-term evaluation reports) within a group of consultants.

The article gives an overview of how this synthesis of the different reports was made, the methodology, some selected results and recommendations for future planning.

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<sup>1</sup> The final reports are found under:  
[http://ec.europa.eu/comm/agriculture/eval/reports/rdmidterm/index\\_en.htm](http://ec.europa.eu/comm/agriculture/eval/reports/rdmidterm/index_en.htm)

<sup>2</sup> This paper contains only one project covering the area (programmes) in Objective 2 regions.

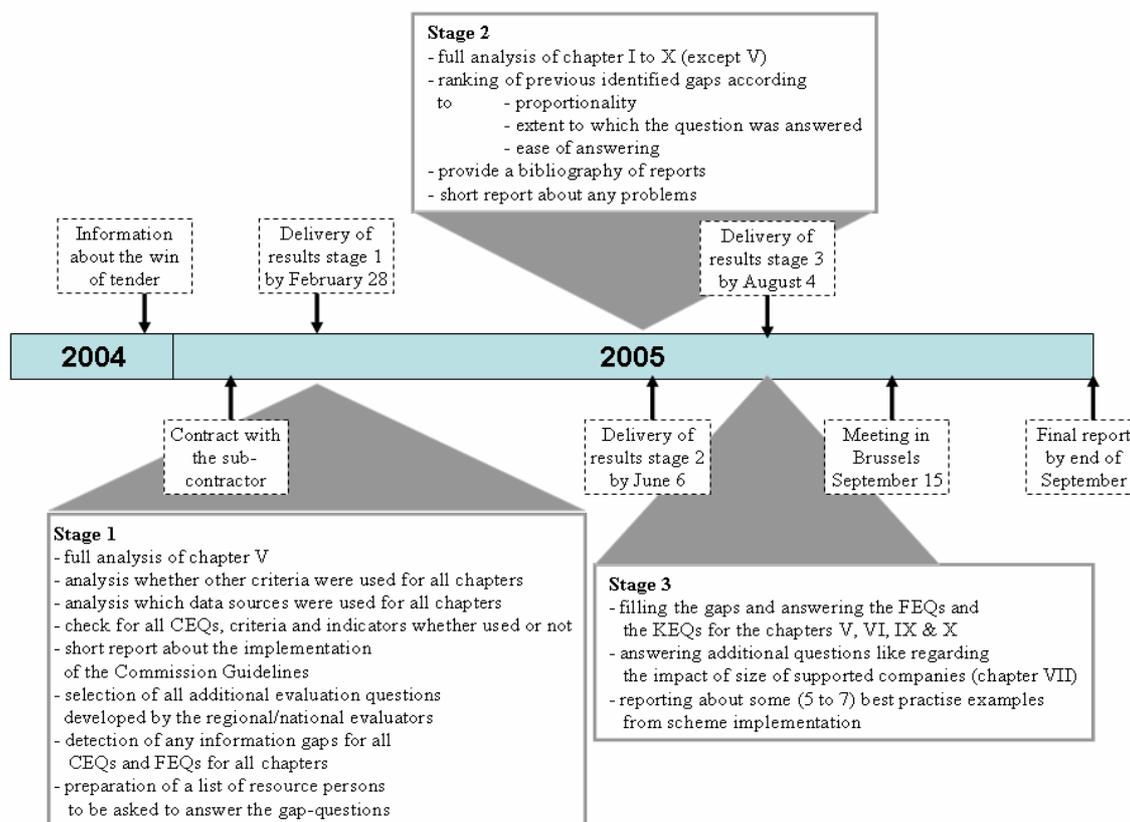
## **2 The scope of the project**

The main questions to be answered were:

- to identify information sources, quantitative and qualitative, for each evaluation question,
- to review all reports and present an overview of the extent to which the Commission's Evaluation Guidelines have been followed, and the extent to which the Common Evaluation Questions (CEQs), criteria and indicators have been answered,
- to present other programme-specific evaluation questions going beyond the given guidelines and used by national, regional evaluators,
- to analyze the national/regional responses to the CEQs,
- to identify information gaps in answering the CEQs and a set of Further Evaluation Questions (FEQs),
- to prepare a progress report for the evaluation work.

### **2.1 The timeframe of the project**

The working period to fulfill the tasks lasted approx. 9 months, although the period for subcontractors was a few months less since all state level data had to be delivered earlier to be summarized into one report by the main contractor. Figure 1 shows the tasks and the milestones during the working period.

**Figure 1:** The timeframe of the synthesis evaluation

Abbreviation in Stage 3: KEQs : Kernel Evaluation Questions.

### 3 The methodological approach

The main contractor (Agra CEAS Consulting based at Imperial College, University of London) proposed a methodological approach to the representatives of the Commission and both parties agreed on a certain approach with a set of instruments. The main instrument was an Excel-based synthesis grid which allowed short answers for several different questions and points. This approach allowed the answers from all 15 member states and all different regions to be summarised.

The questions to be analyzed were regarding the CEQs and FEQs in terms of:

- applicability (was the question answered in your member state?),
- comments on the relevance and the use of the questions, criteria and indicators,
- answers to the evaluation questions (short answers and text answers),

- data sources used (quantitative like FADN<sup>3</sup>, national census and others and qualitative like surveys, interviews and others and literature) and
- quality of the answer and whether there is a gap identified in the RDP.

In some cases the grid provided given answers in tick boxes which allowed an easier summary of the status of the implementation throughout the member states, for example:

- No meaningful answer possible
- Too early to note impact
- On balance a positive change as a result of the scheme
- On balance a negative change as a result of the scheme
- Mixed according to the circumstances (e.g., farm type)
- Mixed according to the region

All Länder reports were assessed to find out whether the Commission's guidelines, e.g. the set of given evaluation questions, criteria and indicators were used. In case some questions could not be answered at that mid-term stage of implementation, these had to be recorded as gaps and suggestions made as to how to fill these gaps. For Germany this was the case for all Further Evaluation Questions because the FEQs were introduced by the Commission for the synthesis evaluation, but had not been part of the mid-term evaluation framework and, as a result, no information on these was available in the reports (Table 1).

**Table 1:** Example for Further Evaluation Questions (FEQ) in Chapter VI (Agri-Environment)

FEQ. VI.4.1	Are the rules regarding good farming practice as currently defined in the rural development programmes for the agri-environment and LFA measures transparent and are the concrete definitions verifiable?
FEQ. VI.4.2	Do voluntary measures (agri-environment measures) have added value compared to compulsory standards (polluter pays principle)?
FEQ. VI.4.3	Have the proposed standards of Good Farming practice addressed properly the environmental problems identified in the areas where agri-environment measures have been applied?
FEQ.VI.5.1	In how far does the application of agri-environment measures or bundles of such measures correspond to site-specific requirements?
FEQ.VI.5.2	Does it follow the definition of priorities identified in the area concerned?
FEQ.VI.6.1	Do payment levels adequately reflect costs incurred and income foregone for agri-environmental measures?
FEQ.VI.6.2	Is there evidence of insufficient or excessive payments to recipients of agri-environmental support?
FEQ.VI.7.1	Have agri-environment measures influenced changes in production technology? If yes, to what extent has this been the case?

<sup>3</sup> FADN: Farm Accountancy Data Network

Due to the extent of FEQs – the Chapters I, III, VIII and X had a set of FEQs – a selection of those questions (gaps) and regions (Länder) had to be made where the most important gaps could be filled within the scope of the project. One selection criteria was the proportionality which refers to the importance of the gaps. Only the gaps in the most important schemes with respect to the budget in the Member states had to be filled. A second criteria was the ease of gap-filling thus, only where the effort for answering the questions related to the scope of the project the gap-filling was possible.

In the case of Germany the selection with the criteria of proportionality was made according to the data in Tables 2 and 3.

**Table 2:** Proportionality classification of the RDP schemes: importance of EAGGF input to a scheme compared to the total EAGGF contribution to the RDP in Germany as one criterion for the ranking of gaps to be filled

% of the scheme in the RDP budget (EAGGF share)	Proportionality of the scheme
<1 %	1
1-2 %	2
2-4 %	3
4-6 %	4
6-8 %	5
8-10 %	6
10-15 %	7
15-20 %	8
20-30 %	9
>30 %	10

**Table 3:** Identification of the proportionality of different schemes for the purpose of ranking identified gaps in Germany: Importance of the schemes in the EAGGF contribution to each RDP budget classified according to Table 2

Chapter	BB <sup>1)</sup>	BE	BW	BY	HB	HE	HH	MV <sup>2)</sup>	NI	NW	RP <sup>1)</sup>	SH	SL	SN	ST <sup>2)</sup>	TH	Germany
I	-	?	5	-	3	5	4	-	4	5	6	3	8	-	-	-	5
II	-	1	1	-	1	1	1	-	-	1	3	-	1	-	-	-	1
III	-	-	-	-	1	1	1	-	1	1	-	1	-	-	-	-	1
IV	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
V	10	?	8	9	10	9	1	9	1	7	9	3	10	3	7	8	9
VI	10	?	10	10	10	7	1	10	3	9	10	2	10	10	10	10	10
VII	-	-	2	2	1	3	1	-	6	5	3	3	-	-	-	-	3
VIII	2	-	7	3	4	4	1	-	4	6	6	4	1	3	4	3	4
IX	-	?	5	8	6	9	10	-	10	7	9	10	9	-	-	-	8

Exceptions:

1) mark refers to the total amount of public funding (EU+national) spent 2000-2002

2) mark refers to the sum of the indicative programme planning 2000-2006

Abbreviations of the Länder: BB: Brandenburg, BE: Berlin, BW: Baden-Wuerttemberg, BY: Bavaria, HB: Bremen, HE: Hesse, HH: Hamburg, MV: Mecklenburg-Western-Pomerania, NI: Lower Saxony, NW: North Rhine-Westfalia, RP: Rhineland-Palatinate, SH: Schleswig-Holstein, SL: Saarland; SN: Saxony, ST: Saxony-Anhalt, TH: Thuringia.

## 4 Some selected results of the synthesis

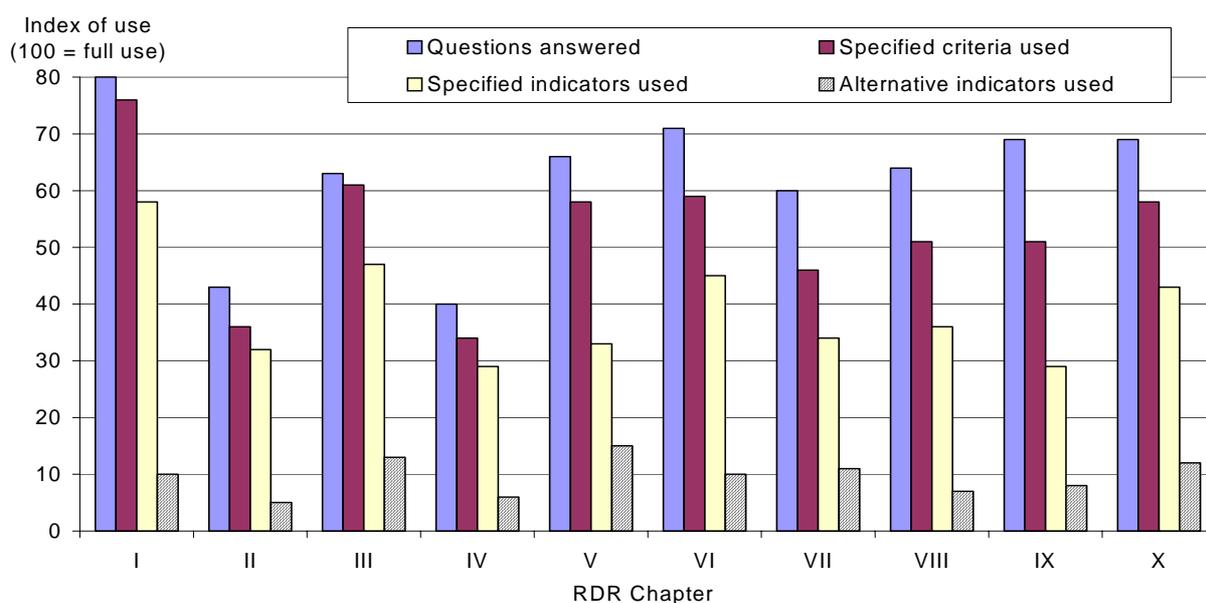
### 4.1 Pitfalls

The gap-filling process was an exercise which needed the support of certain resource persons mainly in the administrations of the Länder (State Ministries) and the Federal Ministry of Agriculture. But a previous survey showed that nobody knew about the existence of Further Evaluation Questions thus, the attendance of the representatives after finishing the mid-term evaluation process and after submitting the reports to the European Commission and the acceptance of the reports by the Commission was quite low. Since monitoring and evaluation duties are felt more as a burden rather than as a chance for quality improvement the administrators in charge in some cases refused to support the synthesis project. So the most delicate part of the synthesis project was to fulfil the demand of the ordering party (EC) with the free collaboration of the official authorities.

### 4.2 The use of the Evaluation system (CEQs)

The question of whether the evaluators in the different member states followed the Guidelines of the Commission and the extent to which these Guidelines / CEQs are understood as mandatory or as advices is always under discussion and leads to the question about the rate of adoption of the set of questions and whether other criteria and indicators were developed and used.

**Figure 2:** The use of CEQs and alternative criteria and indicators in the different schemes throughout all RDP-mid-term reports



Source: Agra CEAS Consulting (2005a).

### 4.3 Summary of RDP mid-term reports

One example of how the different Member states answered the CEQs is given with the investment scheme and the first CEQ (Table 4). The trend of the short answers is positive, so in general the statement that the investment scheme contributes to a better income of the supported farmers / holdings is clear.

**Table 4:** Short answers to the CEQ 1.1: To what extent have supported investments improved the income of beneficiary farmers?

	At	Be	Dk	De	Es	Fin	Fr	It	NL	Pt	UK	Sw	%
On balance a positive change			■		■		■		■	■			33
Mixed according to circumstances							■						8
Mixed according to region		■											8
No change	■												8
On balance a negative change								■					0
Too early to note impact				■		■		■			■		33
No meaningful answer possible												■	8

Source: Agra CEAS Consulting (2005b, page 221).

Although a first positive trend could be seen, the conclusion must be careful and with respect to the very short implementation of the support scheme (2000-2002 and often with some delay at the starting point). So the synthesis evaluation gave the following report to the success of the investment scheme regarding the income target (Agra CEAS Consulting, 2005a):

“It is generally difficult to assess the impact of investments on income in the short-term as there is often an initially negative impact while the investment is made and before the benefits become apparent.

In most cases the lack of investment maturity at the mid-term stage meant that the positive impacts expected from this measure were not tangible. Furthermore it is widely anticipated that impacts from these investments are medium- to long-term in nature. To what extent this view has informed monitoring programmes is unclear but it is anticipated that the assessment of this measure will develop (or will need to develop) during the second half of the current programming period.

It is noted that in the case of Germany some negative impacts have been observed, but it is considered likely that these will be short-term (investments are usually based on business plans and the eventual outcome would have to be positive in order for a rational farmers to proceed, although not all investments will have income increases as an objective, for example, those targeted on improvements in working conditions).”

## 5 General conclusions

The following general conclusions were drawn out of the synthesis project (Agra CEAS Consulting, 2005a, the bold formatting by the author).

“**A smaller set of core questions** relating to more broadly relevant issues such as income and employment, etc., would increase the general relevance of the evaluation system. Greater freedom should be allowed in areas where regional context is more likely to be a factor in terms of relevance.

Many indicators require an **assessment of change over time** and in this context greater effort should be made to establish suitable baselines.

Whilst having central evaluation guidelines is considered to be useful a greater degree of **flexibility in the choice of indicators** should be permitted - the point is to answer the evaluation questions, not address the indicators as such. Also, it should be recognised that certain data requirements impose a greater burden on beneficiaries and a greater cost on implementing authorities. Where possible, specified indicators should be simple rather than complex.

A greater effort should be made to persuade regions/Member States of the use of evaluations in feeding in to better policy design in order to **encourage monitoring systems** more capable of facilitating evaluation.

In order to ensure thorough evaluation **in Objective 1 Regions rural development measures should either be evaluated separately**, i.e. outside the framework of the wider Operational Programmes and Single Programming Documents, or they should be evaluated alongside the measures funded through EAGGF Guarantee.

Whether or not the above recommendation is taken up, **monitoring in relation to rural development measures should be encouraged inside Objective 1 areas.**”

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# **Improving Processing and Marketing of Agricultural Products – Organisation, Problems and Results of Evaluation in Austria**

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## **1 Introduction**

As a basic strategy to promote a sustainable, competitive, and multifunctional agriculture and forestry in intact, viable rural areas, the Austrian Programme for Rural Development defined sets of measures relating to “Structural improvement and preservation of substance”, “Improvement of competitiveness”, and “Compensations for services and incentive scheme.” The present paper addresses the organisation of the evaluation of the measure “Improving processing and marketing of agricultural products (P&M)” and describes the results of evaluation between 2000 and 2004. The update evaluation and the final evaluation of this measure were conducted at one time.

## **2 Organisation of evaluation in Austria**

In Austria the evaluation is centrally organised and managed by the Federal Ministry of Agriculture, Forestry, Environment and Water Management. One representative of the Ministry functions as the Main Officer for evaluation. He coordinates and manages the organisation, coordination and the meetings related to evaluation. In addition to this Main Officer, experts from the Ministry function as coordinators for each chapter of the regulation (EC) 1257/99. These coordinators stand in close contact with the evaluators by managing the evaluation of the individual chapters and supporting the evaluators, e.g., on receiving data. The evaluators are experts from research institutes. Most of the institutes are subordinate to the Ministry, some are independent institutes. The reports on each individually evaluated action have to be transmitted to the Ministry, where the single reports are combined into a full report. This full evaluation report is submitted to the European Commission.

The evaluation is followed by two bodies: the Steering group and the Agri-Environment Advisory Committee. The Steering Group consists of members of the Ministry and controls and steers the evaluation process from the top. The Agri-Environment Advisory Committee consists of members of the administrations as well as of Non-Government

Organisations (NGOs), and protects the political interests of the individual parties and groups.

### **3 Process of project approbation**

The European Recovery Program (ERP) Fund is of central importance within the process of project approbation. The P&M measures are implemented in this Fund. In this function informs all the affected economic sectors on possibilities for subsidies.

The applying enterprise has to submit a request for subsidies to the ERP-Fund. The experts of the ERP-Fund work out reports on each applied project. These experts' reports are the basis for the decision of the Advisory Board for subsidising or refusing projects. This board consists of the Federal Ministry of Agriculture, Forestry, Environment and Water Management, the Ministry of Finance and the Federal States of Austria. If a project is approbated, the ERP-Fund makes a contract with the company concerned to subsidise the project. During the project the ERP-Fund is responsible for the audit of the investments. In this function it organises and controls the payments of the subsidies.

The company sends accounts of eligible costs to the ERP-Fund. After an audit and a positive response by the Federal States to allow the subsidisation, the paying agency market regulatory body Agrarmarkt Austria (AMA) can start paying subsidies to the applying enterprise.

### **4 Data, method and problems of evaluating the measure “Improving processing and marketing of agricultural products”**

Evaluation data consisted of information from requests, experts' reports and the enclosed data of the paying agency. Before and after analyses were used because the information in the applications and expert reports contained information on the situation prior to and expected following the investments.

According to the quality of the data, only descriptive statistical values like mean, median, minimum, maximum, sum, rate of increase and rate of decrease were calculated.

During the evaluation many problems occurred. One basic problem was the identification of the correct number of current projects. As the evaluation took place within the programme period, new projects were approved again and again, but the data of these projects were not available at that time.

The data had to be examined before each statistical calculation, because some of the data were missing or were wrong. For example the variable “storage capacity“ included different measurement units (such as number of pieces and number of pallets) in some sectors. In this case only the expert reports could tell the truth, but not all of them were available.

Also the statistical difference of “zero” and “no entered value” was not always considered within the database, but this difference can affect the results enormously. Therefore the cells of the database had to be controlled, which was very time-consuming.

For some evaluation parameters no data were available or some evaluation parameters were surveyed only partially, therefore the number of evaluable projects could vary from parameter to parameter.

## 5 Results

In April 2005, 386 projects were approved, most of them in the sectors wine (93 projects), meat (75 projects), milk (57 projects), and crops (51 projects). In the sector floriculture only one project took place, therefore this sector remains unconsidered in the following results.

For these projects 89.4 million Euros in subsidies were approved. Most of the subsidies flowed to the sectors milk, meat and wine. The total eligible costs for investments amounted to 747 million Euros, meaning that about 12% of eligible costs were subsidised.

The EC provided five question for the evaluation of the P&M measure. These evaluation questions were broken down into criteria, indicators and parameters. The parameters were used for the analysis. In a first step the single parameters of each sector were analysed with descriptive statistical methods. Using conversion keys, the kind of development (positive, negative or neutral) was found out for each parameter in each sector. In a last step, the parameters of one evaluation question were added up to one positive, negative or neutral value without considering the loading of the parameters.

The **first evaluation question** asks whether the investments affected an increase of competitiveness of agricultural products through the improved and rationalised processing and marketing of agricultural products.

The number of projects with ISO 9000-Certification, volume of processing and marketing, technical capacities, cold storage capacities, utilisation of machineries and operating expenses before and after investment functioned as concrete parameters.

**Table 1:** Aggregated matrix of evaluation results

Sector	Question 1	Question 2	Question 3	Question 4	Question 5
Live cattle	-	+	+	+	+
Milk	+	+	+	+	+
Meat	+	+	+	+	+
Poultry	+	+	+	+	-
Eggs	+	+	+	+	+
Arable crops	+	+	+	+	+
Seed	0	+	+	+	+
Fruit, vegetables, potatoes	+	+	+	+	0
Oil crops, medicinal, other herbs	+	+	+	+	+
Fibre flax, hemp	+	+	+	0	-
Wine	+	+	+	+	-

Table 1 shows that most of the sectors have positive effects on the competitiveness of agricultural products through the measure. Only the sector live cattle shows negative impacts, because in this sector only two of six parameters could be analysed. Of these two parameters, one was zero, which means that no change took place, and the other one (volume of processing) was negative – therefore the aggregated results are negative. Neither positive nor negative developments took place in the seed sector.

The evaluation **question 2** deals with the increase of added value and competitiveness of agricultural products by improving the quality of agricultural products. The analysed parameters were the share of volumes with quality examination, volume ratio of products with first quality, volume ratio of products with quality labels (AMA-label and other labels) as well as increase of the added value within the enterprise before and after investment. Table 1 shows that positive developments regarding increased added value and competitiveness took place in each sector.

The **third question** is about the improvement of the situation of the basic agricultural production sector. Only one parameter was analysed: the number of long-term delivery contracts with farmers before and after investments. The table shows positive impacts of the investments to the number of long-term delivery contracts with farmers throughout the sectors.

The evaluation **question 4** wants to find out whether the measure helped to improve health and animal welfare. The following indicators were used for analysis: share of investments used for an improvement of nutritive and hygiene quality of animal feed and products for human consumption, share of investments used for an improvement of animal welfare and the number of new jobs added, divided into men and women.

Throughout the sectors positive results were reached. Only the sector fibre flax and hemp levelled off. In this sector no new jobs were added through the subsidisation and the other indicators were not relevant for the sector fibre flax and hemp.

A huge number of new jobs was added in the sector meat (a total of 279.5 jobs: 173 for men and 106.5 for women) and in the sector milk (total 211 jobs: 166 for men and 45 for women).

The **last evaluation question** addresses the protection of the environment. For this purpose the following indicators were analysed: change of the share of products from organic or integrated agriculture, share of investments used for environmental investments, changes in water and power consumption.

The table shows heterogeneous results. The measure affected positive impacts in the sectors life cattle, milk, meat, eggs, arable crops, seed as well as oil crops, medicinal and other herbs. Neither positive nor negative effects took place in the sector fruit, vegetables and potatoes: positive developments in the share of products from organic or integrated agriculture and in the share of environmental investments were neutralised by negative effects on water and power consumption.

Negative effects in the poultry sector arose because of negative developments in the water and power consumption as well as of the unchanged share of products from organic or integrated agriculture. On the other hand, the share of environmental investments was high, but could not affect a positive overall result.

Negative environmental effects also occurred in the sector fibre flax and hemp. The reasons were that the share of products from organic or integrated agriculture was not requested in this sector, that no environmental investments took place, and that the power consumption increased significantly, as well as that the water consumption remained unchanged. However, only three projects were subsidised in this sector, therefore the results are not representative.

The last negative development took place in the sector wine, because of an unchanged share of organic products and negative developments in water and power consumption. These developments, compared with a positive share of environmental investments, add up to a negative overall result.

## 6 Conclusions and recommendations

The paper finishes off with some recommendations regarding the evaluation method. On the one hand an improvement of the data quality is necessary to get more significant results. But also the data responsibility should become more transparent. To increase the significance of evaluation results, surveys of participating enterprises and non-participating enterprises would be necessary. A comparison of these two groups would ease the analysis of subsidy effects.

General conclusions and recommendations are that the subsidisation of capacity widenings shall rather be avoided and processing cooperations, marketing strategies, marketing cooperations as well as products innovations should be strengthened in future.

For the sector milk an examination of the widening of capacities is necessary, horizontal cooperations and product innovations are desirable. In the sector meat the capacities should rather not be widened and the development of vertical cooperations should be supported. In the poultry sector and the egg sector, the cold storage capacities are big enough, but an increase of quality labels seems to be necessary within the poultry sector. The egg sector could profit by the development of marketing strategies. In the fruit, vegetables, and potatoes sector overcapacities should be avoided. The pressing capacities in the sector of oil crops should be examined and in the arable crops sector more vertical cooperations should be realised.

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# **Improving of Processing and Marketing of Agricultural Products – Assessment of Projects**

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The Austrian IPM measure is evaluated with the help of indicators that are surveyed during the application process. The applicants have to provide data on the economic situation of the enterprise and on the investment project. In order to estimate the effects of the investment, current and expected values are surveyed.

The application has to be submitted to the management authority (ERP-Fund). Here an expert checks whether the form is filled out completely and correctly and suggests if the enterprise should be supported or not.

The experts appraisal is based on an “objective assessment scheme”. This scheme works on the basis of criteria, which comprise three dimensions (I, II, III). Based on data provided in Part I the expert decides whether the enterprise is eligible for promotion. The promotion intensity is subject to the answers given in Parts II and III.

***I. Economic situation of the enterprise: On this level the focus is on criteria concerning the enterprise itself on the one hand, and the current market tendencies (product, market) on the other hand.***

- Enterprise
  - Turn over of the last years
  - Profit
  - Structure of balance sheet
  - Internal organization
- Product, market
  - Development of demand in the main production fields
  - Position of the enterprise on the market
  - Distribution system
  - Value added of the production

***II. The investment project: This level includes Targets of the project, Effects of the projects - strategic implications for the whole enterprise, Project scope / project risks.***

- Targets of the project:
  - Improvement of the production and cost structure
  - Improvement of quality and hygiene conditions
  - Development of new markets, product innovations
  - Processing innovations
  - Environmental protection
  - Share of organic products (bonus in subsidy intensity)
- Effects of the project – strategic implications on the whole enterprise:
  - Improvement of the market position (higher market shares)
  - Open up new markets
  - Increase of turn over
  - Improvement of value added
- Project scope / project risk:
  - Relative extent of the investment volume (reduction in subsidy intensity?)

***III. Economic relevance***

- Connection of the enterprise with the basic agricultural production sector
- Positive influence of the project to the agricultural producers
- Regional and job market effects
- Model character in the food sector
- Horizontal cooperation
- Vertical integration

Besides these basic criteria, there are additional criteria that can alter the promotion intensity. If, for example, the share of organic raw material exceeds 50 % / 20% the support intensity increases by 5 % / 2,5 % (“Organic bonus”). On the other hand there’s a decrease in support intensity by 5 % if the investment is the second promoted since EU-co financing started in 1995 (mainly because of budgetary reasons in the period 2000-2006). On the other hand, the expert’s opinion could result in a decrease in support or in a rejection of the application because of windfall gains (checked on the basis of cash flow and depreciation). Furthermore there’s a bonus for applicants in Objective-1 regions.

Based on the ERP experts' recommendations, the decision making advisory board authorizes the promotion. It is paid by the paying agency "AMA". AMA also collects all data on RDM and provides it to evaluators.

For evaluation purposes the application form data as well as the paying agency data is used. The indicators are distinguished in general indicators which are valid for all sectors and sector specific indicators:

General indicators:

- Share of environmental investments
- Share of hygiene investments
- Export rate
- Share of organic raw material
- Share of GMO (Genetically Modified Organism)
- Sewage (in relation to output)
- Refuse (in relation to output)
- Energy consumption (in relation to output)
- Water consumption (in relation to output)
- New workplaces (male, female)
- New processing technologies implemented?
- Food Safety / Quality Safety measures implemented?
- Traceability measures implemented?
- Share of "High Quality"
- Share of "Quality labelled products"
- Share of "brand-production"
- Contracts between producers and processors (for several years)

Sector specific indicators:

- Milk:
  - Storage capacity
  - Actual use of raw milk processing capacities (milk, tub commodities, cheese)
  - Cold storage capacities
  - Cost per kg milk
  - Share of environmental investments

- Meat and poultry:
  - Quantity of slaughtering
  - Slaughter capacity
  - Quantity of cut meat
  - Cutting capacity
  - Quantity of processed meat
  - Processing capacity
  - Cooling / chilling capacity
  - Running costs per kg meat (slaughtered, in cutting or processing)

An important issue to meet the requirements for a well thought-out “IPM-Evaluation-Concept” is in the Austrian view the correspondence of “Assessment scheme and Assessment indicators respectively” with “Measure indicators”.

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# **Support to Processing and Marketing of Agricultural Products in Portugal**

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## **1 Introduction**

This paper starts by showing how the measures determined under Reg. (EC) No 1257/99 were implemented in Portugal. It follows by presenting the measure for implementation of the Improvement of Processing and Marketing of Agricultural Products (P&M) in the country, focusing on two specific programmes, for which the main execution and evaluation results are detailed. The main methodological tools used in the P&M measure evaluations will then be briefly presented. The paper finishes by discussing the use of the EC's Common Evaluation Questions in the evaluation of the P&M measure's implementation, showing how they were addressed in the Portuguese evaluations.

## **2 Processing and marketing of agricultural products in Portugal**

Considering that Portugal was an Objective 1 country, most measures under Reg. (EC) No 1257/99 are financed by EAGGF-Guidance and implemented through Operational Programmes. The exceptions are agricultural land afforestation, early retirement, agri-environmental measures and compensatory allowances, which are financed under EAGGF-Guarantee.

Support to processing and marketing of agricultural products in Portugal (under articles 25° to 28° of Reg. (EC) No 1257/99) is granted as part of eight Operational Programmes with three different scopes:

- as an independent measure integrated in the Operational Programme for Agricultural and Rural Development, for the entire mainland (AGRO);
- as a part of the Agricultural and Rural Development measures (AGRIS) of the five mainland regional Operational Programmes for Norte, Centro, Lisboa e Vale do Tejo, the Alentejo and the Algarve;
- as a part of the Agricultural and Rural Development measures of the two regional Operational Programmes for the archipelagos of Madeira and the Azores.

The measures under AGRO and AGRIS are complementary and mutually exclusive. The former supports projects which comprise an eligible investment of over 50,000 € while the latter supports smaller local projects under 250,000 € for regional quality products. In Madeira and the Azores no such distinction is made.

Out of curiosity, Agroges conducted the 2003 intermediate evaluations (and their 2005 update) for five of the eight programmes – AGRIS Norte, Centro and the Algarve; the Azores and Madeira.

Given the large number of programmes comprising P&M measures, it was decided to focus only on the most relevant ones. The following Table details the financial resources used in each programme by the end of 2005.

**Table 1:** Share of financial resources used in each programme by the end of 2005

	AGRO	AGRIS*	The Azores**	Madeira***	TOTAL
P&M Investment	87%	3%	9%	1%	100%
P&M Support	78%	5%	15%	2%	100%

Notes: \* 5 Programmes; \*\* PRODESA; \*\*\* POPRAM

Taking into account the figures presented in the Table, it was decided to focus only on the two more relevant Programmes, AGRO and PRODESA, which account for around 95% of the total investment and 93% of total support to P&M of agricultural products in Portugal.

The following analysis will therefore be based on the intermediate evaluation report for AGRO, conducted in 2003 by INA and ICADR, and on the intermediate evaluation report for PRODESA and its update, conducted in 2003 and 2005 by Agroges as member of a consortium including also Quaternaire, Quasar and CEDRU.

### 3 Main implementation and evaluation results

In this section the main results of the implementation of the P&M measure through the two above-mentioned programmes are briefly shown, as well as the main results from their respective evaluations.

The AGRO Programme had a forecasted total public expenditure of 365 M€ for the 2000-2006 period, which represented 19% of the total Programme's expenditure. Until the end of 2004, 522 investment projects were financed, representing 83% of the above-mentioned

figure and accounting for a total eligible investment of 917 M€ However, only 37% had been executed at the time.

The projects were directed mainly at the wine sector, which accounted for about a third of the number of projects and of eligible investment. The milk processing, fruits and vegetables and oil (mostly olive oil) sectors were also important. Regionally, Norte was the most relevant region, both in terms of number of projects and eligible investment, followed by Centro and the Lisbon region. Investments were mostly directed at modernising existing units (56%), company restructuring (20%) and new units (15%). Almost half (49%) the eligible investment was directed to buying processing equipment, while 20% was spent in buildings and constructions. 43% of the investment was conducted by non-SMC (small and medium-sized companies), 40% by medium-sized companies and 18% by small and micro-sized companies. Only 20% of the number of projects had some sort of certification (HACCP, ISO 9001 and ISO 14001).

The evaluators found that the measure had significant impact on the units supported by increasing their gross added value (GVA) by around 30%, which was especially relevant in some regions. The GVA increase was also especially relevant in some of the sectors considered as “priority sectors”, such as wine, olive oil, fruits and vegetables and milk and milk products, which were also the ones with the higher number of applications. Therefore, the measure had a significant impact in increasing the competitiveness of the supported units and, consequently and at least partially, of those sectors.

The P&M measure also had the significant impact of contributing to the introduction of quality and environmental features in the industrial units, thus improving their market access, reducing their pollutant impact and improving the environment and preserving the natural resources. The investment in quality and environmental features has also promoted a “spill-over” effect in the “upstream” agriculture production sector.

It is also considered that the measure is well adjusted to the multi-purpose goals of the applications, providing incentives for several types of investment, in certain cases in cooperation with other measures and funds. However, the evaluators considered that a greater emphasis should be given to regional and “filière” based strategies, as well as to training and human resources promotion, product and procedures certification and “dynamic competitiveness factors,” such as marketing, promotion, branding and internationalisation.

For the Azores we have more recent data (up to the 30th June 2005). Until then there were 30 P&M investment projects, corresponding to a total eligible investment of 106 M€ and to a public expenditure of 65 M€ (average support of 61 %). This measure was extremely

relevant in the archipelago, representing 52% of the eligible investment and 45% of the EAGGF expenditures in the region.

Taking into account the features of the Azorean agricultural sector, it is no surprise that most of the projects focused on the milk-processing sector. In fact, 21 of the 30 projects, accounting for 83% of the eligible investment, were in this sector. Some of the other projects were in related sectors, such as animal feeds (two projects) and meat processing (two projects). Of the eligible investment, 68% was directed at modernising existing units and the remaining 32% at creating new units.

The evaluation concluded that the measure had a significant impact in inducing increased competitiveness in the dominant regional sector, mostly due to cost reduction rather than increased added value, promoting the stagnation of the current production model. The evaluation also concluded that the differentiated support rates (from 50% to 75%, while in the Mainland they are 30% to 50%) are generically unjustified, promoting unnecessary investment.

#### **4 Evaluation methodologies**

The intermediate evaluation of AGRO was based on a transversal methodology, common to all measures, as well as specific methodologies used in the evaluation of each measure.

The transversal analysis used the following methodologies:

- document analysis – programming documents, Commission Guidelines, the Programme's annual execution reports, general and agricultural statistics, among several others;
- interviews with the Programme's managers and high-level civil servants in charge of several institutions and of the Ministry's regional delegations;
- analysis of the Programme's project database.

Based on these information sources, the evaluators conducted a global analysis on how the Programme performed in the following items:

- strategic relevance – priorities and objectives,
- strategic coherence – internal and external coherence,
- contribution to the national CSF objectives,
- effectiveness and efficiency – pertinence and consistency of the objectives, common evaluation questions and indicators;

- integration of transversal concerns – environment, equality of opportunities, information society,
- management system – follow-up system, management and control procedures, effectiveness of the information system,
- community added-value – Programme’s contribution, criteria and
- efficiency reserve – management, financial execution, leverage effect and effectiveness criteria.

The specific P&M evaluation was based on the following methodological tools:

- agricultural and agri-industrial statistics, economic accounts of agriculture and other statistics,
- legislative and internal documents implementing the measure and its procedures,
- interviews with the Programme’s managers and central and regional civil servant involved in the measure’s implementation,
- interviews with the agri-industrial sector stakeholders,
- questionnaire to a sample of the measure’s beneficiaries and
- project database.

The measure’s documents and the interviews were mainly used in evaluating the measure’s design and programming, the management and follow-up procedures and the common evaluation questions.

The questionnaire analysis was based on the answers 42 out of 147 beneficiaries at the time. This sample was adjusted, with 30 valid answers considered. It had a wide scope, covering issues such as the application procedures, the measure’s promotion and information, the level of support, the administrative and management procedures and the follow-up by local technicians.

The project database allowed for several analyses from different perspectives:

- regional distribution,
- sectoral distribution,
- financial execution,
- support levels,
- proposed and eligible investment,
- investment strategies,

- company size,
- job creation,
- installed capacities and
- gross added value.

The measure's evaluation also comprised the analysis of its compatibility and complementarity with AGRIS and POE (the mainland's Operational Programme for the Economy).

For the Azores the methodology used was much more diffuse, because P&M is merely a sub-measure of one of the two agricultural measures under the regional Operational Programme. However, being the most relevant sub-measure within the agriculture measures, it drew a particular focus during both the 2003 mid-term evaluation and the 2005 update.

In both the 2003 and the 2005 reports, the evaluation was based on three main sources of information:

- the Programme's project database,
- interviews with the main stakeholders – managers, civil servants, sectoral associations and beneficiaries and
- case studies of the most relevant projects.

The 2005 update, being a less detailed evaluation, focused on just a few measures, including P&M. The ToR (Terms of Reference) presented a series of "evaluation questions" that were individually addressed by the evaluators:

- To what extent do the approved projects correspond to the measure's goals and contribute to increase the sector's competitiveness and sustainability ?
- Are the support rates adequate to the needs and expectations of the beneficiaries ?
- What adaptations should be considered for the next programming period ?

## **5 Common Evaluation Questions**

The European Commission proposes five Common Evaluation Questions for the P&M of agricultural products measure, which should be addressed in every evaluation of the measure. For each question there are several evaluation criteria to which one or more indicators correspond.

These five questions focus on the main areas the measure is supposed affect in a positive way:

1. To what extent have the supported investments helped to increase the competitiveness of agricultural products through **improved and rationalised processing and marketing** of agricultural products?
2. To what extent have the supported investments helped to increase the added value and competitiveness of agricultural products by improving their **quality**?
3. To what extent have the supported investments improved the situation of the **basic agricultural production sector**?
4. To what extent have the supported investments improved **health and welfare**?
5. To what extent have the supported investments protected the **environment**?

There is also a set of Further Evaluation Questions:

- A. To what extent are there differential impacts according to company size?
- B. If yes, what is this impact?
- C. Is there any difference in impact by size in terms of:
  - more rational processing and marketing procedures;
  - change in processing/marketing costs per unit of basic product thanks to assistance;
  - share of marketed products from assisted processing/marketing lines sold with quality label;
  - share of gross sales of basic agricultural products that are sold to outlets safeguarded or created thanks to the assistance;
  - improvements to workplace safety;
  - improvements to animal welfare;
  - improvements to environmental impact.

A thorough answer to all of these questions, especially if all the proposed indicators could be calculated, would evidently provide a very complete view of the measure's implementation and would, therefore, probably represent an extremely useful evaluation tool. The Portuguese situation, however, gives a different perspective. In both the evaluations considered these questions have been addressed to a very limited extent, mainly due to the lack of relevant and detailed statistical information.

The AGRO evaluation report clearly mentions that the evaluators should not “waste resources trying to evaluate what is not possible to evaluate”. In this evaluation some of

the Common Evaluation Questions were addressed in the scope of the interviews with beneficiaries and programme administrators, providing qualitative, but fairly generic, answers.

In the Azores the Common Evaluation Questions (CEQs), and their respective Criteria and Indicators, are presented as tables in the annexes, usually with only very brief comments. Most indicators are even not quantified due to lack of statistical data. The ones that are quantified are usually based on the goals set in the project application forms rather than on their true impacts.

We may therefore conclude that the CEQs have had little relevance in the intermediate evaluations of the P&M measure in Portugal. In my view this is mainly due to three sets of reasons.

On the one hand, this is clearly a result of a lack of statistical data on the programmes' implementation. The information system designed to collect and organise all the information concerning the programmes' implementation was not available. As a result, the institutions responsible for the programmes developed "contingency plans", designed to gather the most important statistical and information data, focusing mainly on execution (no. of projects, no. of beneficiaries, areas, investment, aid, etc...). Other information and data useful for the evaluation process, namely for indicator building, is also not available due to a lack of coordination between different institutions.

On the other hand, for the intermediate evaluations, it is very difficult, if not impossible, to obtain reliable information within only a couple of years after the programmes' beginning, when most approved projects are still being implemented. This is mainly true for specific issues such as environmental impacts (landscape, biodiversity, etc...) or biophysical indicators (biomass growth, carbon storage, etc...), market trends.

Finally, the list of indicators is too extensive. More importantly, many indicators are virtually impossible to obtain satisfactorily or would only be obtainable through an extremely thorough project database that would include monitoring data for each project for several years after the project's implementation and with very extensive individual information. Such a database is obviously extremely difficult to implement.

## **6 Conclusions**

The intermediate evaluations of the P&M measures in Portugal were of extreme importance in assessing the adequacy of their implementation and of their mechanisms.

However, although the evaluations clearly indicate that the measure is very important for the competitiveness of the individual units supported, the intermediate evaluations lack the time distance needed for a full assessment of their true impact on a sectoral and regional competitiveness perspective. In fact, these evaluations are essentially based on the analysis of the project databases – allowing for some sectoral and regional considerations – and on the projects' own quantified goals in terms of gross added value, employment, sales, exports, etc. The analysis, therefore, is based on these goals (always very positive and optimistic), rather than on statistics on the sectors' and regions' concrete evolution, which are harder to obtain and are only available a few years afterwards.

In Portugal the evaluation exercise is made even more difficult due to the lack of a global and integrated information system. This system has been conceived but not yet implemented. As a result, the management of each programme is based on independent contingency systems, which do not integrate the collection of many of the evaluation indicators needed for a full impact analysis.

There is also a lack of a global statistical system, which would integrate information existing in several institutions and organisations, and which would provide detailed data on the evolution of the agricultural, agri-industrial and forestry sectors, both sectorally and regionally, thus allowing for a full analysis of the measures' true impacts.

As previously mentioned, this situation also has an implication in fulfilling the obligations concerning the EC's Common Evaluation Questions. In fact, while these are generally considered as adequate although sometimes difficult to answer through the proposed indicators, they are generally addressed in a very superficial manner due to the lack of statistical information, namely on issues such as the environment, health and well-being, installed capacities.

As a conclusion we may say that the P&M measure was very important in Portugal, mainly in helping to restructure some relevant sectors such as wine, milk processing, and fruits and vegetables. Investment has focused mainly on equipment and construction and very little on issues such as quality, training, environmental protection, labelling, and promotion.

The evaluations were essentially based on programme statistics and databases, and on interviews and a questionnaire. The use of general statistics was limited. The EC's CEQ were addressed only because they were obligatory, with very few useful results for the evaluation process.

Good statistical information, both on the measure's implementation and on the sectors' global evolution is crucial for a meaningful evaluation exercise. It is also the only way to comply, at least to some extent, with the CEQ.

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# Two Approaches to Evaluation – The Case of the Processing and Marketing Grant in England

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## 1 Introduction

Evaluation of the England Processing and Marketing Grant (PMG) was undertaken in 2003 in response to two contracts, one let by Defra for this scheme alone (Elliott et al, 2003) and one as part of the larger Mid-Term Evaluation of the England Rural Development Programme (ADAS and SQW, 2003), funded by Defra<sup>1</sup> and the European Commission and according to guidelines set out by the Commission. These two exercises were carried out at almost the same time and illustrate different approaches to evaluation. The evaluators also raise questions about the how influential their work has been.

## 2 The Defra evaluation

The Defra evaluation was commissioned late in 2002 with the following research objectives:

- a) Is there a valid economic rationale for public sector support for the processing and marketing of agricultural products?  
Is there evidence of any market failure(s) that require government intervention? If so, does PMG address the market failure(s)?
- b) How effective has PMG been in stimulating proposals for marketing initiatives?  
Has the PMG raised the level of interest in processing and marketing by primary producers? Has this interest been converted into sound project proposals?
- c) What have been the impacts or potential impacts of projects funded under the PMG Scheme?  
Have the projects raised the value added of agricultural products or increased their competitiveness in the marketplace, or are they likely to in the future?

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<sup>1</sup> Department for Environment, Food and Rural Affairs, London, PB11558

- d) Have there been any wider impacts of the PMG Scheme?  
Have new investments funded through the PMG Scheme contributed to the rural economy and employment?
- e) How cost-effective has the PMG Scheme been in delivering its objectives?  
Has the PMG Scheme had additional effects on processing and marketing investments, or is there significant deadweight? Have there been any displacement effects?
- f) Recommendations  
Based on a-e, what improvements could be made to similar future schemes?

### ***Comments on the Defra terms of reference***

A concern to enhance the evaluation evidence available for the mid-term evaluation (MTE) of the Rural Development Programme may have played some part in prompting Defra to commission the evaluation, although the project specification against which shortlisted applicants were invited to tender did not mention the MTE or its associated evaluation guidelines.

The research objectives are similar to those issued by Defra for the many evaluations listed in its evaluations booklets in the period 2000 to 2005. They leave a great deal of choice to the bidders for the methods they propose and the information they plan to collect. One cannot say that the research objectives perfectly typify a UK approach to evaluation although they are probably fairly representative of evaluations commissioned by Whitehall, influenced by the Treasury Greenbook, Appraisal and Evaluation in Central Government (H M Treasury, 2003).

## **3 The mid-term evaluation terms of reference**

In contrast the mid-term evaluation (MTE) of the England Rural Development Programme (ERDP) required the evaluators to follow a carefully structured and highly detailed set of evaluative questions, criteria and indicators. The guidelines in respect to just Chapter VII are summarised in Table 1.

**Table 1:** The set of common evaluation questions with criteria and indicators: Chapter VII, Improving processing and marketing of agricultural products

Question	Criteria	Indicators
To what extent have the supported investments helped to increase the competitiveness of agricultural products through improved and rationalised processing and marketing of agricultural products?	3	3
To what extent have the supported investments helped to increase the added value and competitiveness of agricultural products by improving their quality?	3	8
To what extent have the supported investments improved the situation of the basic agricultural production sector?	2	4
To what extent have the supported investments improved health and welfare?	3	6
To what extent have the supported investments protected the environment?	2	6
<b>Total</b>	<b>13</b>	<b>27</b>

Source: European Commission, Directorate General for Agriculture (2000).

Defra had commissioned a baseline study for the evaluation of ERDP. This study examined the relevance of the Commission's questions and indicators to the ERDP and listed possible data sources. In some cases questions and indicators were concluded to not be applicable to the MTE of ERDP. This document (Hill et al, 2002) was an important reference document throughout the MTE. It also demonstrates that Defra had given considerable thought to the evaluation requirements of the ERDP.

However the terms of reference for the MTE in England had typical UK evaluation questions added to the questions in the Commission's evaluation guidelines, as follows:

- Are there valid economic rationales for each scheme?
- To what extent have individual scheme objectives been met?
- Are the separate schemes coherent with each other?
- Are the scheme outputs sustainable?
- How efficiently have scheme outputs been achieved?
- Have there been any positive or negative side effects?
- How appropriate and transparent are the procedures and criteria for project selection?
- What groups have schemes targeted and how does this fit with the objectives set out in the programme document? Should changes be made to better target certain groups?

- What adjustments are necessary at the mid-term stage and beyond in order to improve the effectiveness and efficiency of the schemes?

The Commission's guidelines with their carefully defined questions, criteria and indicators were largely descriptive and (if widely followed) give a good Pan-European view of the outputs of the RDP. However, without the addition of the UK style evaluative questions, they would not have asked fundamental questions about the rationale and impact of the scheme.

#### **4 EU and Defra terms of reference (TORs) contrasted**

One might contrast the two terms of reference as follows:

- Defra: Questions concentrate on the scheme justification, should it continue, and if so, how should it be modified?
- Commission Guidelines concentrate on examining the extent to which the programme contributes to EU and national objectives. While more thorough on programme outputs and impacts, they are not much concerned with a justification of the schemes.

The lack of questions to examine the justification of the schemes in the Commission's guidelines raise the question is this because they are based on an EU regulation and are therefore assumed to have a valid rationale? Hence is there no need to test or challenge? Is this a satisfactory assumption?

#### ***Commissioning of the evaluations – A bidder's perspective***

During the autumn of 2002 the two tenders took place independently, with the Defra PMG evaluation being awarded about one month ahead of the ERDP MTE.

The ADAS bids for the two contracts were prepared by different individuals in the company, working on different timetables (Brian Angell and John Elliott). There was liaison and the project manager for the Defra PMG evaluation, John Elliott (who took the lead in writing the ADAS bid) was put in charge of the MTE Evaluation of PMG, although this formed just part of a much larger job in which another firm, SQW was an important partner. The Defra-commissioned evaluation of the PMG was a joint exercise between ADAS and the University of Reading where Abigail Tiffin was the main contributor.

Only when the results of the tendering became known did ADAS discover that the two partnerships it was leading had been selected to carry out both evaluations. As events transpired, the Study Director of the PMG Evaluation, Mark Temple was also the overall project manager of MTE. Hence two individuals found themselves working on two

evaluations of a single scheme using the required evaluative approaches of two different commissioning organisations.

Following the news that the ADAS led partnerships had been successful for both tenders; ADAS was asked to reduce its bid for the ERDP MTE in recognition of the fact that it was evaluating PMG in both contracts. In practice this meant that the PMG surveys built into the MTE bid were dropped.

As the Defra PMG evaluation was assigned slightly earlier than the ERDP MTE, the methodology for the former drove the data collection on PMG, and the Commission questions for MTE had to be answered as well as possible without new primary data collection for that purpose.

This illustrates the point that the commissioning process for evaluations can have a major impact on the methods used. If the MTE had been let before the PMG evaluation, the methodology would have been driven more by the Commission's guidelines and suite of questions, criteria and indicators.

## **5 About the processing and marketing grant scheme**

The Processing and Marketing Grant (PMG) is a capital grant scheme within the umbrella of the England Rural Development Programme 2000 – 2006. It is aimed at raising the value added of agricultural products and increasing their competitiveness in the market place through improved processing and marketing. Projects might, for example, lead to the development of new or innovative products, raise the quality of existing products or improve or rationalise processing facilities. PMG is open to individuals, groups of primary producers or SMEs (small and medium sized enterprises) involved in agricultural production, processing and marketing. Grants are available towards the cost of new buildings, the refurbishment of old ones and the purchase of new equipment. It was envisaged that the PMG would encourage and promote a wide range of new investments contributing to the rural economy and employment, including projects in the area of regional and specialty foods.

Some £44 million of funds from the Government and the EU were available for PMG over the period 2001 to 2006, rising from £4 million in 2001 to £8 million in 2002 and beyond. PMG grants were available for investments over £70,000 and could provide up to 30 % of eligible costs. Grant holders were expected to contribute at least 45 % of the total cost of projects from their own resources. Although projects can be any size, the maximum grant available is £1.2 million.

PMG was run on a regional basis and, among other criteria, applications were assessed against priorities identified in the regional chapters of the ERDP. In this context regional refers to the nine regions of England (for example, South West, South East, etc.). PMG was competitive in that applications were assessed against one another with the best applications securing funding, within the available budget.

At the time of the evaluation the most recent information on the distribution of the funding by sector was for 2002 (Tables 2 and 3).

**Table 2:** Approved PMG projects in 2002 by sector

Main sector	Number of applications approved	Total eligible cost ('000 EUR)	% of total
Meat	13	9,207	15%
Milk and dairy products	9	13,994	24%
Eggs and poultry			0%
Other livestock products			0%
Cereals	2	3,609	6%
Sugar			0%
Oilseeds	1	203	0%
Protein seeds			0%
Wines and alcohols	1	141	0%
Fruit and vegetables	15	19,955	34%
Flowers and plants	4	2,572	4%
Seeds			0%
Potato	4	5,950	10%
Other crop products	3	1,934	3%
Polyvalent products			0%
Other products	2	1,898	3%
<b>Total</b>	<b>54</b>	<b>59,463</b>	<b>100%</b>

Source: Defra 2002 ERDP Annual Report.

**Table 3:** Scale and regional distribution of PMG awards (Oct-00 Mar-03)

Region	No. of PMG awards	Total Project Spend (£)	Av. PMG Spend (£)	Av. PMG Award (%)
North East	2	1,434,300	717,150	30%
North West	6	2,566,590	427,765	30%
Yorkshire & Humber	6	2,686,516	447,753	29%
East of England	11	10,402,874	945,716	30%
East Midlands	18	20,998,117	1,166,562	29%
West Midlands	8	5,679,823	709,978	30%
South East	16	7,986,694	499,168	33%
South West	15	6,345,866	423,058	30%
Not allocated	3	1,697,430	565,810	30%
<b>Total</b>	<b>85</b>	<b>59,798,211</b>	<b>703,508</b>	<b>30%</b>

Source: Defra Probis database.

## 6 Methodology

The main basis for the evaluations were:

### Interviews with Defra staff

- The interviews with those responsible for developing the policy and implementing the scheme were designed to understand the evolution of the scheme, the setting of objectives and the choice of an appropriate legal basis for it. In addition, much important information about the operation of its processes was obtained.
- Interviews were held with the key staff from Defra divisions in London who had been in post while the scheme was developed. In addition, interviews were held with staff from the Schemes Unit (for the three Project Based Schemes of the ERDP), Rural Development Service (RDS) staff from the East Midlands and South East regions, from which case studies were selected.

### Review of the scheme rules and administration

- The evaluation team was provided with scheme literature and was given access to individual case files relating to the case studies. Together with interviews with RDS unit managers at Nottingham and Reading, this gave a comprehensive insight into the scheme rules and administration process.

### Literature review

- A review of the literature relating to public support for processing and marketing provides the basis for identifying an economic rationale for the PMG. This also provided the context for the surveys which might provide supporting evidence for any rationale.

### Scheme monitoring data

- Monitoring data collected by Defra in running the scheme was an important source of information on the types and locations of investments and the forecast outputs.

### Survey of applicants

- Two separate self-completion questionnaires were designed. The successful applicants' questionnaire was sent to all 90 successful PMG applicants and the unsuccessful applicants' questionnaire sent to the 30 unsuccessful applicants.

### A survey of eligible non-applicants

- A telephone survey was designed to obtain the views of businesses that were eligible to apply but did not. Some of these businesses had expressed an interest but had dropped out of the application process. A total of 26 interviews were achieved amongst this group.
- The sample comprised a number of applicants who had withdrawn their application, a number of food processing businesses known to ADAS and a random selection of small food processors taken from The Grocer directory (2003). For the latter, the criterion was a turnover of between £5m and £10m and less than 20 employees. Interviews were based on a short, semi-structured questionnaire.

### ERDP survey

- A sample of farm businesses was surveyed as part of the national ERDP survey (2,725 farms) to seek views on the package of schemes and on individual elements of schemes in which they participated. The sample was selected at random from the Defra database of all ERDP beneficiaries.
- The questionnaire was aimed at measuring the awareness of the ERDP schemes among the wider farming population. Two thirds of the sample were unaware of ERDP – of the third who were aware, only 9 % (3 % of the total sample) thought they had suitable projects for PMG.

### Case studies of successful and unsuccessful applicants

- Seven PMG applications would be selected as case studies – four successful and three unsuccessful – in order to give an insight into the application and approval process and to consider the outcome of the projects, with and without PMG grant. At the outset, it was proposed and agreed with Defra that case studies should be selected from two English regions in order to allow some comparison between regions and between projects.
- In the course of selecting case studies, there would be an opportunity to discuss the practicalities of scheme administration and technical issues with the regional RDS teams. They were asked to comment on all aspects of the scheme including literature and promotion, decision-taking and guidance and requirement for reporting and monitoring.

### Call for written submissions to representative organisations

- A number of organisations were asked to comment on the key terms of reference from their own perspective and offer suggestions for improvements. Consultees were drawn from a list of national organisations (agreed by Defra) and the RDS and regional food groups for the 8 English regions.

## **7 Main conclusions and recommendations**

Although several arguments for market failure were examined the evidence of market failure was limited.

The scheme was not seen as being effective in terms of raising the price of primary products.

The main conclusion was that Defra should be trying to encourage small food firms to innovate in terms of processes, products and markets.

ADAS managed to provide answers to 18 out of 27 indicators requested in the MTE guidelines. Of the 9 indicators which we were unable to answer, four had been ruled as not applicable by the baseline study.

## **8 Evaluator's comments on the influence of the evaluations**

Once an evaluation is completed, evaluators move on to the next job. This is particularly true in the commercial consultancy sector. Hence evaluators rarely have the luxury of time to examine how the results of an evaluation are put to work.

In the UK, Defra has a mechanism for ensuring that lessons are learnt from evaluations. The management board receives a one-page summary of evaluations and the policy unit responsible for the policy area, scheme or programme under evaluation has to produce an action plan saying which recommendations it will implement. As an evaluator one is often largely unaware of this process, although occasional signs occur, such as requests from public servants for information.

One can argue that this lack of involvement following evaluations is a proper distance if evaluators are to remain independent, rather than themselves become involved in the implementation of programmes. This evaluator feels that given the passing and limited nature of his involvement with programmes during evaluations, and the much greater and long standing involvement of those public servants involved in running the policies, the responsibility for adopting and implementing the recommendation must rest with the latter group.

In the case of the MTE, the author was invited to a technical meeting of the STAR Committee on the mid-term evaluation of the rural development programmes in Brussels on 23 March 2004. The purpose of the meeting was to examine the experience of Member States (MS) on the evaluation procedure and usefulness of the evaluation guidelines and to present main conclusions and recommendations. There was a five-minute slot for one evaluator from each MS to present his/her experiences. Unfortunately there was little opportunity to meet other evaluators or discuss experiences with them.

A meta-evaluation of the Rural Development Plans (RDP) was carried out by Agra-CEAS Consulting which reported in November 2005 (Agra-CEAS Consulting, 2005). They clearly did look at these reports and distilled what Europe-wide conclusions they could. The main recommendation in relation to Chapter VII, processing and marketing, was that links with other measures in the RDP, notably those promoting organic production, should be further encouraged in order to promote synergy along the supply chain.

The main methodological recommendations they made were for a smaller set of core evaluative questions, better baselines and more flexibility over the use of indicators.

Another document where one might look for signs of influence of the evaluations is the consultation document for the 2007 – 2013 RDP (Defra, 2006). This references the MTE. It also mentions the importance of encouraging the development of new markets and new value added products such as renewable energy products, non-food crops and high value

food products, including regional quality products. So the results of the evaluation do seem to have fed through to current planning for the next RDP.

Perhaps the most valuable effect of evaluations is to add to public accountability. The Synthesis of the RDP MTE's is an example of information pulled together from the pre-accession 15 member states of the EU. This would otherwise be largely unavailable (without superhuman effort) in the public domain. While members of the general public are unlikely to be interested, through the efforts of scholars, academics and professionals it must add to the debate about what action for rural development is appropriate.

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# **Does Complete Field Research Build a Good Basis to Evaluating the Measure?**

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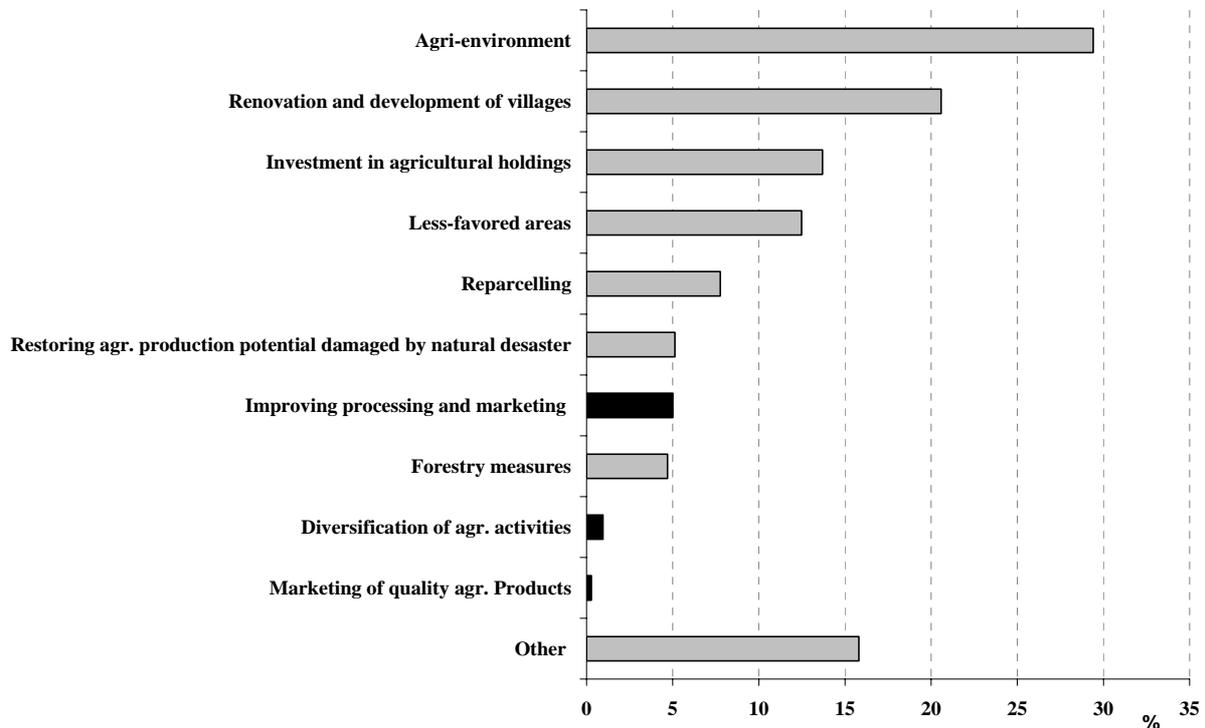
Germany

## **1 Introduction**

Evaluation of Rural Development Policy is an interesting, but also a difficult task. The Institute for Market Analysis and Agricultural Trade Policy (MA) within the Federal Agricultural Research Centre (FAL) was contracted to carry out the Mid-Term-Evaluation (MTE), the Update of MTE and Ex-Post-Evaluation of the measure g 'Improving Processing and Marketing of Agricultural Products' within Council Regulations (CR) 1257/1999 and 1260/1999. This Evaluation is in progress for each German federal state. In last programming period 1994-1999 evaluation for this kind of measure was also carried out by MA. The main instrument for this evaluation were case studies beside interviews, literature review, monitoring etc (Wendt et al., 2001). One experience of evaluation was that there was a lack of information about supported projects. Therefore all involved actors (ministry, approval authority and evaluators) agreed to enforce a complete field research over all support projects within this measure for the upcoming programming period (2000-2006). This paper deals with the experiences and results the evaluators have received by carrying out such a complete field research. The question to be answered is: Does complete field research build a good basis to evaluate the measure?

## **2 Basic conditions**

There are some basic conditions which have to be considered when carrying out evaluation of EU programmes co financed by national states as well as federal states. Basic conditions mean circumstances which can not be influenced but need to be considered by evaluators (Weiss, 1998) and consequently control to some extent the evaluation. These basic conditions can be divided into two fields: the specific situation in Germany due to the federal structure of this country and the Terms-of-Reference for evaluation given by EU-Commission.

**Figure 1:** Importance of measures in context of Reg. (EC) 1257/1999 in Germany

Source: Osterburg et al., 2002.

The measure ‘Improving Processing and Marketing Agricultural Products’ isn’t the most important one within the programme, only 5 % of the public expenditures are covered by this activity. In absolute terms that is approximately 780 million Euro. Thus, it is worthwhile to evaluate the measure. Germany’s federal structure causes serious problems if the evaluator has to analyse on a regional as well as national basis. Federal states execute their own programmes and measures, and the measures are similar, but only similar. Therefore the differences regarding application conditions, implementation procedures (like administrative rules, official advices), etc., as well as the specific objectives each level connected with the measure have to be taken into account. In particular the accumulation of interests (EU, National, Regional interests) causes an increasing number of objectives and probably conflicting objectives<sup>1</sup>. As a result, evaluation gets more and more complex. If one were to assess a measure close to the list of objectives and with limited resources, the evaluation will be less feasible.

The Terms-of-Reference for evaluation given by EU-Commission predetermine evaluation to a goal and impact oriented evaluation. The way of evaluation is predetermined by carefully structured and detailed evaluation questions (Chapter specific as well as cross

<sup>1</sup> For discussion of the processes regarding EU multi-level governance see for instance (Axt, 2000).

cutting questions), criteria and indicators (European Commission Directorate General for Agriculture, 2000). Additionally a program view of the evaluation (Stufflebeam, 2000) arises from the logic of intervention (need-input-output-result-impact). In sum in the case of EU Rural Development Program (RDP) this leads to an investigation of multiple goals and questions through various criteria and indicators. As mentioned before, again, to some extent it hinders the evaluator to look at the 'roots of public intervention' (needs, necessity) as well as to look at other ways to diminish supposed market failures or to promote wanted developments of the government (perhaps the general public). Fundamental questions about the economic rationale and the necessity of public support do not play a prominent role.

Due to the extensive and target-oriented requirements of EU Commission regarding evaluation, a good data base is necessary to find and analyse these indicators and criteria, but official statistics of processing and marketing agricultural products are very poor. Therefore complete field research of supported firms has been carried out by evaluators of this measure. The data collected should be realistic, representative, measurable, homogenous and goal oriented. Realistic data means data, which are in fact connected with the supported enterprise and should be connected with the objectives of the measure and program. Representativeness will be difficult to achieve and to check. There is no realistic possibility to get similar information from enterprises which do not receive support within this measure. Thus, a comparison 'with/without' isn't possible. Consequently an analysis of net effects will be difficult.

The collected data are one of the sources evaluators use to evaluate measure 'Improving Processing and Marketing of Agricultural Products.' Other sources, as mentioned in the introduction, are interviews of with ministry staff, literature reviews, monitoring data and market surveys (Wendt et al., 2006).

### **3 Implementation of complete field research**

As mentioned in the introduction, all relevant participants of the support scheme (ministry, approval authority and evaluators) back the approach of complete field research of supported firms within measure g of CR 1257/1999 and CR 1260/1999. In order to be successful a high level of cooperation is necessary. Therefore the questionnaire should be as simple as possible for stress-free participation by beneficiaries and the collected data should be suitable for administration use. Due to the fact that the questionnaire is a part of a request for a subsidy and that the beneficiary is obliged to fill it out, the evaluators expect a high rate of return. The approval authority is the intermediary between beneficiary and evaluators. They send the questionnaire to the beneficiary and after receiving the request for subsidy they check them before they were send to evaluators.

The questionnaire is based on the commonly used EXCEL™ software, because almost all enterprises use in one way or another. The data were collected on the plant-level, not on company-level, in order to get information directly linked to the investment. A weakness of this decision is that one can not get information about reactions on company-level due to the investment (e.g., between different plants of the company).

In the view of the evaluators, an advantageous procedure for a survey is a three data survey run. That means that data should be collected one year before support, one year after and three years after. During negotiations with the different stakeholders representatives of ministries as well as of approval authorities claimed that evaluation should not bind too many resources, and furthermore results of the third run three years after investment would be too late to use for programming. As a result the evaluators carried out two data survey runs:

- First during the application period to get information about the initial situation one year before application and about effects intended by the investment
- Second after realisation to get information about results achieved one business year after completion of the investment

Thus the data base contains three values for each variable: for initial situation (t0), for intended effects (t1) and for achieved results (t2).

In the following section, the structure and content of the chapter specific evaluation questions, and a way to transform these requirements into the questionnaire will be presented by an example. The third Chapter Specific Evaluation Question (CEQ) for Chapter VII deals with the ‘Improvement of the situation of the basic agricultural production sector’.

Criteria proposed by the EU Commission are:

- Demand for and price of basic agricultural products (assured or improved)
- Co-operation developed between the farmers and the processing/marketing stages

Indicators proposed by the EU Commission are:

- Trend (in terms of quantity and price) in purchases of raw materials by assisted production/marketing lines
- Share (within area of programme) of gross sales of basic agricultural products that are sold to outlets safeguarded or created thanks to the assistance (%)

The proposed indicators were translated to workable indicators in the questionnaire as follows:

- Quantity and value of five main agricultural raw products
- Share of raw products under contract
  - Share of organically grown products
  - Supply by producer group / producers' organisation
  - Running time of contracts
  - Shares of raw products with fixed prices, market prices, price markup
  - Quality markup of producer price (in %) yes / no
  - Price gap to the average market prices (in %)

In the same manner indicators for other Chapter Specific Evaluation Questions and Cross-Cutting Questions were translated into the questionnaire. Finally one data set for one case contains about 750 variables. For Update of MTE the data base consisted of 630 projects. Overall 950 projects are reported to evaluators, so the evaluators have information for around about 2/3 of the projects. Data for period t2 are also available from 212 finished Projects.

## **4 Discussion**

In the next chapter there will be a discussion about this approach in four steps. First an exemplary answer for two indicators of one Common Evaluation Question will be discussed. After that occurring problems by implementing complete field research will be presented and discussed. Then we present some limitation and open questions of this approach and finally we illustrate our key experiences and recommendation for this approach.

### **4.1 Exemplary answer**

The following example shows that it is in fact possible to answer the CEQ, at least partially. One of the proposed indicators for producer benefit (CEQ 3 for Chapter VII) is the trend (in terms of quantity and price) in purchases of raw materials by assisted production/marketing lines. In the questionnaire, data were collected for value and quantity of purchased agricultural raw material. Table 1 shows the total value of purchased agricultural raw material by supported firms over all sectors for t0, t1 and t2.

**Table 1:** Value of purchased agricultural raw material by supported firms over all sectors for t0, t1 and t2 (in million Euro)

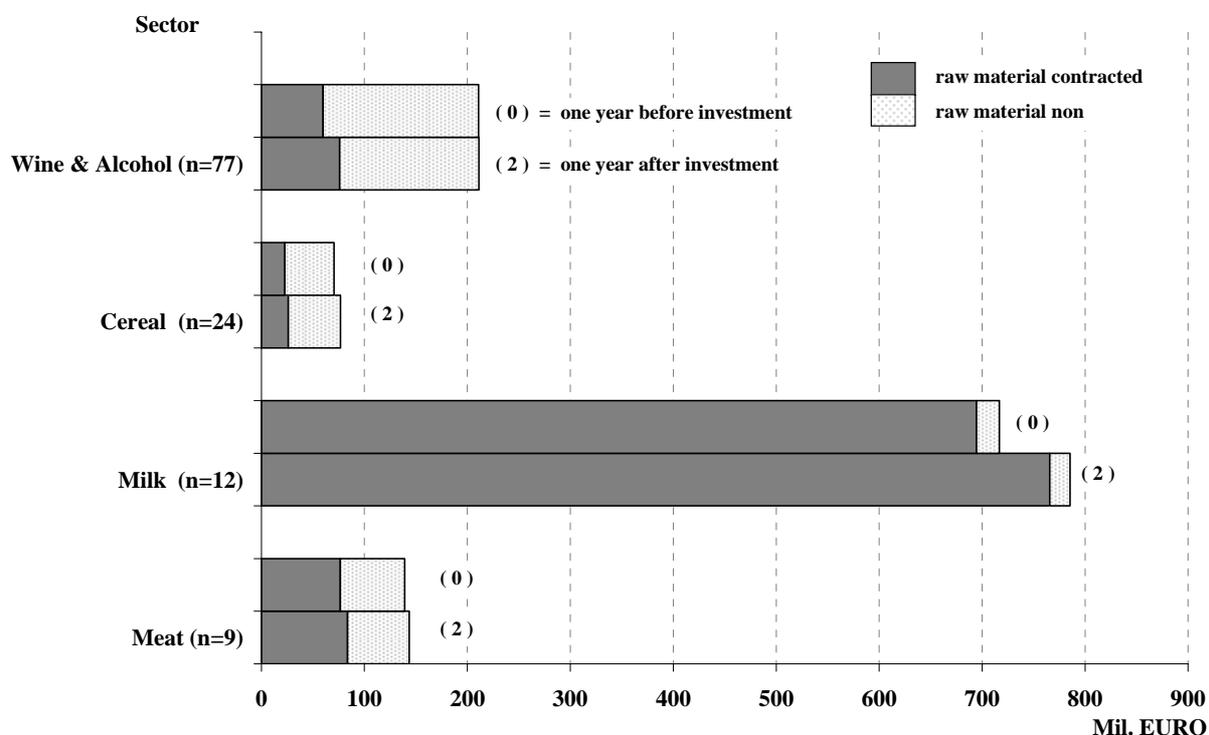
	t0	t1	%	t2	%
finished projects n = 214	254	293	15	288	13

Source: Own calculation.

It can be shown that the supported enterprises increase their purchases of agricultural raw materials by 13 % (from t0 to t2) albeit not in the promised amount (15 %) (from t0 to t1). In evaluation practise the analysis is more detailed by sector, federal states, etc. By analysing we concentrate only on the value of purchased agricultural raw material, we do not consider prices and quantities because a comparison of prices between different sectors does not make sense. It is even difficult to compare and analyse prices within a sector. Changes and differences in prices may occur due to the supported investment but are also present due to market trends and specific market situations. Even to measure these effects approximately is quite difficult because it has to be done on a regional basis. Within an evaluation there are not enough resources for such work. Also an aggregation of quantities was not possible due to different units (Boxes with vegetables, kg milk, bundle of flowers....). Therefore only the total value of purchased agricultural raw material can be added up and can be considered for answering this part of the CEQ.

Another indicator for CEQ three is the share of contract based delivery of raw material. Based on the data of finished projects in four sectors (wine, cereals, milk and meat) Figure 2 shows a comparison between agricultural raw materials delivered before and after investment, as well as the share of raw materials delivered on a contract basis.

There are strong differences between sectors; milk with a traditionally high degree of contract-based relationship between producer and processor. Other sectors have significantly lower levels. Obviously it is necessary to analyse sectors separately. There are only slight positive changes in the shares of raw materials contracted due to the supported investment, thus, also slight positive changes of the producer benefit based on this indicator.

**Figure 2:** Share of contract based delivery of raw material

Source: own calculation.

In these two examples we have shown that some indicators, like the value of purchased agricultural raw materials and the share of contract based delivery of raw materials, can be used to answer the CEQ. Other indicators like the quantity of purchased agricultural raw material and the price gap between price paid by supported firms and the average market prices (in %) are difficult indicators, that means that they are either not analysable or not valid, i.e., due to different definition of market prices, products or units (Nölle et al., 2005).

## 4.2 Problems of implementation

Basic conditions of the evaluation led to different problems:

We tried to recognize the demanding EU data requirements due to the questions, criteria and indicators as far as possible. In consequence, the questionnaire was neither simple nor short. This caused some problems with quality of data entered and with questionnaires that were not completely filled out. Ambitious questionnaires lower the willingness to fill them out correctly and completely. Moreover the probability of misunderstandings and definition problems increases if one wants to get detailed information.

The problems produce intensive consulting needs among all parties. Several workshops and adjustments to the questionnaire were implemented to enhance the quality of data. Furthermore we had to spend much more time checking and correcting data entry forms than expected.

Last but not least we had to make a decision between `Learning by doing` versus `consistency of data collected`, that means, that on the one hand we adjusted the questionnaire in order to improve data quality and on the other hand we had to stay on the selected path of data collection because otherwise we would, of course, lose data consistency.

Definition problems occurred in the area of price information as just mentioned. On the regional level, and on sometimes quite specific markets, price information is poor so that an assessment of prices recorded in the questionnaire were not possible.

Another example is information regarding capacity. The definition was not clear enough. Some firms filled in their total capacity for processing agricultural raw material, other firms filled in only the capacity of the production line affected by support. Difficulties emerge from the fact that some activities within a plant are seasonal, that means that facilities run only weeks or few months, etc. In consequence capacities were not comparable in a sensible manner. Therefore we removed this indicator from our analysis.

As a result of negotiations with ministries and approval authorities we compiled one single, standardised data entry form. But if one would like to get detailed information one form cannot encompass all relevant information, because projects and plants are very different.

### **4.3 Limitations of approach**

Beside the problems of implementation there are some general limitations of this approach. One huge problem is the time lag between investment and impact. We collect data by supported firms before, and one business year after, investment, but it can be assumed that the total effect of support occurs later.

A problem also emerges concerning the timing of evaluation and programming, because the results received by this approach come too late to influence the programming for upcoming programming period. But this is a fundamental problem between two conflicting interests: In order to be stakeholder-oriented, evaluation should offer politicians and administration valuable data quite early so that they can use them for programming the next period. Otherwise evaluators need more time and resources to

analyse data in a sound scientific way in order to produce results which are reliable and verifiable.

One fundamental issue is that only gross effects can be assessed. Due to a lack of information about unsupported firms we can not count net effects which would be desirable for evaluation. Until now we have not found an evaluation method for this kind of measure and sector where detailed net effects were estimated<sup>2</sup>. This fact leads also to the limitation that no statements can be drawn across the whole sector, only about supported plants/enterprises. Anyway it is even hard to estimate gross effects of support because in our data base there are some follow-up projects. It is therefore difficult to assign a measurable effect to the first or following investment. There is also not enough information about other support schemes with the result that one probably observes changes which were not activated by the analysed support scheme. Since the questionnaire only covers information about the plant or company, external effects and synergies are not measurable by this approach, either.

The question of windfall gains is one of the important issues for evaluation, but complete field research can not deliver adequate information to assess windfall gains. Another unsolved question is on which level should the data be collected. In this complete field research, data was collected on the plant level. For some reasons it would be preferable to collect data on the company level because this would probably reveal displacement inside a company. By collecting on the plant level we have, for instance, huge gross effects for one location and we neglect the displacement at another location of this company.

#### **4.4 Experiences and recommendation**

By implementation and execution of a complete field research, the involved evaluators gained a lot of experiences which lead to the five main recommendations listed below. As one can see, it is a confirmation of common recommendations (Oldsman, E. et al., 2004; Wendt H. et al., 2004).

- Start before the support scheme begins
- Assure encouragement of all actors
- Facilitate input procedures as far as possible with training and workshops
- Do not collect too much data
- Use clear indicators

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<sup>2</sup> Matching methods are limited on single criteria and also need information about unsupported plants or companies.

It turned out that it was very difficult to start such a survey while the programme is already running. The evaluation also started late due to late notification by the EU-Commission on the current programme. Therefore at the beginning of data collection the questionnaire did not perform well and caused a lot of problems. And it was later also a problem to get filled-out questionnaires from projects which invested at the beginning of the programming period when the questionnaire was not available. Furthermore, it is absolutely necessary to assure encouragement of all actors. Many supported firms showed no motivation to cooperate, the questionnaire was just another stumbling block on the way to getting a subsidy. Hence it will be an advantage when the approval authority benefits by using questionnaire data, because the approval authority will probably push the applicant to provide better cooperation. It would also be an advantage if the data collecting procedure were as simple as possible, and the approval authority were to become familiar with the questionnaire through workshops and continuing training as soon as possible. Finally a concentration on a few clear indicators in the questionnaire is better in many aspects than a long and complicated form. The definition of the fields in the questionnaire should be clear and there should be no space for interpretation.

## 5 Conclusion

The initial question for this paper was: Does complete field research build a good basis to evaluate a measure? Some experiences and results by implementing and executing such an approach were presented. As a conclusion it can be said that it is possible to get sufficient information to answer EU evaluation questions (Chapter specific as well as cross cutting questions) despite all of the problems and limitations. Thus, this approach is adequate for an evaluation that has to analyse a programme or a measure in detail. Complete field research provides a lot of useful information to evaluators. The data base can reflect the heterogeneity of supported firms. This knowledge prevents misinterpretations by evaluators. Therefore the recommendation of the evaluators is to continue with this approach. In addition this approach will achieve better performance if it were to be used in more than one programming period.

Another important aspect is that the administration can benefit from complete field research, too. It can utilize some of the collected data. It can even integrate an application form into the evaluation questionnaire. Also, a questionnaire supports a close relationship between evaluators and administration as well as ministries usually due to repeated data transfer often linked with data clarification processes. Both can gain from this connection: Evaluators get better information, in particular about administrative procedures and decision making, and the administration receives feedback about their work from a third party. Thus, evaluation also fulfils formative aspects.

Furthermore it seems to be possible to develop a benchmarking scheme to make RDP measures more effective, transparent and (perhaps) comparable. This benchmarking

scheme is not part of this paper but it is noted that an approval authority can probably use this spill-over for project selection procedures.

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- In addition you can find several evaluation reports of single Federal States as well as of Germany on the following webpage:  
[http://www.fal.de/cln\\_044/nn\\_791716/DE/institute/MA/publikationen/downloads/download\\_\\_evaluation\\_\\_de.html](http://www.fal.de/cln_044/nn_791716/DE/institute/MA/publikationen/downloads/download__evaluation__de.html); reports are only in a German version, citation from June 2006



**Closure of the European Evaluation Workshop**



# Summary and Final Discussion

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Institute of Market Analysis and Agricultural Trade Policy  
Federal Agricultural Research Centre (FAL)  
Germany

## Part I: Summary of the working groups

### 1 Introduction

This summary tries to combine the results of both working groups. Since the results do not always correspond, the working group “support of farm investments” is to be identified by [I] and the working group “processing & marketing” by [II]. Where these signs are absent, both groups agree on the respective statement. The discussions were influenced by differing opinions on the basic purpose of the evaluations. While the client oriented evaluators tend to make the reports “Brussels-proof,” the more scientifically-oriented evaluators seek to give well-based answers to relevant questions. The attitude of the latter group poses serious methodical problems.

### 2 Evaluation methodology

The methodologies used are not very advanced. The evaluations are mainly based on descriptive statistics with rather simple approaches. Certainly also due to data shortage, there are almost no causal analyses. Modelling has not been used either. Therefore net-effects could not even be analysed roughly. The highly challenging tasks like identifying rollover-, deadweight-, displacement-, synergy- and multiplier-effects could only be accomplished, if at all, by using rather sophisticated econometric models. This especially holds true for the assessment of the sectoral impact which would have to take into account non-supported farms and general aspects of structural development. The Common Evaluation Questions (CEQs) do not emphasize these aspects either. Most evaluations adhered strictly to the CEQs, therefore formally accomplishing their task.

As basic approaches, before-after-analysis [I][II] as well as the comparison with a reference group (with-without) [I] were usually conducted on a descriptive basis. Sometimes a t-Test was used for the comparison of two groups with respect to single indicators. This is especially problematic since investment support has been offered for

decades and almost every farm absorbed this kind of assistance in the past. These problems could only be accounted for by some kind of econometric differentiation between groups of farms.

Moreover due to the time lag of effects and impacts of supported investments, mid- and long-term analyses are necessary to identify net-effects. They, too, would cause some severe methodical problems as, for example, intervening factors like following investments, etc., blur the effects of the support. The strict adherence of the commission to the current programming-period, though, primarily hampers such an approach.

### 3 Provision and use of data

The following Table 1 shows the sources and utilisation of the database in the course of previous evaluations.

**Table 1:** Provision and use of data

Source	Use <sup>1</sup>	Explanatory notes
Monitoring	++ [I][II]	Basic information on projects
FADN + mandatory annual accounts	+ [I]	after'-situation, valuable, time lag, combination requires huge effort
Business plans	+ [I]	Information on baseline
Additional surveys / questionnaire for beneficiaries	+++ [I][II]	Essential for processing & marketing, costly
Interviews of experts	++ [I][II]	Accompanying, on implementation process and organisational aspects
Expert workshops	+ [I]	Farm consultants (e.g., DE)
Case studies	+ [I][II]	Best practice, no representativeness

<sup>1</sup> (+) = partly used, (++) = often used, (+++) = mainly used.

[I] = Farm investment support, [II] = Processing and marketing.

It can generally be stated that ascertaining more valuable data leads to rising costs of data provision. Even a broad data-basis can create severe problems if it is not collected and stored with care. If there are administrative deficits or ignorance, parts of available data can perhaps not be used later (e.g., due to absence of identification number). Sometimes costs tends to be prohibitive with respect to data collection, especially when the support measure is of low financial significance. Therefore most evaluations are based on quite small samples and on case studies.

The reliability of data/information delivered by beneficiaries via surveys, which were often applied, tends to be biased and therefore has to be used with caution. Crucial information for evaluation is not accessible on some relevant topics even through primary surveys (e.g., household income [I], non-farm-business developments [I], development in other branches of the enterprise [II]).

Clearly improvements could be reached through better support by ministries and administration. In some countries there is no obligation for assisted enterprises to deliver data or other information for evaluation purposes. This has been simply forgotten to be included in the application forms. Furthermore the definition of a few clear intervention objectives and of less quantifiable indicators would reduce the necessary database.

#### **4 Evaluation results**

A positive effect of the support has not been proven by any of the reports. On the other hand, no evaluation was able to verify the opposite, i.e., to show that the support has no effect. Therefore clear recommendations could hardly be given; they usually concentrate on administrative aspects and aspects of implementation. It was sometimes expressed that stating the evaluator's opinion is seen to be better than to give no recommendation at all [II].

The main problem is, that net-effects could not be analysed, mainly due to methodical problems and data shortage. Up to now, only selected gross-effects could be identified. The most positive gross-effects have been found with respect to the improvement of working conditions und animal welfare [I]. Most problematic is that in many cases gross-effects are communicated as if they were net-effects. There is still little understanding of the fact that by taking the right referential situation into consideration a positive gross-effect could well turn into a negative net-effect.

It is generally agreed upon that many problems in assessing the effects of the measures result from the fact that most Rural Development Programmes lack clear objectives and a sound intervention logic (Margarian, p. 32-42). However, the definition of clear objectives

as well as of indicators to measure them at the start of the programming period are seen as essential for implementing a valuable monitoring system. The following evaluations should then be concentrated on few core questions with a greater flexibility regarding the use of indicators.

## **5 Organisation of the evaluation**

Regarding programmes and measures, there are large differences between the member states. This can be seen, for example by the number of programmes and the type of programmes (e.g., ROP, RDP). Therefore a comparison of evaluation and its organisation is difficult. It is generally stated, though, that the budget for evaluation and the time for an appropriate analysis is regarded as scarce. Only in Germany, Austria and Portugal has an update evaluation been carried out; and except for in Germany, the ex post evaluation has not yet been started.

Institutional aspects seem to play an important role in order to explain differences in evaluators' attitudes. Rather astonishingly, only a few countries used a tendering approach to award the evaluation contract to the evaluator with the best cost-benefit offer. While the participating evaluators could be grouped as contractor/client oriented on the one hand and scientifically oriented on the other, these attitudes seem to depend on the institution they work at. These different attitudes heavily influence the views on the necessary database, methodical approaches and the question of conflicts of interest in case of a close cooperation with the principal.

Many evaluators are involved in different steps of the evaluation-process. This involvement in several evaluation stages can imply both advantages (e.g., access to information) and problems (e.g., loss of independence), a fact that has obviously not been discussed on a wider basis thus far.

## **Part II: Final discussion**

### **1 Introduction**

The final discussion was planned to provide room for relevant evaluation aspects which had not been discussed in the workshop thus far. These aspects referred to

- (a) relevant evaluation questions regarding investment support,
- (b) the impact of evaluation results on policy and administration
- (c) the need for international exchange.

The organisers posed some subquestions before starting the discussion to provoke consideration of individual aspects. This structure is adopted below and the summarising results of the discussion are stated afterwards. Unfortunately, not all subquestions could be addressed during the final discussion.

### **2 What are the relevant questions for a sound evaluation of investment support?**

#### **Subquestions**

- What hinders enterprises in investing in profitable projects? Do they really need public support?
- If an investment generates effects, how can we know which part is caused by the measure (net-effects)?
- Is there a need for analysis of the measure's effects on the structure of the sector (structuring effect)? What is an appropriate structure?
- What are the positive external effects of the investments and is the measure an efficient means for reaching them?

#### ***Discussion***

It is mentioned, that supported investments do not necessarily have to be profitable. This depends on the goal of the measure. Even profitable investments might be hindered though. In the Netherlands, licensing requirements and orders regarding construction and environment are the most serious restraints for investments.

In Greece, most farmers would not get credits from the bank without investment support. Therefore the access to credit is one of the decisive hindrances for investment. The same is

true in Italy. Investment support is actually seen as part of social policy but no politician would state it that way, commented the Greek participant.

The discussion turned to the objectives of the intervention programme and the relevant measure because without knowledge of these objectives, evaluation is deemed to be futile. A German participant commented that there is uncertainty among stakeholders as to which structural effects investment support has had in the past two or three decades. They often do not even have any idea of the basic effects of the measures, e.g., improvement of competitiveness of the sector, acceleration of structural change, compared with a situation without support. The French participant added that investment support might help to compensate for decreasing product prices; he did not see a possible ambiguity in structural effects with respect to the goal of competitiveness.

It was mentioned, that stakeholders should be asked to identify their interests. In reply the question emerged of how such information on interests should possibly be evaluated and integrated in the reports.

#### ***Remark***

It has to be remarked that the above questions asked in advance were not directly addressed in most comments. This contributed to the impression that many participants were not very familiar with those kind of questions so far. It may therefore be that only after ex post evaluation will an assessment of some of these aspects be able to be answered more properly.

### **3 Impact of evaluation results on policy and administration?**

#### **Subquestions**

- Are recommendations of the evaluators being followed?
- How do politicians (EC, national, regional) and the administration react on the results?
- Is there a broad discussion of the results?
- When, where and how are the results published?
- Is evaluation an interactive process or rather a one-way-task? Pros / cons of a close cooperation with the principal?
- Is the financial input for evaluation sufficient?

### ***Discussion***

According to the evaluators' statements, there is often almost no discussion of the evaluation results after the reports have been finished. If at all, a discussion of results only took place between administrative bodies and evaluators.

Recommendations are only followed if they serve the respective political objectives. Otherwise evaluation and evaluators are seen as an annoying liability.

The publication of results is far from being a matter of course. In some countries evaluation reports were not published at all (France, Greece). In Germany reports are only allowed to be published with the consent of the principals. There were strong voices (especially from German evaluators) in favour of extensive publication of evaluation concepts, methodologies and results in order to ignite a necessary discussion process. This is seen as essential for directly improving evaluation techniques and indirectly improving the Rural Development Programmes.

## **4 Do we need international exchange?**

### **Subquestions**

- Would it be helpful to exchange information on methodological questions?
- Is it important to speak with one voice to the EU?
- Do similar evaluation institutions work all over Europe so that networking could be relevant and successful?
- Is it sufficient to cooperate on an occasional basis?

***or***

- Do we need an institutionalised platform for exchange?

### ***Discussion***

The participants are very much in favour of continuing an international exchange in the manner followed in this workshop. The next workshop should be scheduled in 2008 when experience with ex post evaluation is on hand. However, there was also consensus that an institutionalised form of exchange is not necessary.



## **Appendix**

**Appendix 1    Programme**

**Appendix 2    List of Participants**



## European Workshop on the Evaluation of:

- **Farm Investment Support**
- **Investment Support for Improvement of Processing and Marketing of Agricultural Products**

June 27 – 29, 2006

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### Tuesday, 27<sup>th</sup> June 2006: Plenary Sessions

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From 12:00     **Registration and Lunch**

14:00-16:30     **Welcome**

*Prof. H.-J. Weigel*, President of the Federal Agricultural Research Centre, Germany

**Introduction**

*Heinz Wendt*, Institute of Market Analysis and Agricultural Trade Policy, and *Bernhard Forstner*, Institute of Farm Economics, Federal Agricultural Research Centre, Germany

**Methods for the Evaluation of Investment Support**

*Stefan Meyer*, MR Regionalberatung, Delmenhorst, Germany

**Programme Evaluation of Rural Development Plans – Purpose, Approaches and Exemplary Results**

*Andrea Pufahl*, Institute of Rural Studies, Federal Agricultural Research Centre, Germany

**Discussion**

16:30-17:00     **Coffee Break**

17:00-18:00     **Agri Finance – Lost without Support?**

*Carel Gosselink*, Rabobank Nederland Corporate Clients, Food & Agri International Services, The Netherlands

**Discussion**

From 18:00     **Invitation to Buffet and Drinks**

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## Wednesday, 28th June: Parallel Sessions

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### FARM INVESTMENT SUPPORT

### INVESTMENT SUPPORT FOR IMPROVEMENT IN PROCESSING AND MARKETING

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8:30-10:30

#### **A Comparison of Farm Investment Support in Selected EU Member States**

*Angela Bergschmidt and Walter Dirksmeyer*, Institute of Farm Economics, Federal Agricultural Research Centre, Germany

#### **The Use of Impact Indicators for the Evaluation of Farm Investment Support – A Case Study Based on the Rural Development Programme for Wallonia (2000-2006)**

*Monika Beck*, Unité d'économie et de développement rural Faculté universitaire des sciences agronomiques de Gembloux, Belgium

#### **How to Assess the Effects of Farm Investment Support?**

*Bernard Dechambre*, Ministère de l'agriculture et de la pêche, Bureau de l'évaluation et des programmes d'études, France

#### **Discussion**

#### **The Implementation of Investment Support for Improving Processing and Marketing of Agricultural Products in the EU Member States – An Overview**

*Inge Uetrecht and Heinz Wendt*, Institute of Market Analysis and Agricultural Trade Policy, Federal Agricultural Research Centre, Germany

#### **Improving Processing and Marketing of Agricultural Products – Organisation, Problems and Results of Evaluation in Austria**

*Julia Neuwirth and Karlheinz Pistrich*, Federal Institute of Agricultural Economics, Austria

#### **Discussion**

10:30-11:00

#### **Coffee Break**

11:00-13:00

#### **Implementation of Farm Investment Support in Italy – Mid-Term Analysis**

*Barbara Costantini, Maria Cristina Sibilla*, Dipartimento di Scienze Statistiche "Paolo Fortunati", Università di Bologna, Italy

#### **Regional Absorption Capacity of Farm Investment Support in Poland**

*Pawel Chmielinski*, Department of Social and Regional Policy, Institute of Agricultural and Food Economics, Poland

#### **Effectiveness and Impacts of Farm Investment Support in Spain – The Experience of the Updated Mid-Term Evaluation (2000-2006)**

*Luis A. Collado Cueto*, Area de Arquitectura e Ingenieria, Dpto. Programas de Desarrollo, Spain

#### **Discussion**

#### **Synthesis of the RDP Mid-Term Evaluation in Germany (16 Laender) and EC 15 in 2005 - Methodologies, Possibilities, Pitfalls and some Selected Results**

*Andreas Pölking*, agroplan, Germany

#### **Improvement of Processing and Marketing of Agricultural Products – Assessment of Projects**

*Alois Grabner*, Federal Ministry of Agriculture and Forestry, Environment and Water Management (BMLFUW), Austria

#### **Discussion**

13:00-14:00

#### **Lunch Break**

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## Wednesday, 28th June: Parallel Sessions (continued)

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14:00-16:00	<p><b>The Experience of the Evaluation of Farm Investment Support in Greece</b> <i>Dimitrios Lianos</i>, LKN Analysis, Greece</p> <p><b>Evaluation of Farm Investment Support in Germany – Lessons Learned from the Application of Different Approaches</b> <i>Bernhard Forstner</i>, Institute of Farm Economics, Federal Agricultural Research Centre, Germany</p> <p><b>Impact Analysis of Investment Support for Agricultural Buildings</b> <i>Stephan Pfefferli</i>, Agroscope FAT Tänikon, Eidgenössische Forschungsanstalt für Agrarwirtschaft und Landtechnik, Switzerland</p> <p><b>Discussion</b></p>	<p><b>Support to Processing and Marketing of Agricultural Products in Portugal</b> <i>Pedro Serrano</i>, Agrogos, Portugal</p> <p><b>Two Approaches to Evaluation – The Case of the Processing and Marketing Grant in England</b> <i>Mark Temple</i>, ADAS Policy and Economics Group, England</p> <p><b>Discussion</b></p>
16:00-16:30	<b>Coffee Break</b>	
16:30-18:00	<p><b>The Analysis of Changes in Farm Investment Support Policy in Poland after Joining the European Union</b> <i>Cezary Klimkowski, Joanna Nargiello, Justyna Ziolkowska</i>, Institute of Agricultural and Food Economics, Agricultural Finance Department, Poland</p> <p><b>Farm Investment Support – Discussion on Competitiveness and Employment in the Agricultural Sector</b> <i>Jean-Marie Wathelet, Patrick Van Bunnan</i>, ADE Belgium</p> <p><b>Discussion</b></p>	<p><b>Does Complete Field Research Build a Good Basis to Evaluating the Measure?</b> <i>Jochen Nölle, Josef Efken</i>, Institute of Market Analysis and Agricultural Trade Policy, Federal Agricultural Research Centre, Germany</p> <p><b>Discussion</b></p>
From 19:30	<b>City Tour and Dinner in a traditional German Restaurant</b>	

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## Thursday, 29<sup>th</sup> June: Plenary Session and Closure

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8:30-10:30 **How to Evaluate a Measure without Goals – Considerations on the Basis of the Paradigmatic Example of Farm Investment Support in Germany**

*Anne Margarian*, Institute of Farm Economics, Federal Agricultural Research Centre, Germany

**EC Common Baseline Indicators in new Programming Period: An Evolution towards a Strategic Approach in use of Indicators**

*Patrick Van Bunnem*, ADE, Belgium

**Ex Ante Evaluations of Rural Development Programmes – Not just an Appraisal**

*Rudy Ooijen*, ECORYS-NEI, Netherlands

**Discussion**

10:30-11:00 **Coffee Break**

11:00-13:00 **Summary and Final Discussion**

*Heinz Wendt*, Institute of Market Analysis and Agricultural Trade Policy, and *Bernhard Forstner*, Institute of Farm Economics, Federal Agricultural Research Centre, Germany

**Discussion:**

- What are the relevant questions for a sound evaluation of investment support?
- What is the impact of evaluation results on policy and administration?
- Do evaluators of investment support need international exchange?

**Conclusions**

From 13:00 **Lunch and Departure**

Appendix 2: **List of Participants of the European Workshop on Evaluation**

<b>No.</b>	<b>Name</b>	<b>Institution</b>	<b>Street + House Number</b>	<b>Zip Code + City</b>	<b>Country</b>
1	Beck, Monika	Department of economics and rural development, University of Gembloux (Unité d'économie et de développement rural Faculté universitaire des sciences agronomiques de Gembloux)	Passage des Déportés, 2	5030 Gembloux	Belgium
2	Bergschmidt, Angela	FAL, Institute of Farm Economics	Bundesallee 50	38120 Braunschweig	Germany
3	Chmieliński, Pawel	Department of Social and Regional Policy, Institute of Agricultural and Food Economics	ul. Świętokrzyska 20	00-002 Warszawa	Poland
4	Costantini, Barbara	Dipartimento di Scienze Statistiche "Paolo Fortunati", Università di Bologna	Via delle Belle Arti, 41	40126 Bologna (BO)	Italy
5	Collado Cueto, Luis A.	Tragsatec, Area de Arquitectura e Ingenieria, Dpto. Programas de Desarrollo	C/ Julián Camarillo, 6b, plta. 3-B	28037 Madrid	Spain
6	Dechambre, Bernard	Ministère de l'agriculture et de la pêche, Bureau de l'évaluation et des programmes d'études	78 rue de Varenne	75349 Paris 07 SP	France
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