# SIXTH FRAMEWORK PROGRAMME SPECIFIC TARGETED RESEARCH PROJECT n° SSPE-CT-2006-044403



#### **AGRIGRID**

Methodological grids for payment calculations in rural development measures in the EU

# General framework and methods for data collection including proposed structure of summary reviews /M1.1/

Document number: WP1 (final version)

Authors' Institution: Research Institute of Agricultural Economics (VÚZE)

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## 1. Objective of the subtask M1.1

The main objective of the subtask M1.1 of WP1 is to provide the general framework for data collection and coordinate the comparative analysis of the payment calculations for different policy measures in the new rural development plans (RDPs). Moreover, the general framework should also <u>determine the general structure of the five summary reviews</u> delivered by WP2-WP6 team to WP1 for creation of the synthesis report (D2 "Summary report on review of payment calculations for RD measures").

The designed general framework (see chapter 4) should **be instrumental** for WP2-WP6 leading teams **to develop particular questionnaires** for data collection documenting current methods of payment calculations in the selected RD measures (agri-environment measure (AEM), compensatory allowances (LFA), Natura 2000 payments, forestry schemes, animal welfare and meeting standards measures) in seven partner countries (and selected regions): Scotland (UK), Germany (DE), Greece (GR), Finland (FI), Italy (IT), Czech Republic (CZ), Lithuania (LT) and two additional member states (will be decided later in March).

It is expected that two additional sub-contractors will be coordinated by P3 (AUA) and P7 (INEA). A suitable budget for sub-contracting is included in the budget allocations for P3 and P7, who will be responsible to oversee the progress of the sub-contractors' work. It means that all communication will be provided through partners P3 and P7 and the sub-contractors are expected to fill in the same questionnaires by the first week of May 2007.

Although the main attention will be paid to the payment calculation methods applied in the new RDPs valid for programming period (2007-2013), several questions (e.g. uptake or other statistical data, development of payment rate) will be focused on earlier RDPs as well.

#### 2. Methods for data collection

We recommend using two methodological approaches for data collection which can be variously combined in each country:

- a) literature reviews of key policy documents (e.g. RDPs, national governmental statements and regulation, EU regulations), research studies and specialized literature deal with payment calculation issues as well as relevant grey literature and relevant statistical data
- b) semi-structured interviews with key representatives of government agencies and organisations responsible for payment calculations in each specific field (in addition interviews with beneficiaries can be provided to add their opinion of correctness of payment level – only as a voluntary complement)

The extent of the contribution of each of the approaches is left to the partners according to the different potentials of each approach in the different countries for contributing to the description of the current methods of payment calculations in the selected RD measures. In some countries the policy

documents / literature are so exhaustive that only few questions remain unanswered and only short interviews might be necessary while in other countries so detailed data are not available and interviews with key informants are very important.

#### 2.1 Scope of the project

According to the agreement made at the kick-off meeting following coverage of regions and RD measures is planned. Choice of regions and sub-measures in partner countries **should be reviewed by end of March 2007**.

#### 2.1.1 <u>Determination of regions</u>

The investigation will be provided in seven partner countries and two sub-contractor countries. In all countries, except Germany and Italy, the methods of payment calculations will be analysed within the whole country approach. Only in Germany and Italy due to administrative structure, 3 regions will be chosen according to diversity and data availability.

List of participated countries / regions:

- Scotland (UK)
- Germany (DE) 3 chosen regions ...
- Greece (GR)
- Finland (FI)
- Italy (IT) 3 chosen regions ...
- Czech Republic (CZ)
- Lithuania (LT)
- + Spain (ES) probably should be chosen regions as well
- + Poland (PL).

#### 2.1.2 Determination of RD measures

By the term "RD measures" are meant 6 rural development measures chosen for the investigation of payment calculation methods within the project. We recommend for better understanding to use the title "measure" for the highest level and sub-measures, schemes or categories for lower level of the measure.

List of selected RD measures (according to Council Regulation (EC) No 1698/2005):

- agri-environment payments = agri-environment measure (AEM),
- compensatory allowances = LFA measure:
  - natural handicap payments to farmers in mountain areas
  - payments to farmers in areas with handicaps, other than mountain areas
- Natura 2000 payments on agricultural land = *Natura 2000 measure*,
- sub-measures targeting the sustainable use of forestry land = *forestry measure*:
  - first afforestation of agricultural land

- first establishment of agroforestry systems on agricultural land
- first afforestation of non-agricultural land
- Natura 2000 payments on forestry land
- forest-environment payments
- restoring forestry potential and introducing prevention actions
- animal welfare payments = animal welfare measure,
- meeting standards based on Community legislation = meeting standards measure.

Due to large number of different sub-measures within the selected RD measures, it was agreed at the kick-off meeting that one common sub-measure in all countries (the same for all as for example organic farming payment) and two specific sub-measures per country (different in every country) will be selected for further analysis. This approach will be used mainly in the case of agri-environment measure but could be applied for other RD measures, except forestry measures, if it is possible.

#### 2.2 How to fill in the questionnaire - recommendation

- translate the questionnaire into your language
  It is important that cultural bias through different interpretations of words is minimized.
  Therefore you should translate the questionnaire not strictly word by word, but first try to get the right idea of what is asked for and then look for the correct word in you language.
- choose the appropriate approach for your country: If possible, a literature review should be carried out and remaining gaps of information can be filled in by information gathered in interviews with key informants. Else, interviews with key informants are carried out and the information thus gathered is accomplished by review of some literature.
- in the case of literature review: key policy documents should be gather, especially chapters about the selected RD measure from the new RDP (2007-2013)
  Since it is expected that these documents and RDP chapters are not available in English language in all partner countries, selection of important text and translation into English language made by partner and sending to particular WP2-WP6 team will be required here.
- in the case of interviews: carry out interviews with the institutions / actors identified (see 2.3.1)

  We expect to conduct up to 2-3 interviews in the Czech Republic with one person responsible for payment calculation (research institute), with one person responsible for implementation (MoA) and in some cases with additional person who have certain influence on final level of payments (MoE). But the situation in other countries could be different...
- in view of the fact that some questions / tables can be completed on the basis of various sources, it is necessary to mention particular sources of data under each question / table to be clear where data came from
- write down short overviews over the literature reviewed and attached selected texts of policy

documents important for selected RD measure in English language

 write down short protocol of the interviews carried out indicating extra remarks and own observations which cannot be included in the questionnaire

#### 2.3 How to conduct the interviews

#### 2.3.1 Selection of respondents

The respondents should be selected applying the following criteria:

- respondents who are responsible for payment calculations in the selected RD measures (agrienvironment measure, compensatory allowances, Natura 2000 payments, forestry schemes, animal welfare and meeting standards measures), e.g. representatives of research institutes, representatives of universities, officers at the Ministry of Agriculture and / or Ministry of Environment, representatives of agencies for nature conservation and landscape protection, etc.
- respondents who deal with the final payments implementation and can have certain influence on the final level of payment, e.g. officers at the Ministry of Agriculture and / or Ministry of Environment, representatives of paying agencies, expert groups, etc.

#### 2.3.2 How to conduct the interview

- Please describe briefly what is the scope of AGRIGRID project and main objective of the actual subtask.
  - (While presenting the project please refer to the Internet site of the project <a href="http://www.macaulay.ac.uk/agrigrid/">http://www.macaulay.ac.uk/agrigrid/</a> as the source of the basic information on our activities)
- You may give to the respondents the questions before the interviews to make them familiar with the issues we intend to investigate.
- Mention that respondents can / will stay anonymous but only organization or institution which they represent will be mentioned in the final report.
- As the interviews deal with qualitative data it is indispensable to carefully take notes on the course of the interview. It is not enough to fill in the questionnaire, but the interviewer should write down additional remarks and observations made.
  - Therefore it is recommended to conduct the interviews by at least two researchers to be able to make the notes efficiently and to review the impressions and results of the interview in a team. It is preferable to supplement your hand written notes as soon as possible after the interview with additional remarks and observations on the respondents' comments. If there are two interviewers do this individually and discuss the results together.
- Mention that if respondents will be interested in the results, they can look at the project's homepage, where final reports will be uploaded as soon as they are completed.

#### 2.3.3 Protocol

Each interview is documented in a protocol, which is only for internal use and contains the answers to the questions asked as well as the additional remarks made by the interviewee. The protocol should include:

- the name of the person interviewed and representing institution
- date and place
- remarks and comments of the interviewee that cannot be included in the questionnaire
- own observations and reflections on the interview

#### 3. Work to do

We expect partners (WP2-WP6) to:

- create 6 questionnaires for selected RD measures regarding coordinated WP (agrienvironment measure, compensatory allowances, Natura 2000 payments, forestry schemes,
  animal welfare measure and meeting standards measure), based on the general framework –
  keep proposed structure, by adding more questions specific for particular measures;
- 2. *prepare guidelines* describing how to fill in the questionnaire and conduct the interviews using recommendation mentioned in this document (see chapter 2.2. and 2.3);
- 3. **circulate drafts of questionnaires** among project partners in order to modify them according to national differences and make them more suitable (it is possible to allow little modification of questionnaires according to national conditions during fulfilment as well)
- 4. at first *fill in the questionnaire by data of your own country* (partly or completely) as an example, (for RD measure relating to coordinated WP), to help other partners (subcontractors) with right fulfilment of the questionnaire;
- coordinate process of data collection for selected RD measure and provide necessary clarification of received data;
- prepare 5 summary reviews of calculation methods for selected RD measure based on the completed questionnaires from all partner (and 2 subcontractor) countries in a structure proposed in this document (see chapter 5);
- 7. **circulate drafts of summary reviews** among project partners in order to check information for accuracy and close eventually gaps of information;
- 8. submit completed summary reviews to us (P4) latest by end of May together with all questionnaires as a basis for synthesis report
- 9. give critical and comprehensive *feedback* on our synthesis report (*comment draft*);

If any of the tasks are not clear to a partner or sub-contractor, please do not hesitate to contact us

(P4) - personally: Andrea Hrabalová as person responsible for WP1.

In preference by mail: ahrabal@chello.cz (eventually hrabalova@vuze.cz)

Or by mobile: 00420-737-852515 (eventually telephone: 00420-541 213 801 but only in advance

agreed day) or by fax: 00420-541 211 321.

#### 3.1 Timetable

Steps	Responsibility	Deadline
First draft of general framework sent to Ps	P4	till 15 <sup>th</sup> of February 2007
Comments on the first draft sent back to P4	Ps	till 22 <sup>nd</sup> of February 2007
Final version of general framework completed and sent	P4	end of February 2007
to Ps		
Creation of 6 questionnaires for selected RD measures	P1,P3,P4,P5,P6	till 9 <sup>th</sup> of March 2007
and sent to Ps for comments and modification		
Finalization of 6 questionnaires according to comments	P1,P3,P4,P5,P6	till 16 <sup>th</sup> of March 2007
of partners and sent to PS (+Sc) for fulfilment		
All questionnaires completed and sent back to	Ps (+Sc)	till 6 <sup>th</sup> of May 2007
P1,P3,P4,P5,P6 (WP2-WP6 team)		
First draft of summary reviews for each RD measure	P1,P3,P4,P5,P6	till 20 <sup>th</sup> of May 2007
sent to Ps		·
Comments on the summary reviews	Ps (+Sc)	till 27 <sup>th</sup> of May 2007
Summary reviews for each RD measure completed and	P1,P3,P4,P5,P6	end of May 2007
sent to P4		
Clarification of summary reviews and additional	P4	till 21 <sup>st</sup> June 2007 (end of
necessary information changes with P1,P3,P5,P6		review workshop)
Outcome of measure-specific reviews presented at	P1,P3,P4,P5,P6	from 18 to 21 June 2007
review workshop		
First draft of deliverable D2 (synthesis report from the 5	P4	end of June 2007
summary reviews) sent to Ps		
Comments on the first draft D2 sent back to P4	Ps	till 15 <sup>th</sup> of July 2007
Final version of deliverable D2 completed and sent to	P4	end of July 2007
P1 (coordinator)		

Note:

P4 = Czech team; Ps = all 7 partners; Sc = subcontractors (will be selected later)

#### 4. General framework

#### for creation of questionnaires focused on the particular RD measure

The proposed framework is structured in 4 parts (the same structure should be used for processing of the summary reviews provided by WP2-WP6 teams).

#### Proposed structure:

- I. Basic data about the RD measure as a whole (AEM, LFA, Natura etc.),
- II. Information about the methodology of the payment calculation,
- III. Information about the data sources,
- IV. Contextual information.

#### I. Basic data

From this part we would like to obtain basic information about the <u>whole structure</u> of the RD measure; level of the payment for single schemes, sub-measures or categories; extent of the RD measure usage; existence of payment differentiation and changes with respect to the last programming period. Collection of additional information about the eligibility criteria (conditions for RD measure access) and aims of selected RD measures are also a part of this framework.

1. Fill in following table "Overview of the current RD measure" according to the instructions below:

(for better understanding see examples for LFA and AEM in CZ in annex 1):

- Name of sub-measures, schemes or categories of the RD measure
   (it is expected to be described whole structure of the measure in detail according to separate payment rates existed)
- b) Differentiation of the payment = existence of more payments for one sub-measure, scheme or category (e.g.: by region, farm structure, time of commitments for OF, slope land etc.); in this column write NO or YES according to existence of differentiated payments (also write their payment levels or intervals in the column c));
- d) The percentage level of confirmed payment compared with calculated payment (presumption of the level is 100%; the lower means calculated payment is not paid in total / the higher

means that the particular schemes are preferred or that transaction costs are applied in the case of AEM or animal welfare payments)

If the level is differing from 100% write the reasons below the table.

#### (examples in CZ:

- LFA each category: percentages related with differentiated approaches of payments;
- AEM OF permanent crops 62%: due to keep the EU limit (900 EUR/ha)
  - integrated production of vegetable (IP) 80%: limits of financial resources for AEM and need to keep particular difference between IP and organic farming systems)
- e) Targeting of payments determination of areas where it is possible to enter into the particular sub-measure, scheme or category.
  - (e.g.: AEM: payment could be horizontal (for whole republic e.g. OF), regional (only in given areas e.g. county) or mixed (possible for whole republic but only in given areas e.g.: crake protection in the CZ);
  - LFA: the payment is only for areas given as LFA according to given criteria as the altitude, slope land, soil quality etc.).
- f) Existence of measure (single sub-measures, schemes, categories) before the year 2007 and change of its payment level in the new RDP. The existence of measure is investigated in scope of the earlier RDP for programming period 2000/2004-2006. If the measure existed previously, fill in column f) by following marks: 0 measure didn't exist, increase of payment, esame payment.

If there were some changes in comparison with previous period (increase or decrease of payment level) write the <u>reasons below the table</u>.

(examples in CZ: AEM – payment levels increased for most of AE schemes: due to more actual data (different production price, costs of inputs, gross margins etc.) but the same methodology was used).

Table 1: Overview of the current RD measure

a	b	c	d	e	f
Name of measure (i.e. sub-measures, schemes, categories)	Is payment somehow differentiated? Yes/No	Level of EUR/ha (CZK/ha)	f payments % in calculated level of payment	Targeting	If measure existed previously, fill in payment level change

2.	Are in your country implemented any differentiated payments (within the RD measure)?  (e.g. by natural condition: climate, soil quality, altitude zone, slope, etc.; by farm structural characteristics: arable farm, horticulture farms, permanent cropping farms, pig / poultry farms, etc.; by regional characteristics: National Park, Protected Landscape Area, Natura areas, etc.)?  YES  NO
	If YES (should be already mentioned in column b) of the table 1 above), describe what kind of differentiated payments exists (How are payments differentiated?) and why such differentiation is provided (What are reasons for keeping more payment levels instead of one single payment?):
	(Some examples for LFA- differentiated payments according to: - relevance of environmental limitation: CZ (mountain area Ha and Hb, Other Oa and Ob, specific S), France (alpine dry and others, mountain dry and others, Piedmont, Others LFA), Latvia (LFA I, LFA II, LFA III)
	<ul> <li>land use: Sweden (for pastures and cutting meadows, potatoes and cereals), Spain (irrigation land)</li> <li>size limits: Sweden (up to 60 ha and over 60 ha), England (100% up to 350 ha, 50% up to 700 ha, 0% over 700 ha = more than differentiation it belongs to modulation / limitation of payment)</li> </ul>
	- keeping additional environmental condition of farming: Wales and England (increasing by 10- 20% - keep minimum LU/ha, organic farming etc.),
	<ul> <li>production character of farm: Wales and England (combination of cattle and sheep breeding), France (farms with milk production are excluded), Austria (higher payment for farms with cattle breeding)</li> <li>characteristics of farm / farmers: Greece (higher payment for younger farmers, educated farmers and with "Green certificate"), Spain (necessary to have domicile in the same locality as land)</li> </ul>
	If none, write reasons:
	(Examples in CZ – AEM:
	All AE measures are horizontal (valid for whole country without any modification) - main reason is to keep low administrative severity, other reason is building of payment agency structures and evidence, and

absence of detailed data for differentiation of payments according to the regions or farm types).

٥.	have differentiated approaches been implemented in past but not in subsequent programme?
	☐ YES
	□ NO
	If YES, write which and why do not continue?
	(Examples in organic farming in Germany: Bavaria (by stocking rate); MeckVorp. (by year of conversion);
	Schl-Hols. (by farm size (ha))
4.	Have differentiated approaches been discussed in-house but not been implemented?
	☐ YES
	□ NO
	If YES, write which and why have not been implemented?

# II. Methodology of the payment calculation "How payment levels are currently calculated"

From the second part of the questionnaire we would like to obtain information about the methodology of payment calculation for the RD measure or rationale chosen sub-measures. We are interested mainly in approaches using for the calculation, with identification of foregone income (losses), additional costs and possible savings. In the case of AEM and animal welfare, it is necessary to pay attention to transaction costs as well. Regarding to the project aims limits of payments, problems with payment calculation and their solutions are also investigated.

It is important not to forget the connection between payments and so-called "baselines" (conditions resulting from the national law, GAEC and Cross-Compliance), which are not possible to pay out within the RD measure payments. The aim is to establish and compare a list of GAEC and other baseline requirements which can not be paid out within RD measures (for this purpose it is possible to use table for GAEC - see annex 2).

- 5. Identification of commitments entering into the payment calculation of RD measure and detail description of payment calculation process:
  - According to EU regulation payments should compensate foregone income /losses and additional costs, which are connected with RD measure access:
  - <u>foregone income / losses</u> (e.g.: decrease of production in OF, lower quality of hay production due to later cutting, etc., in addition also counteractive savings are included as for example price premium for organic products);
  - <u>additional costs</u> (e.g.: obligatory training, additional grass cutting, costs at soil analysis, higher labour costs, etc., in addition also counteractive savings are included as for example the savings of fertilization or spraying costs in OF);
  - <u>transaction costs</u> (since the transaction costs can be used only within agri-environment and animal welfare payments we decided to analyse them in separate question below).

Write in following sequence (see examples for AEM in CZ or Hungarian examples in annex 3):

- A) write name of particular sub-measures, schemes or categories
- B) determination of eligible criteria (fill if the sub-measure is limited for some specific areas)
- C) describe relevant commitments of particular sub-measures, schemes or categories
- D) describe necessary **land use** /**management practice changes** or maintenance resulting from these commitments and identification of those which are entering into the payment (for those which are not entering into the payments write reasons)
- E) finally describe the **process of payment calculation** for chosen sub-measures, schemes or categories of the RD measure (preferably into the table). The aim is to identify particular items of payment, its data source and used reference period. For better understanding please use notes describing the process of payment calculation in more detail.

Note: Since this area is one of main objectives of the AGRIGRID project, it is necessary to provide an explanation for the payment calculations in maximum detail as possible - detail description of compensatory payment layout = what items were included in calculation and what is the rationale of including such items into the calculation...)

#### A) Name of sub-measure: Conversion of arable land to grassland

- **B)** Eligible areas: land block used as arable land, which meets at least one of the following criteria, may be entered into this scheme:
  - More than 50% of the land block are covered by soils that are shallow, sandy, waterlogged, very heavy, difficult to cultivate or
  - At least 50% of the land block's area are located in sensitive areas according to Council Directive 91/676/EEC or
  - Any part of the land block falls under an LFA or
  - The land block's medium slope is greater than 10°

#### C) Relevant commitments – contractual obligations:

A land block used as arable land, on which the farmer observes the following minimum conditions of the required management, may be entered into this management:

- 1. The conversion to grassland shall concern the whole land block or its part of a minimum area of 0.1 ha.
- 2. The conversion to grassland can take place through sowing into prepared seedbed or through under-sowing into a cover crop. The grass seed mixture shall be sown by 31 May. Where the conversion to grassland takes place through under-sowing, the applicant shall harvest the cover crop by 30 June at the latest and shall assure at that time that the converted parcels will be covered with a continuous grass cover.
- 3. In the first year after the grassing, the area concerned shall not be fertilised or grazed, but it shall be mowed at least twice a year (in justified cases only once a year) and the mowed biomass shall be removed from the parcel and used within the farm or disposed in conformity with the Waste Act. The mowed biomass may be used also outside of the farm as a source for the production of renewable energy.
- 4. Weeds shall be controlled through cutting. Herbicides may be used only in the first two years and only a spot application shall be possible (especially in the event of an occurrence of persistent and invasive species). Farmers operating in the organic farming system may not use even a spot application of herbicides.
- 5. Starting from the second year the area shall be managed by mowing at least twice a year within set deadlines or by grazing within a set deadline. Application of nitrogen containing fertilisers, livestock manure and treated sludge shall be prohibited in specified areas.
- 6. Arable areas that had in the past been registered as grassland in the LPIS may not be entered into this scheme.

#### D) Land use /management practice changes:

- 1. no agronomic effect
- 2. The loss of income (gross margin) from arable production, based on average values, is the main starting point for the establishment of the payment. The loss is partly offset by a potential income from the grassland. Additional costs to establish the grassland are another factor.
- 3. Mowing is not a reason for payment as it is a part of common farming practice. Rules for removing have no agronomic effect.
- 4. no agronomic effect
- 5. Mowing is not a reason for payment as it is a part of common farming practice.
- 6. no agronomic effect

#### E) Table of process of payment calculation

	CZK/ha	Data source	Reference period
Income foregone			
Gross Margin (GM) average for main crops:			
GM for wheat (its share on area = 55,83%)	0.775	FADN /	(2001, 2002
	8,775	CSO -shares	and 2004)
GM for barley (its share on area = 23,52%)	0.200	FADN /	(2001, 2002
	9,398	CSO -shares	and 2004)
GM for rape (its share on area = 20,66%)	7.072	FADN /	(2001, 2002
	7,973	CSO -shares	and 2004)
Gross Margin from arable land <sup>1</sup>	0.750	FADN	(2001, 2002
	8,750		and 2004)
Gross Margin from grass (income-variable costs from	3,163	FADN	(2001-2004)
new grassland) <sup>2</sup>			
Gross Margin from grass – recalculation <sup>3</sup>	2,531	X	X
Total income foregone 4	6,219	X	X
Additional costs			
Additional costs for seeding <sup>5</sup>	2,750	Norms	2004
Additional costs for grass seed (50 kg / ha á 90 CZK/kg)	4,570	Norms /	2004
		advisors	
Additional costs for seeding - recalculation <sup>6</sup>	1,464	X	X
Additional costs for supplemental sowing <sup>7</sup>	366	advisors	X
Total additional costs	1,830	X	X
Proposed amount of support - rounded	8,050	X	X

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Gross Margin (GM) for arable land is based on weighted average of GM for the main crops on arable land in CZ (wheat, barley and rape) where weights are their acreage. GMs are calculated as an average of the years 2001, 2002 and 2004. The year 2003 was excluded due to very extreme values.

GM for meadow are used as basis = it is income from hay (2,4 tons/ha \*1575 CZK/ton) minus variable costs (618 CZK/ha). Data come from FADN.

The payment contribution for fixed costs and profit for grass corresponds to the condition of the ban on application of nitrate fertilisers on seeded areas and equals CZK 3,163/ha. Full use of grass mass in the second year of the duration of the subcategory is presumed, i.e. income is presumed after years. The calculation has been made per year of duration of the category: (3163\*4)/5.

Income loss from production on arable land is reduced by income from grass, i.e. 8750 - 2531.

The information corresponds to the amount of variable costs for the establishment of grass.

Additional costs for seeding were divided by the number of years of duration of the subcategory, i.e. five (2750+4570)/5.

The need for supplemental sowing according to expert evaluation equals on average 25 % of seeded area during the 5-year obligation, i.e. recalculated per year of obligation (0.25\*7,320)/5 = 366.

	Only for AEM and animal welfare
6.	Do you involve into the payment calculation the transaction costs?  YES NO
	If YES, describe the methodology of their calculation including the level of these costs, data sources and write the name of the sub-measure where they are used:
7.	If it is not possible to describe the process of payment calculation for RD measure / chosen submeasures in your country by using the procedure suggested in question nr. 5., explain used methodologies of calculation more detailed here:  (It is expected to provide here something like "instruction manual".  In addition an existence of any other alternatives to standard costs methods for payment calculations used (e.g. tenders) should be mentioned here as well.)
8.	Please describe commitments defined in the baseline requirements which have impact on payment calculation:  a) describe your system of good agricultural and environmental conditions (GAEC) and its relation to commitments of the RD measure (see examples for GAEC in Annex 2)
	<ul> <li>(CZ example: GAEC in RDP (2007-2013)):</li> <li>1) Not disturbing of landscapes elements which are boundaries, ledges, groups of evergreen tree species and grassy valley lines.</li> <li>2) Excluding of production of the maize, potatoes, beet, bean, soya and sun-flower on the land blocks or on the part of land blocks with the average slope land higher than 12 degrees.</li> <li>3) Placement of the sevage or the stale into the soil at the latest to 24 hours after their application onto the surface of the arable land, with the exception of row additional fertilization of growths by hose</li> </ul>

4) Excluding the change of the permanent grassland into the arable land.

excluded by special regulation.

5) No burning of the herbal residues on the land blocks, eventually on the parts of the land blocks.

applicators, on the land blocks eventually blocks registered in the register at the applicant as a type of agriculture culture arable land, with average slope land higher than 3 degrees, if this application is not

None from five GAEC have impact on RD measure payment – these conditions are not mentioned in contractual obligations – are very general). BUT in the programming period 2004-2006, there was following requirement within Good Farming Practices (GFP) which had impact on payment calculation since additional second cutting of grass can not be paid out from AEM.

("Grasslands shall be grazed or mowed at least twice a year. The mowed green mass shall be removed from the parcel. The first mowing shall take place by 15 July at the latest, unless the conditions of individual agrienvironmental schemes stipulate otherwise").

	b) describe any other conditions resulting from the national law or Cross-Compliance which can not be paid out within the RD measure payments:
	(CZ example: condition from national legislation – "prohibition of fertilization in the 1st zones of National Parks and Protected Landscape Areas (the most valuable areas)". It is necessary to decrease some AE payments by a fix amount for those localities since the requirement of fertilization reduction came from the Law and can not be compensated here.
9.	Are in your country provided payments which levels exceed limits given in EC Regulation nr.
	1698/2005 (eventually any national limits)?
	☐ YES
	□ NO
	If YES, describe them and write reasons:
10.	Are in your country applied any maximum criteria (e.g.: farm size, amount of money) which limit
	level of payment?
	(degression of payment according to hectares = full support up to 100 ha, 50% up to 300 ha, 0%
	over 300 ha; maximal payment per farm; payment for limited time of commitment as in OF, etc.).
	☐ YES
	□ NO
	If YES, describe the limits, particular sub-measures / schemes by which are used and reasons for
	setting these limits:
11.	What problems did you encounter during the payment calculations? (What problems have been
	encountered?)
	(e.g.: determination of decrease of the hay production incurred by lower fertilization, more
	difficult work in vineyards with higher slope land, etc.)

12.	What solutions did you derive for these problems? (What solutions have been derived for these problems)?
13.	Which issues remain unsolved and why?
14.	Is potential over- and under-compensation an issue when designing new measures and payment schemes?

#### III. Data sources

This part aims at data, which are used for payment calculation of RD measure. The objective is to compare availability of data and to found out which data sources are used and for which purposes.

- 15. Fill in following table according to the instructions below:
  - a) specify data sources used for calculation for RD measure (try to provide whole list);
  - b) write organisation responsible for data source
  - c) periodicity (it means how frequently are they up-dated, published);
  - d) spatial aggregation level (it means how data are used within payment calculation, not in which form exist)
  - e) purpose of the source usage (write briefly the main range of usage within payment calculation).

Table 2: The list of the data sources necessary for payment calculation and their usage

(examples in table related to AEM in CZ)

a	b	c	d	e
Data sources	Organisation responsible	Periodicity	Spatial aggregation level	Purpose of usage
FADN	VUZE	annual	whole country	<ul> <li>Gross margin of particular crops / animal categories</li> <li></li> </ul>
LPIS				
Data from National Statistic Office	Czech Statistic Office		whole country	<ul> <li>Average wage in agriculture         <ul> <li>cost of hour</li> </ul> </li> <li>Number of LU – average         <ul> <li>animal density</li> </ul> </li> </ul>
Norms / cost limits		once in two years	whole country	• Costs of mechanization (cutting, ploughing)
Prescripts, laws				
Technical bibliography				
Research outputs				
Case studies				<ul> <li>Cost for manual work (manual cutting,)</li> <li>Costs for sheep breeding on dry grassland</li> </ul>
Expert studies				data for organic farming (vegetable and permanent culture)
Commodity reports				• clarification of average yields of crops
Green report of MoA				
data from associations				

16.	Which data do you miss for easier calculation (= availability of which data would be made the
	payment calculation easier)? Could you specify?

#### IV. Contextual information

The final part of the questionnaire covers subsidiary information which make possible to provide statistical comparison as among RDP measures as among countries. Next a payment administration issue is added where we would like do investigate administrative complexity of the payment calculation (i.e. how many institutions are involved into the calculation).

#### 17. Statistical comparison – indicators of "uptake"

Based on data in tables below, we can compare following indicators:

- share of areas under the selected RD measure as a whole / or particular sub-measures, schemes or categories / in the UAA (%);
- share of farms / holdings involved in the RD measure (in classification according to submeasures, schemes or categories) in whole number of farms / holdings in agriculture (%);
- share of financial expenditure of the RD measure in the total budget of RDP (%);
- average payment in €/ha of the selected RD measure (eventually per farm,...).

	2004	2005	2006
UAA			
Area of agricultural land in RD measure			
Number of holdings / farms (total)			
Number of holdings / farms entering in RD			
measure			
financial expenditure for RDP (total)			
financial expenditure for the RD measure			

(see Annex 4 for other examples)

18.

e An	inex 4 for other examples)
Co	uld you consider administration complexity of calculation?
a)	How many institutions are involved into payment calculation:
	$\square 2-3$
	more then 3
	Write their names:
b)	How many institutions are involved in making observations / controlling / testing of payments:
	2-3
	more then 3
	Write their names:

	n CZ for AEM:
_	Act No. 252/1997 Coll. on agriculture and its amendments as a general Law,
_	HRDP (Horizontal Rural Development Plan)
_	Government Decree No. 242/2004 Coll. Implemented AEM within RDP (2004-2006),
-	
If you have an	y additional comments on the survey, please use this box:
	to add here: remarks and comments of the interviewee that cannot be included in the
questionnaire,	own observations and reflections on the interview, etc)

### 5. Summary reviews structure

The general framework is designed to make possible a comparison of current methods of payment calculation for the selected RD measures applied in RDPs (2007-2013) and to enable a realization of comparative analysis. The proposed structure of summary reviews corresponds with the structure of designed framework and sorted according to main goals which we would like to investigate.

#### Main goals of comparative analysis:

- 1. Comparison of basis information for the RD measure as a whole
  - Overview of the RD measure structure (type and number of sub-measures, levels of payment, characteristics...)
  - Simple comparison of payment development toward previously RDP /programming period
  - Describing and comparison of differentiated approaches for payments
  - Rationale for the choice of the sub-measures (one common and two specific sub-measures) for the review of payment calculations (*mainly in the case of AEM*)

#### 2. Comparison of payments calculation methods

- Comparison of existing / relevant commitments and their resulting in farming changes (identification of their connection with income losses and additional costs entering into payments)
- Detailed calculation description identification of particular items (in case of AEM and animal welfare, identification of existence of transaction costs)
- Identification of requirements which can not enter into payments "baseline requirements" such as conditions of GAEC, Cross-Compliance or other legislative requirements (e.g. Protection Law, Nitrate Sensitive Area etc.)
- Investigation of main problematic areas occurred during payment design, their solution
- Additional information as maximum payment levels, applied limits, risks of over- and undercompensation

#### 3. Comparison of data sources used and available

- Provide a list of all data sources used within payment calculations and identify its editors, periodicity, their spatial aggregation applied and main areas of their usage
- Evaluation of data availability (identification of missing data sources)

#### 4. Comparison of RD measure uptake and additional interesting information

- Usage of basic indicators make possible to compare among RD measures and countries
- Very brief comparison of administrative structure involved in payment calculation
- Provide a list of state regulations deal with the RD measures
- Mention all additional interesting remarks and information

As an annex of the summary review please attach a list of the literature reviewed and add all texts of policy documents important for the RD measure in English language.

#### Deliverable D2 structure

For the deliverable D2 there are two approaches possible:

- a) to produce a short synthesis report and add the summary reviews as annexes
- b) to include summary reviews provided by WP2-WP6 team into main text of synthesis report

Our team has decided to prefer second approach and propose following structure:

- 1. chapter: Introduction (VUZE, CZ)
- 2. chapter: WP2 summary review (AUA, GR) approx. 10-15 pages
- 3. chapter: WP3 summary review (MTT, FI) approx. 10-15 pages
- 4. chapter: WP4 summary review (VUZE, CZ) approx. 10-15 pages
- 5. chapter: WP5 summary review (MLURI,UK) approx. 10-15 pages
- 6. chapter: WP6 summary review (LAEI, LT) approx. 10-15 pages
- 7. chapter: WP1 synthesis (VUZE, CR) approx. 10-15 pages

Annex 1 - Examples of Table 1 "Overview of the current RD measure"

A) for LFA in the Czech Republic

a) for LFA in the Czec	b	с	d	e	f
	Is	Level of	payments		If aatagamy
Name of categories LFA	payment somehow differenti ated? Yes/No	EUR/ha (CZK/ha)	% in calculated level of payment	Delimitation criteria for LFA	If category existed previously, fill in payment level change
Mountain areas -HA (Art.50 para.2 (ES) č. 1698/2005)	Yes	157,13 (4 680)	105%	<ul> <li>altitute ≥ 600 m</li> <li>altitute ≥ 500 m and at the same time</li> </ul>	=
Mountain areas -HB (Art.50 para.2 (ES) č. 1698/2005)		134,77 (4 014)	90%	slope over 15 % on area larger than 50 % of whole urban area	=
Other than mountain areas-OA (Art.50 para.3 letter a) (ES) č. 1698/2005)	Yes	117,18 (3 490)	105%	(NUTS IV): • soil quality (bonita) <34 points (80 % average of CZ)	=
Other than mountain areas-OB (Art.50 para.3 letter a) (ES) č. 1698/2005)		94,68 (2 820)	85%	(NUTS III): • population density < 75 inhabitants / km2 (CZ average is 130) • ≥8 % workers in agriculture, (CZ average is 4,38 %)	=
Other than mountain areas affected by specific handicaps -S (Art.50 para.3 letter b) (ES) č. 1698/2005)	Yes	114,83 (3 420)	100%	• soil quality (bonita) <34 points or soil quality (bonita) ≥34 <38 and at the same time slope over 7° (12,3%) on area larger than 50 % of agricultural area	=
Other than mountain areas affected by specific handicaps-SX (Art.50para.3 letter b) (ES) č. 1698/2005)		91,86 (2 736)	85%	municipalities which due to an update of input data no longer meet the criteria for LFA	0

B) for AE measures in the Czech Republic

a	d	b	c	e	f	
		Level of payments			If category existed previously, fill in payment level change	
Name of AE sub- measures / schemes	Is payment somehow differentiated? Yes/No	EUR/ha (CZK/ha) % in calculated level of payment		Targeting – where is possible to enter into schemes		
A. Environment friendly	farming methods					
A1.Organic farming (OF)						
A1.1. OF - arable land	No	155,12 (4 620)	100%	whole country	<b>^</b>	
A1.2. OF - permanent crops (orchards, vineyards)	No	848,94 (25 285)	62%	whole country	<b>↑</b>	
A1.3. OF - vegetables						
A1.4. OF- herbs / spices						
A2. Integrated production						
A2.1. IP - vegetable	No	440,17 (13 110)	80%	whole country	0	
A2.2. IP – orchards						
A2.3. IP – vineyards						
B. Grassland maintenanc	e					
B1.						
B2.						
B3.						
B4.						
B5.						
B6. Bird habitats on grassland- corncrake's breeding site	No	183,32 (5 460)	100%	MIX – whole country, but only in areas designated as corncrake's site	<b>↑</b>	
B8. Species rich pastures	No	169,05 (5 035)	100%	MIX – whole country, but only in special protected territories (Natura 2000 areas and conservation zones of National Parks)	<b>^</b>	
Etc.				,		

Note: It is not necessary to use the same coding, but the structure should be clear and go into detail – have to reach the level of the contract.

#### Annex 2 – GAEC evidence

Issue	GAEC-standards 1)	yes (x)	Description of national GAEC-standards	voluntary obligation <sup>2)</sup> yes (x)	Description of national voluntary obligation (AE, Natura2000, forestry, LFA obligations)
	Minimum soil coverage				
Soil erosion	Minimum land management reflecting site- specific conditions				
	Retain terraces				
	Other standards?				
	Standards for crop rotations where applicable				
Soil organic matter	Arable stubble management				
	Other standards?				
Soil structure	Appropriate machinery use				
Son structure	Other standards?				
	Minimum livestock stocking rates or/and appropriate regimes				
M: 1 1 C	Protection of permanent pasture				
Minimum level of maintenance	Retention of landscape features				
mamtenance	Avoiding the encroachment of unwanted vegetation on agricultural land				
	Other standards?				
Other standards?			_		
		_			

<sup>1)</sup> According Council Regulation (EC) No 1782/2003, Article 5, Annex IV.

For example: GAEC-standard = min. 5% of arable land is covered during winter.

AE-obligation = min. 15% of arable land is covered during winter; the payment is calculated in relation to 10% of winter coverage which is going over

GAEC standards.

Or

GAEC-standard for protection of permanent pasture is missing.

While AE-obligations for protection of permanent pastures exist there (for example the maximum level for nitrate fertilizers usage is set).

<sup>2)</sup> Is there any obligation similar as GAEC-standard for which it is possible to get for example agri-environment payment?

#### Annex 3 – examples of payment calculation process (source: RDP 2004-2006 Hungary)

Please use this example as preliminary form which is necessary to complete more detail information.

#### Integrated crop management on arable land

#### A) Relevant commitments (management prescriptions)

- 2. preparation of full soil sample analysis by an accredited soil laboratory when entering into the scheme and in the last year of the commitment
- 3. preparation of nutrient management plan based on soil analysis results
- 4. N fertilizer rate cannot exceed 170 kg/ha/year
- 5. in case of arable crops use of highly toxic pesticides are prohibited
- 6. in case of vegetables, plant protection products can be used which are classified as "permitted without restrictions" ("green") or "permitted with moderate restrictions" ("yellow"), listed in NRDP regulation, ("restricted" (red) active agents is allowed only when epidemic or gradation is to be prevented based on the prior approval and permit of the Plant and Soil Conservation Service)
- 7. plant varieties with resistance/tolerance against at least one major disease must be selected
- 8. use of pest forecasting system is obligatory

#### B) Management changes (agronomic assumptions)

- 1. cost of soil analysis,
- 2. cost of nutrient management plan
- 3. 15% income loss due to limited nutrient supply
- 4. higher cost of environmentally friendly pesticides
- 5. same as above
- 6. extra cost of resistant/tolerant varieties of seeds
- 7. extra cost of pest forecasting system application

C) Table of process of payment calculation

Items	Losses	<b>Gains</b> [Euro/ha]	
	[Euro/ha]		
Extra income			
subtotal			
Income loss			
15% due to limited nutrient use	72		
subtotal	72		
Cost saved			
conventional pesticide cost		104	
cost of conventional seed		48	
subtotal		152	
Extra cost			
Env. friendly pesticides	125		
complex soil analyses in every 5 y	8		
use of pest forecasting system	19		
cost of resistant seed	58		
nutrient management plan	4		
subtotal	213		
total losses/gains	285	152	
income forgone			
Payment rate	133		

#### Organic grassland management scheme

#### A) Relevant commitments (management prescriptions)

- 1. comply with the rules of the EU Council Regulation 2092/91 on organic production
- 2. in case of grazed grassland
  - i. grazing livestock allowed: cattle, sheep, goat, buffalo, horse, deer, red deer, and donkey
  - ii. livestock density must be kept between the following values:

grassland habitat types	minimum and maximum livestock density (LU/ha)
sandy grasslands	0,2-0,5
saline pastures and grasslands	0,2-0,5
hill dry pastures	0,2-1,0
dry grasslands with scattered trees	0,2-1,0
wet meadows	0,2-1,0
floodplain grasslands	0,2-1,0

- 3. shepherded or rotational grazing must be applied (in one section the number of grazing days must respect grass yield but must not exceed 10 days)
- 4. no pesticide, over sowing, chemical weed control, application of chemical fertilizer and irrigation are allowed
- 5. in the case of mowed grassland
  - a. during the mowing (cutting) of the meadows/pastures game deterring chains and nature (game)conservation cutting methods should be applied (cutting from the centre of the field outwards, field edges being cut last)
  - b. mowing is prohibited during wet periods when it can cause damage to the habitat

#### B) Management changes (agronomic assumptions)

- 1. cost of organic inspection (80% is compensated)
- 2. no agronomic effect (at present livestock density rarely reaches the upper limit, restriction is for avoiding eventual overgrazing)
- 3. cost of shepherding is calculated at the rate of 3 hours/hectare/year
- 4. due to no nutrient supply the hay production is less by 30% on average
- 5. a) 10% extra cost on cutting, b) 5% loss of hay value

$\alpha$	TC 11 C		٠ ,	1 1 4
	Lable of r	process of	r navment	calculation

Items	Losses	Gains	Data sources
	[Euro/ha]	[Euro/ha]	
Extra income			
Subtotal			
Income loss			
30% Hay yield loss due to lack of fertilization	80		
5% income loss due to limited mowing	13		
Subtotal	93		
Cost saved			
Fertilization cost		47	
Subtotal		47	
Extra costs			
80% of organic inspection cost	1		
10% extra cost on cutting	3		
cost of shepherding (3 hours/ha/year)	6		
Subtotal	10		
TOTAL losses/gains	104	47	
Income forgone			
Payment rate	59		

Annex 4 -	- examples	of	possible	tables	for	indicator
IMILICAT	CAMILIPICS	O1	possible	unics	101	marcator

	_
AFM – e	example
7 11 1VI C	Authore

	2004	2005	2006
UAA			
Area of area in AEM			
Number of holdings			
Number of holdings in AEM			
Support (expenditure) for RDP – total			
Support (expenditure) for AEM			

In addition uptake of 5 the most significant agri-environment measures - for year ...2005........

We would like to get data for year 2005 as least, since data for 2006 may not be already evaluated.

Sub-measure	Amount of money	Share in tota	al Area under the	Share in the total area
	paid out within sub-	AEM suppor	rt sub-measure (ha)	within AEM (%)
	measure (€)	(%)		
1				
2				
3				
4				
5				
Others				
Total				

Note: It is necessary to specify in which detail we would like to go when the most popular sub-measures will be selected (organic farming x arable land within organic farming)?!

I DA	
LFA - example	

	2004	2005	2006
UAA			
Area of agricultural land in LFA			
– mountain			
- other			
- specific			
Number of holdings			
Number of holdings in LFA			
- mountain			
- other			
- specific			
Disbursed support in RDP – total			
Disbursed support in LFA			
- mountain			
- other			
- specific			

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