AGRIGRID

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

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8.1.B.1.1 Modernisation and sustainability of agriculture and forestry, including their multifunctional role in order to ensure the sustainable development and promotion of rural areas

Task 14 New methods for calculating premiums in the rural development measures

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Report D6
Methodological grid for Natura 2000 payments

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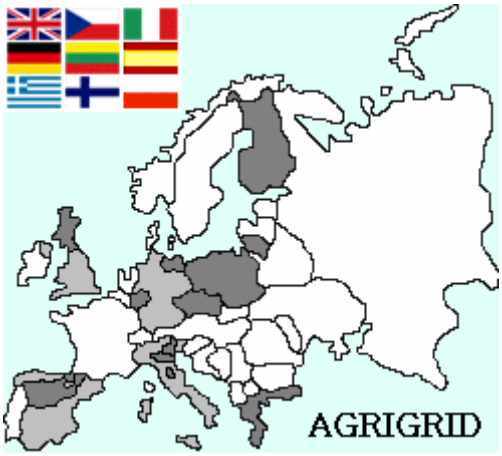

Executive summary and recommendations for policy makers

The purpose of the Natura 2000 payments is to help address specific disadvantages resulting from the implementation of Directives 79/409/EEC and 92/43/EEC in order to contribute to the effective management of Natura 2000 sites. The payments compensate for costs incurred and income foregone resulting from the restrictions on the use of agricultural land or forests and other wooded land implemented in Natura 2000 areas.

Considering the wide range of commitments and calculation approaches used across Member States, the development of harmonised common guidelines for the payment calculations is considered as necessary. Elaboration of the methodological framework for the payment calculation for Natura 2000 payments was the objective of Work-package 4 of the AGRIGRID project. The aim of this report is to describe the methodological grid developed for Natura 2000 payments and show its practical application.

The Natura 2000 payment grid was developed on the basis of a logic framework which defines the main steps of the process of payment calculation and these include: identification of commitments and relevant practices; identification of baseline requirements; identification of cost / revenue components; payment differentiation; calculation of income foregone and additional costs; a specification of final payment rates.

Identification of commitments and relevant practices
The basis for Natura 2000 payments is compensation for practices resulting from accepted commitments. In general, most of the applied commitments in Natura 2000 areas have the form of ***stopping or restricting particular activities*** or the ***maintenance of the current situation***. Moreover, Natura 2000 commitments are not often specified in more detailed practices as is usual in agri-environmental measures and settled commitment is at the same time applied practice. Among the most frequent commitments / practices applied within the 213 measure are: the limitation of fertilization, restriction or exclusion of grazing, restriction of time and frequency of mowing, prohibition of using particular shares of grassland, restriction of drainage or the ploughing of meadows and the renunciation of particular activities on agricultural land. Within the 224 measure they are: the prohibition or temporal restriction of final felling, the prohibition of final felling by clear cutting, permanent exclusion from felling, the maintenance of old- and deadwood, the preservation of particular tree species composition and other country-specific commitments.

Identification of baseline requirements
Payment calculation is not possible without the identification of the baseline requirements since only commitments going beyond the minimum mandatory requirements can be compensated for. Within the reviewed payment calculations, the baselines are represented mostly by ***common practice*** and by the requirements of ***additional national legislation*** which applicants have to meet in the Natura 2000 areas. The current cross-compliance requirements relate to agricultural activities and are not applied for forestry measures in most of the investigated countries and regions. In fact, there is little to no evidence available from the review that existing baseline requirements are directly considered in the payment calculations.

Identification of cost and revenue components
Despite the large variation in calculation approaches, the proposed Natura 2000 payments are always generated from basic components as income foregone and additional costs. In the case of the 213 measure, the income foregone is determined mostly on the basis of the difference

in Gross Margin. However, other approaches such as Net Margin difference, Farm Net Value Added difference or replacement costs of yield reductions are used as well. In the case of the 224 measure, the loss of forestry income is the most frequently used item in the income foregone calculation. The next identified item is the loss of interest income and forestry output decrease. A greater similarity exists with the determination of additional costs where the increase in feeding costs, machinery cost and labour costs dominate.

Concerning the determination of costs and revenue components, the review has shown that both calculation approaches (i.e. Balance sheet (FADN) and Practices approach) are applied and the latter is used in cases where cost and revenue components linked to specific crop / forest type or particular practice are needed.

Payment differentiation
Compared to other investigated rural development (RD) measures, the Natura 2000 payments are less differentiated and mostly for a particular commitment there exists one payment level per hectare. Overall the differentiation of Natura 2000 payments was found in three investigated countries: DE_{NRW}, ES_N and GR and the main factor of the differentiation is ***various management restrictions*** applied in the Natura 2000 areas. If the level of restrictions correspond to the different degrees of protection status of considered areas, then ***administrative land division*** can be used as the differentiation criterion as well (as in the case of DE_{NRW}). In addition, differentiation according to ***type of crops*** is used in ES_N and according to ***type of woodland, specific tree species and woodland function*** in GR.

Calculation of income foregone and additional costs
The Natura 2000 payments are ***usually defined as flat-rate payments implemented horizontally***, often ***based on aggregated items*** only, without any detailed information of how these items were calculated. The final payment rate can be based on one single requirement or is equal to the sum of rates relating to several requirements of one commitment or is equal to an estimated value of a selected indicator indirectly related to required practices.

The reviewed countries and regions use many different methods to calculate Natura 2000 payments and these methods were summarized into three groups:

- compensation due to the limitation of provided practice and ***the payments are based on the difference of data in costs and revenues*** of a farm located inside and one outside Natura 2000 areas;
- compensation due to stopping a provided practice and ***the payments are equal to the income foregone or to additional costs resulting from prohibited activities***;
- compensation due to the requirement to maintain a particular practice or provide an additional practice and ***the payments are equal to the additional costs of a required activity***.

Also the ***real cost approach***, when actual costs could be compensated for, was used in the Natura 2000 payment calculation in one case instead of the general ***standard cost approach***.

Specification of final payment rates
The provision for payments under the minimum limit or exceeding the maximum limits laid down in the RDR Annex is not common within the Natura 2000 payments. Payment levels proposed within the 213 measure range from EUR30 to 188 per hectare with the most common amount around EUR40 per hectare. With the 224 measure, the payment levels varied over the full range from the allowed minimum (EUR40) to the maximum (EUR200) payment

per hectare with the exception of Greece where payments up to EUR300 per hectare are proposed in specific justified circumstances. Additional payment limits are applied only in one case which is Navarra (Spain), where the maximum amount per beneficiary is limited to EUR3000 for the 213 measure.

Furthermore, in two countries (DE_{NRW} and IT_{UMB}) the proposed payment levels differed from the calculated amount. The decrease in proposed payment levels was caused by budget restrictions in the 1st case and by the necessity to keep to upper payment limits set in the RDR in the 2nd case.

Problems encountered and future tasks
The review of the payment calculations of Natura 2000 measures identified a number of different issues which should be taken into account in future calculations which include:

- the lack of suitable, up-to-date and regional data
- limitations of the standard cost approaches
- constraints resulting from RDR requirements
- lack of methodological experience
- the large variation and low transparency of payment calculations etc.

These problems and issues can be given as the reason that many Member States have decided to implement Natura 2000 payments as a scheme covering a fairly large geographical area (whole Natura 2000 areas) with undifferentiated payment rates. In addition, a lack of data about the efficiency and the gains of more differentiated approaches and little experience in testing such issues hinder the implementation of more differentiated payments.

In order to address these issues there is a need for long-term research which should help in:

- increasing the availability of suitable data and different data sources
- providing increased knowledge in payment component assessment
- assisting innovation and the use more variations of payment calculation methods;
- ensuring the harmonization of terminology.

Among other ideas which could help in the learning process, increasing the transparency of payment calculations and overcoming the issues mentioned above are:

- the provision of more publications on the best practice concerning payment calculations in the Member States
- the imposition of a requirement to publish the processes of payment calculations in rural development programmes
- the implementation of a general form of standard description of the RD measure including the linkage to payment calculation
- the provision of basic recommendations about when and what type of calculation method could be used with different data availability conditions or what type of method is the most suitable and sustainable if the required data is not provided
- support for the improvement of methodological experience among the staff responsible for payment calculation and RD measure design.

The application of the methodological grids for the calculation of payments in selected RD measures developed within the AGRIGRID project could be the 1st step in this process.

In the end it is necessary to point out that the purpose of the methodological grid developed is not to define common detailed rules about how to calculate payments for particular RD

measures (due to wide range of factors influenced the determination of final payment levels) but to provide a process (i.e. grid) including the particular steps which are necessary during Natura 2000 payment calculation. The application and future improvement of such a harmonized grid can help to consolidate the process in payment calculation across regions or countries and also can reduce negotiation time between Member States and the Commission.

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List of abbreviations

AEM	Agri-Environmental Measure
AFI	Average Felling Increment
C-C	Cross-Compliance
CZK	Czech National Currency - Czech Crown
EAFRD	European Agricultural Fund for Rural Development
EC	European Council
EEC	European Economic Community
EU	European Union
EUR	European Union Currency - Euro
FADN	Farm Accountancy Data Network
FEM	Forest-Environmental Measure
GAEC	Good Agricultural and Environmental Conditions
GM	Gross Margin
Ha	Hectare
IACS	Integrated Administrative and Control System
Kg	kilogram (weight unit)
MJ NEL	Mega joule Net-Energy-Lactation (energy unit)
MoA	Ministry of Agriculture
MoE	Ministry of Environment
FNVA	Farm Net Value Added
NM	Net Margin
RD	Rural Development
RDP	Rural Development Programme
RDR	Rural Development Regulation
SGM	Standard Gross Margin
SMR	Statutory Management Requirements
T	ton (weight unit)
UAA	Utilized Agricultural Area
UK	United Kingdom

Partner countries/regions

CZ	Czech Republic
DENRW	Germany - North Rhine-Westphalia
ESN	Spain - Navarra region
FI	Finland
GR	Greece
ITUMB	Italy - Umbria region
LT	Lithuania
PL	Poland
SCO	Scotland

1. Introduction

The report summarises the outcomes of Work Package 4 which was focused on elaboration of the methodological framework for the payment calculation for Natura 2000 payments with a view to harmonizing the methods of payment calculation across European Union (EU) Member States. The aim of this report is to describe the developed methodological grid for calculating the Natura 2000 payments and show its practical application.

The overall objectives of Natura 2000 support is to ensure conformity with the nature protection requirements in the Natura 2000 network areas, to maintain agricultural / forestry activity in those areas and to contribute to coping with handicaps, resulting from the implementation of Council Directive 79/409/EEC on the conservation of wild birds (the Birds Directive) and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive), in order to ensure the efficient management of Natura 2000 areas. In most countries, the Natura 2000 network relies heavily on existing areas under natural protection; however, it also involves hitherto unprotected areas. Farmers whose lands are located in Natura 2000 areas must meet the requirements stipulated by the national legislation focused on landscape and nature protection (*e.g. the Species and Biotopes' Protection Law and the Law on Protected Natural Areas in LT, the Act on the Protection of Nature and Landscapes in CZ, the Law for the Protection of Ecosystems and the Development of Landscapes in DE*) as well as the requirements stipulated by the natural management plans proceeding from the Birds and the Habitats Directives.

The Natura 2000 payments are new measures introduced through the current Rural Development Regulation (RDR) (Regulation EC No 1698/2005) for the period 2007 – 2013. According to the RDR, Natura 2000 payments include two measures: Natura 2000 payments on agricultural land (213) and Natura 2000 payments on forestry land (224). Their different purposes lead to different management requirements to preserve natural values and therefore also to different support payments. In the case of the measure 213, the methodology of determining the rate of compensation is similar to the agri-environmental measures (AEMs) and the measure 224 is closer rather to the forest-environmental measures (FEMs).

The aim of Work Package 4 was to summarise the different approaches to Natura 2000 payment calculations and, to conform with the overall AGRIGRID project aim, develop one methodological grid for calculating Natura 2000 payments applicable across Member States. As a first step, a review of Natura 2000 payments was provided based on available data of the following partner countries: Scotland (SCO), Germany (DE), Greece (GR), Czech Republic (CZ), Lithuania (LT), Finland (FI), Italy (IT), Spain (ES) and Poland (PL). Since some partner countries, e.g. Germany and Italy, implement their rural development programmes (RDPs) at regional level, specific regions were chosen in these countries, i.e. North Rhine-Westphalia in Germany (DE_{NRW}), region Navarra region in Spain (ES_N) and region Umbria in Italy (IT_{UMB}). The basic overview of the implementation of Natura 2000 payments (213, 224) in the RDPs of the partner countries is recorded in Table 1-1. Based on the comprehensive review preliminary payment calculation grids, containing particular parts of payment calculations such as baseline requirements, payment differentiation and the calculation of cost and revenue components, were developed. The revision and synthesis of these national grids into one methodological grid for calculating the Natura 2000 payments, applicable EU-wide, represented the third and final step.

Table 1-1: Implementation of Natura 2000 payments by partner country / region

Code	CZ	DE_{NRW}	ES_N	FI	GR	IT_{UMB}	LT	PL	SCO
Natura 2000 on agricultural land									
213	✓	✓	✓	-	-	(-)	✓	-	-
Natura 2000 on forestry land									
224	✓	✓	-	-	✓	(-)	✓	-	-

✓ = implemented, - = not implemented, (-) = designed, but not implemented

Natura 2000 payments are not implemented at all in four of nine partner countries (FI, IT_{UMB}, PL and SCO). In addition, measure 213 is excluded in Greece and measure 224 does not exist in Navarra (Spain). These countries prefer to support the preservation of Natura 2000 areas mainly through agri- and forest-environment payments. Biodiversity in Natura 2000 agricultural areas is enhanced through AEMs which are either special for Natura 2000 areas (e.g. special package containing 10 submeasures focused on Natura 2000 areas in PL) or provide higher scores for applications on Natura sites than for other areas. Biodiversity of forests is promoted by both national funds outside RDPs (e.g. Biodiversity Action Plans, UK Forestry Standards) and forest environment payments within RDPs. In Poland, measure 224 is not implemented because forests are generally owned by the state and as such are subject to specific laws both in terms of management and environmental protection. In the case of Umbria (Italy), both measures (213, 224) were designed but excluded during the final RDP preparation. In spite of this, data obtained about payment calculations was used within the development of the methodological grid in this report.

All the investigated countries and regions, where these measures exist, implemented Natura 2000 payments horizontally, except CZ and ES_N in the case of Natura 2000 on agricultural land. The Czech Republic provided support only to farmers in Natura 2000 areas and at the same time in the first zones of National Parks and Protected Landscape Areas. In Navarra (Spain), the 213 measure is targeted only towards specific Natura 2000 sites.

Payment levels proposed within the 213 measure range from EUR30 to 188 per hectare with the most common amount around EUR40 per hectare. Both extreme levels occurred in Navarra (Spain). With the 224 measure, the payment levels varied between the full range of the allowed minimum (EUR40) and maximum (EUR200) payment per hectare with the exception of Greece where the RD Management Authority proposed payments up to EUR300 per hectare in specific justified circumstances. Above this, the additional payment limits are applied only in one case. It is in Navarra (Spain) where the maximum amount per beneficiary with a limit of EUR3000 is implemented within the 213 measure.

The outline of this report corresponds to the proposed step-by-step approach describing the whole process of Natura 2000 payment calculations including: an identification of applied commitments, baseline and cost / revenue components; a specification of payment differentiation; an explanation of the actual calculation process and a determination of applied RDR or other limits. Consequently a description of problems encountered during payment calculations and final conclusions and policy recommendation is added. In addition, examples of application of the developed Natura 2000 grid are provided in the Annex to this document. The application of the grid is presented in step-by-step spreadsheets for two selected countries per measure (i.e. CZ and DE_{NRW} for the 213 measure and CZ and LT for the 224 measure).

2. Methodology

The purpose of this chapter is to describe the logic framework of the Natura 2000 grid development and the step-by-step approach used in the examples of application of the developed Natura 2000 grid presented in the Annex to this report.

2.1 Logic framework

The aim of the logic framework is to simplify and harmonize payment calculations covering the approaches applied in all investigated countries. Based on the general logic framework (designed by WP8) a measure-specific framework for the design of the Natura 2000 payment grid was developed and is presented in Figure 2.1-1.

Although the research has confirmed a large variation in commitments and consequently in the calculation approaches used, which depend on natural and other country-specific conditions, the proposed Natura 2000 payments are always generated from the basic components as income foregone and additional costs. In the case of the 213 measure, the income foregone is determined mostly on the basis of the difference in Gross Margin (GM) eventually Standard Gross Margin (SGM). However, other approaches such as Net Margin (NM) difference, Farm Net Value Added (FNVA) difference or replacement costs of yield reductions are used as well. In the case of the 224 measure, the loss of forestry income is the most frequently used item in the income foregone calculation. The next identified item is the loss of interest income and forestry output decrease. A greater similarity exists with the determination of additional costs where the increase in feeding costs, machinery cost and labour costs dominate. However, the specific cost and revenue components are not shown in the developed methodological grid as these are country-specific and the framework visualises the logic of the payment calculation at a more generic level.

All the above mentioned components and consequently the final calculated payment rates are influenced by applied payment differentiation. In general, Natura 2000 payments are less differentiated than other investigated RD measures. Within the reviewed countries and regions, four differentiation categories of Natura 2000 payments were identified, according to: Specific practices, Administrative land division, Type of crop or Woodland and Trees. However, other differentiation categories can be implemented and even some potential additional differentiation categories were identified within the reviewed countries / regions. Since the final payment rate is often calculated as the average of values in different situations (e.g. different land fertility, type of farming or tree composition of forests), then these situations could be understand as possible additional categories.

Before the calculated amount for compensation can be proposed, the payment levels should be checked with the limits laid down in the Annex of RDR. These newly adjusted payment levels can be further modified by additional limits mostly based on political decisions (e.g. maximum amount of subsidy per farm / beneficiary, modulation of the payment according to farm size etc.). Subsequently these payment levels are proposed in RDP.

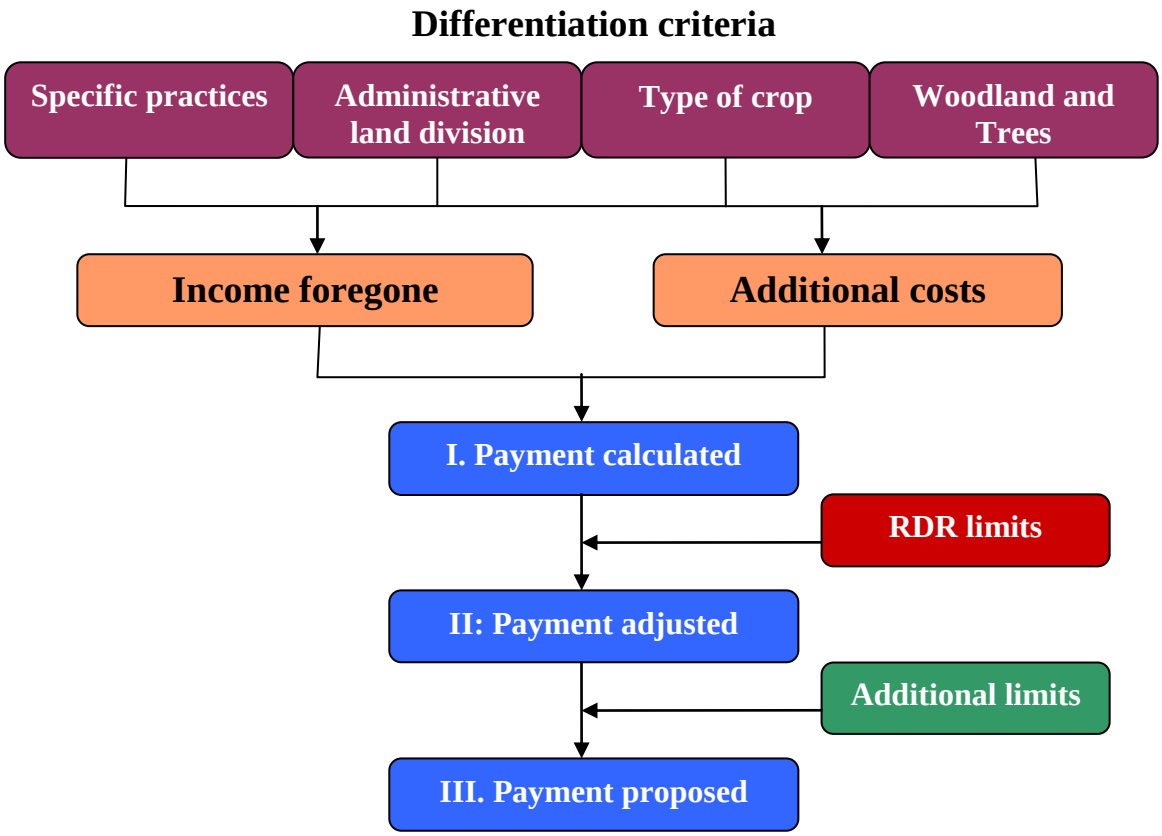

Figure 2.1-1: Logic framework for the design of the Natura 2000 payment grid

2.2 Step-by-step approach

The step-by-step approach is based on the logic framework and was designed to simplify the presentation of the application of the measure-specific grids developed (see Figure 2.2-1). The application of the Natura 2000 grid with the aid of the step-by-step approach is provided as an example for two selected countries / regions per measure (Table 2.2-1) and the detail can be seen in the Annex.

The Natura 2000 payment calculation process can be broken down into six steps:

- Selection of the approach for payment calculation
- Creation of the linkage relationship between measure commitments and baselines and identification of cost / revenue components
- Decision on payment differentiation
- Calculation of income foregone and additional costs based on identified cost / revenue components
- Specification of RDR payment limits
- Specification of final proposed payment rates

In the first step, one of two possible approaches determining the list of cost / revenue components has to be selected. The first "Balance sheet approach" uses cost / revenue components at the whole farm level and its components are organized in the same hierarchy as in the FADN database. The second "Practices approach" had to be developed additionally since not all payment calculations are based on components in accord with FADN. This approach uses cost / revenue components arising from particular practices undertaken to fulfil

RD commitments. An example may be the calculation of payments based on the compensation for additional costs resulting from a particular activity (e.g. sowing / ploughing of catch crops, mowing of mountain meadows or wetlands, fertilization with manure etc.). In addition, the Balance sheet approach is understood as a fixed list of existed components while the Practices approach could be modified and extended according to need. The second approach is also more suitable for Natura 2000 measures.

The second step represents the creation of a linkage table which combines a measure commitment, a related baseline and a set of revenue and cost components. At this stage, only the structure of the grid calculation is defined and no values of revenues and costs are specified. The identification of relevant baseline requirements for each RD commitments is necessary due to the RDR, which states that RD payments can compensate only commitments going beyond the minimum mandatory requirements. Moreover, the difference between the baseline and the additional commitments has to be properly described in the process of payment calculation within the new RDPs.

Next the decision about how the payment is to be differentiated should be made. In this third step the differentiation categories, sub-categories and elements can also be specified, covering the existence of multiple differentiation levels (e.g. differentiation according to specific designated areas as the 1st level and within these areas according to particular crops or type of beneficiaries as the 2nd level). Based on specified differentiation categories, separate processes of payment calculation per each differentiation situation can be provided.

After the configuration of the particular revenue and cost component in the second step and their differentiation in the third step, values for each component can be determined. There are two data-entry options: to specify value for RD commitment and for baseline with calculated difference for the additional commitment or to specify the value of difference directly if no data for the baseline and RD commitment are available. Since there could be different levels of detail of the calculation process across countries (mainly dependent on data availability) three levels of detail are designed in the grid within the calculation of cost/revenue components.

The fifth step is the adjustment of calculated payment rates by the RDR payment limits or additional limits is provided. In the case of Natura 2000 payments on agricultural land, the RDR limit determines the maximum amount of support up to EUR200/ha (EUR500/ha for a period not exceeding five years). In the case of Natura 2000 payments on forestry land, the minimum (EUR40/ha) and maximum (EUR200/ha) amounts are laid down in the RDR.

The sixth and final step of the Natura 2000 grid presents an overview of the total calculated payments for each of the selected differentiation categories / scenarios and after all (RDR or other limits) adjustments have been made.

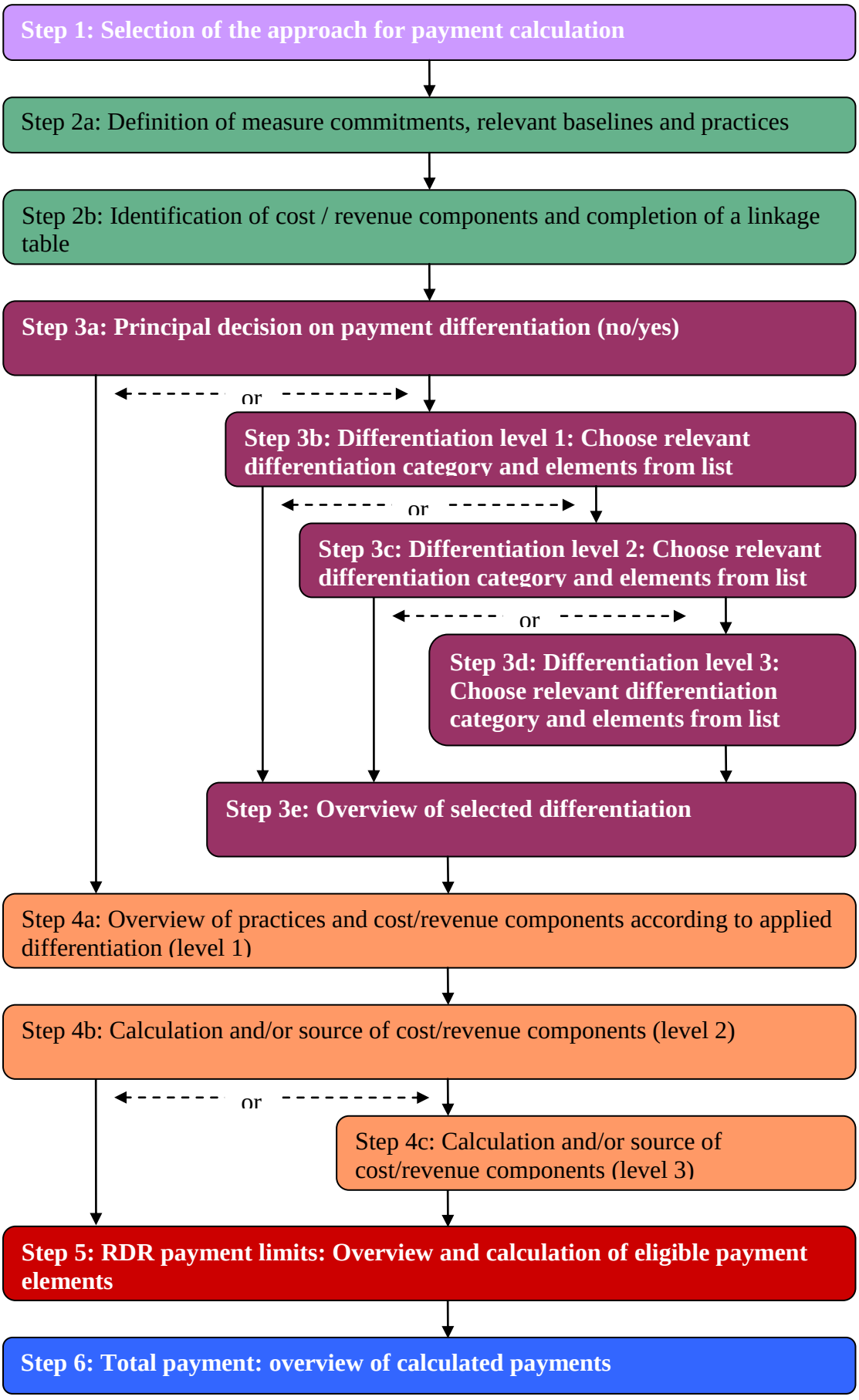

Figure 2.2-1: The step-by-step approach for Natura 2000 payments

Table 2.2-1: Selected examples of the application of the Natura 2000 grid

Measure	**Selected examples**	**Country/Region**
213	Natura 2000 on agricultural land (Application of fertilisers or farm manure should be avoided)	CZ
213	Natura 2000 on agricultural land (Obligation to keep principles prohibiting any deterioration of the current state of biotope qualities for continuing cultivation)	DE_{NRW}
224	Natura 2000 on forestry land (Preservation of the particular composition of tree species)	CZ
224	Natura 2000 on forestry land (Prohibition / temporal restriction of final felling; Prohibition / restriction of final felling by clear cutting; Permanent exclusion from felling; Maintenance of drying trees / old and deadwood)	LT

3. Baseline, commitments and identification of cost / revenue components

This chapter provides an explanation of how the baselines, RD commitments and relevant practices and finally the cost and revenue components have been identified including basic overviews and examples.

3.1 Definition of baselines

The necessity to define baselines is set by the methodology of payment calculation rules stated in RDR. Although Natura 2000 payments should compensate the additional costs and income foregone resulting from restrictions due to the implementation of Directives 79/409/EEC and 92/43/EEC, the general requirement that proposed payments shall cover only those commitments going beyond the relevant mandatory requirements is valid as well. These relevant mandatory requirements are understood as a baseline in this report and can have two forms: common practice and a baseline based on one or more regulations. The term "common practice" represents typical practices in farming or management usually used as the reference level in calculation. The regulatory baselines contain Statutory Management Requirements (SMRs), Good Agricultural and Environmental Conditions (GAEC) and Additional Baselines resulting from national / regional legislations.

The review has shown that Natura 2000 payments are mainly based on specific management requirements going beyond cross-compliance (C-C) restrictions and national legislation regulating protected areas and can be paid out in full. Simultaneously, Natura 2000 commitments and required practices are often defined very generally (e.g. to keep the management plan for Natura 2000 sites), thereby a weak linkage exists between commitments/practices and payment calculation and baselines can also be defined only in a general form and as such do not affect directly the payment calculation. In addition, the current C-C requirements relate to agricultural activities and are not applied for forestry measures (i.e. measure 224) in most of the investigated countries and regions. In principle, however, C-C is also relevant for forest areas and thus in the future, once the exact requirements have been defined in each country, some of the GAEC and SMR could apply for forestry measures. Moreover, there are examples (outside the geographic representation of this project) where GAEC requirements directly address aspects such as tree felling and tree preservation.

Within the reviewed countries and regions, the baselines are currently based mostly on common practice, mainly in the case of the 213 measure (e.g. comparison of required form of farming inside and typical farming outside the Natura 2000 areas) and additional national legislation (e.g. a number of national laws and regulations) which applicants have to take into account for forestry measures (see Table 3.1-1). Examples include UK forestry standards containing basic requirements not possible to be paid out within RD measures or federal state forestry law in Germany defines proper forest management including activities not allowed in forests. Similarly in CZ, all forests should have designed a Forest Management Plan (based on forestry law) updated every 5 years which defines the current arrangement of tree species, the extent of felling allowed, the necessity of new planting, the minimum share of ameliorative and reinforcing wood species etc. However, while Natura 2000 measures are designed considering common practices and standards or other baselines requirements, there is little to no evidence available from the review that existing baseline requirements have been directly

considered in payment calculations. In most investigated RDPs, the baseline requirements for Natura 2000 payments have not been clearly defined at all.

Table 3.1-1: Examples of linkage tables

	Type of baseline	Description	Baseline practice	RD commitment
Natura 2000 payments on agricultural land				
CZ	Additional baseline (common practice)	National statistic (consumption of mineral fertilizers per ha of agricultural land)	The typical / general fertilization level = 80 kg N/ha (mineral)	Application of fertilisers or farm manure should be avoided. In the case of pastures, at most 30 kg N/ha can be supplied annually by grazing livestock.
DE_{NRW}	GAEC	Rules for the maintenance of grassland	On permanent grasslands growing vegetation has to be cut and mulched yearly, or mowed and removed from the land every second year. These measures may not be undertaken between 1st April and 30th of June	Obligation to keep principles prohibiting any deterioration of the current state of biotope qualities for continuing cultivation.
	Additional baseline (common practice)	Typical yield (based on test areas of grassland)	The average yield of grassland (48000 MJ NEL/ha)	
Natura 2000 payments on forestry land				
CZ	Additional baseline (national legislation)	Act No. 289/1995 Coll. on forests	Standard cultivation requirements based on Forest management plan resulting from the Act	Applicant should keep the current structure of the forest and observe the species composition recommended for regeneration.
LT	Additional baseline (national legislation)	Law of the Forests No. I-671 (approved by the Seimas of the Republic of Lithuania, 22/11/1995).	Standard cultivation requirements based on the Forest Law	The final felling of forests is forbidden in a stand that has reached the age of final felling applied for the IV forest group, or the final felling of forests should be postponed.
				The final forest cutting operations have to be carried out in non-clear cutting manner.
				An additional number of living trees has to be preserved and left in clear cutting areas.
				The cutting of drying trees or dead wood is forbidden or restricted in forest stands 20 years old and more.

3.2 Definition of commitments and relevant practices

The basis of Natura 2000 payments is the compensation for practices (activities) resulting from RD commitments accepted within the implementation of the Birds and the Habitats Directives. In general, most of the applied commitments / practices in Natura 2000 areas have the form of ***stopping or restricting particular activities*** (e.g. prohibition / restriction of grassland usage, final felling in forest, or renunciation of chemical synthetic pesticides etc.) or the ***maintenance of the current situation*** (e.g. maintenance of specific biotopes, old trees, particular tree species composition etc.). Moreover, Natura 2000 commitments are not often specified in more detailed practices as is usual in AEMs and settled commitment is at the same time applied practice (e.g. commitments as "Prohibition / limitation of using fertilizers" or "Prohibition / restriction of final felling by clear cutting" represent directly applied practices).

As was mentioned above, the Natura 2000 commitments result either from national legislation focused on landscape and nature protection or the natural management plans proceeding from the Birds and the Habitats Directives. From this point of view one general commitment for the Natura 2000 measures is defined and can be stated as "*An obligation to keep the particular restrictions set in the management plan for N2000 sites or in the statutes of protected areas to which the N2000 site belongs*". Consequently the particular restrictions create practices which are the basis of Natura 2000 payments. However it is necessary to mention that not all required practices are covered as some of them belong to traditional / typical farming techniques and have become baselines (e.g. the requirement to graze once or mow at least twice a year in fixed deadline grassland in CZ or the requirement to prepare a forest management plan which is based on Special Environmental Assessment (GR) or certified by a professional forest manager (CZ)).

A list of the most frequent commitments and practices identified across the investigated countries / regions that are compensated by Natura 2000 payments are summarised in Table 3.2-1 for the 213 measure and in Table 3.2-2 for the 224 measure.

Table 3.2-1: List of commitments and practices – Natura 2000 payments on agricultural land

List of Natura 2000 commitments (213)	
Obligation to keep the particular restrictions set in the management plan for N2000 sites or in the statutes of protected areas to which the N2000 site belongs	
in more detail:	
Application of fertilizers or farm manure should be avoided (based on the Act protecting nature and landscape)	CZ
Obligation to keep principles prohibiting any deterioration of the current state of biotope qualities for continuing cultivation (based on landscape law)	DE_{NRW}
Compliance with grazing rules established in the grazing resource plan for protection of habitats	ES_N
Compliance with limitations established by Authorities for conserving flora and fauna of sites	ES_N
Obligation to enforce site specific restrictions given in the statutes of protected areas	LT
List of Natura 2000 practices (213)	
Prohibition / limitation of the use of fertilizers	CZ, LT
Restriction / exclusion of grazing	ES_N, LT
Restriction on timing and frequency of mowing meadows	LT
Prohibition of using particular share of grassland	ES_N,IT_{UMB}
Restriction of drainage	DE_{NRW}, LT
Restriction of ploughing meadows or re-sowing them	DE_{NRW}, LT
Renunciation of particular activities on agricultural land	ES_N, DE_{NRW}
Others (country specific)	

Description of practices within the 213 measure:

- *The prohibition or limitation of the use of fertilizers* and eventually other inputs is a basis for payment in CZ and LT.
- *The restriction of grazing* in the form of a limitation of stocking density is applied in Navarra (Spain) both for steppe areas and for mountain areas. In the case of steppe areas, the stocking limits have to be observed in certain areas at certain times and the flock size has to be reduced up to 700 heads at certain times. In the case of mountain areas, the stocking density has to be maintained from 0.1 to 1.4 LU/ha depending on the type of pasture and the grazing plan. The maximum livestock density of 1 LU/ha is also applied in Lithuania.
- *Restrictions on timing and frequency of mowing meadows* are compensated in Lithuania, where it is not permitted to mow meadows before 15th of June.
- *The limitation of grazing*, other than in the form of stocking density prescription, is applied in ES_N and IT_{UMB}. In Navarra (Spain) grazing is prohibited in certain areas at certain time in compliance with limitations established by the Authorities. In Umbria (Italy) prohibition of the use of 20% of pastures under contract for grazing cattle is applied to prevent the carrying out of complete scrub clearing and stone removal.
- Other practices applied in more than one investigated country are: *the renunciation of applying additional drainage methods* and *the restrictions on the ploughing of meadows or re-sowing them* used in DE_{NRW} and LT.
- The last category of practices covers *various activities on agricultural land which should be limited* (e.g. renunciation of afforestation (DE_{NRW}), preserving certain elements of value for flora and fauna (ES_N), etc.).

Table 3.2-2: List of commitments and practices – Natura 2000 payments on forestry land

List of Natura 2000 commitments (224)	
Obligation to keep the particular restrictions set in the management plan for N2000 sites or in the statutes of protected areas to which the N2000 site belongs	
in more detail:	
Prohibition / temporary restriction of final felling	LT, GR
Prohibition / restriction of final felling by clear cutting	LT, DE_{NRW}
Permanent exclusion from felling	LT, IT_{UMB}
Maintenance of dry trees / old- and deadwood	LT, DE_{NRW},GR
Preservation of the particular tree species composition	CZ, DE_{NRW}
Maintenance / development of the specific biotope	DE_{NRW}
Removal of undesirable regeneration / tree species	DE_{NRW}
Prohibition of particular activities in forests	IT_{UMB},GR
Keeping some part of forests unmanaged	GR
List of Natura 2000 practices (224)	
the same as commitments mentioned above	
Others (country specific)	

Description of practices within the 224 measure:

- *The prohibition or temporary restriction of final felling* is applied in LT and GR. In Lithuania, the final felling of forests is forbidden in the stand that has reached the age of final felling applied for IV forest group, or is postponed. To fell clusters in torrents, thalwegs and rocky areas utilising the relief is prohibited in Greece
- *The prohibition of final felling by clear cutting method* is also an common restriction. Within reviewed countries / regions this restriction is compensated for in LT and DE_{NRW}
- *The permanent exclusion from felling* of 2 more trees per hectare of every tree species making up the forest, starting from the oldest and biggest trees and the exclusion from

felling of beech coppice-woods reaching the rotation age were both designed among Natura 2000 practices in Umbria (Italy). In Lithuania, an additional number of un-felled living trees must be preserved and left in clear cutting areas

- *The maintenance of the proportion of old and deadwood* is also a popular requirement implemented in DE_{NRW} and LT. Similarly in GR where the prohibition of the removal of all badly shaped and fallen trees is applied
- *Preservation of the proposed arrangement of tree species* in favour of deciduous species is part of the payment calculation in CZ and in DE_{NRW}
- Among other country-specific commitments / practices are for example: t*he removal of undesirable regeneration or applying biotope specific development activities* (DE_{NRW}), *the prohibition of grazing in forests* (IT_{UMB}) or *the maintenance of some part of the forest to be unmanaged* (GR).

The descriptions of relevant practices provided above confirm the difference between the 213 and the 224 measures. Whereas the commitments and practices applied within the 213 measure are similar to AEMs and within the 224 measure rather to FEMs. Considering that the description of Natura 2000 payment calculations had to be provided separately for agricultural and forestry land. Also different cost and revenue components were identified within both Natura 2000 measures (see the following chapter).

3.3 Definition of cost and revenue components

Before the cost and revenue components can be identified the following findings should be mentioned:

- **a direct linkage between payment calculation and commitment / practices does not exist in all cases** (e.g. in $DE_{NRW,}$ there is a list of required practices but payment is based on an estimated decrease of grassland output; similarly in LT where five main restrictions are defined but payment is based on the difference in an aggregated item FNVA, etc.)
  In addition, since the general commitment is to keep the particular restrictions set in the management plan for N2000 sites, the current list of practices influenced the payment level need not contain all possible requirements for Natura 2000 areas (e.g. in $DE_{NRW,}$ there is a list of required practices but precise land use changes which have to be applied in different areas are case-specific and not traceable)
- **payment is sometimes defined as one rate without a detailed calculation process** (e.g. compensated maintenance cost of old trees or deciduous wood is estimated from the previous supporting period in DE_{NRW})
  In addition, **the Natura 2000 payments are often based on aggregated items** only, such as GM, SGM, NM, FNVA or Forestry Income without any detailed information about how these items were calculated.

The identification of cost and revenue components applied within Natura 2000 payment calculations is provided in two steps. Firstly selection between Balance sheet approach (i.e. the fixed list of components based on FADN hierarchy structure) and Practices approach (i.e. the flexible list of components relating to particular required practices) should be done to determine the appropriate components. Secondly particular cost and revenue components used in payment calculations are identified.
The reviewed Natura 2000 payment calculations have shown that both calculation approaches are applied across investigated countries / regions. The Balance sheet (FADN) approach is used in LT in the case of the 213 measure and IT_{UMB} in both Natura 2000 measures (e.g.

covering components such as FNVA, forestry output covering sales of felled and standing timber, forestry specific costs, purchase fodder for animals, rent paid etc.) The Practices approach is used in the other countries / regions where Natura 2000 payments are implemented. The cost components considered in the calculation include for example: the maintenance cost of biotopes, the maintenance cost of old- and deadwood proportion or of deciduous forests, the labour cost of an additional shepherd due to the limitation of herd size or due to the removal of undesired generation in forests, rent of pasture or other direct costs and services relating to meadows, wood harvesting and logging costs etc. The identified revenue / income components include for example: the output of meadows or grassland, the forestry output of coppiced wood or mature forest stands, the gross margin of meadows or unimproved grassland, interest income compensation for the forest owners loss of forest income due to the postponement or restriction of final forest cutting or restriction of the usage of the clear cutting method etc.

In fact, the identified cost and revenue components within the Practices approach can be simplified into a few general categories (see below) and the only difference from the Balance sheet approach is that these components are linked to specific crop / forest type or particular practice. Moreover, the cost components considered in the calculation are mostly determined by single figures only without more detailed description about how the figure is calculated (e.g. maintenance costs or wood harvesting costs are presented as one value (EUR/ha) without detailed identification if labour costs, fuel, machinery overheads or contract costs are included). In such cases the more aggregated item the so-called "Other practice related costs" would be used. When more detailed data is available (i.e. machinery costs, eventually subcategories such as fuel, oil, overheads, repairs etc.) a higher level of cost component detail could be applied.

The general categories of cost / revenue components of the Practices approach include:

REVENUE & INCOME

a) outputs (crop, livestock, forestry, other)
b) income (gross margin, net margin, forestry income, interest income)

COSTS

a) Specific costs (inputs)
    a. in the case of crops (i.e. seeds, fertilizers, crop protection products and other crop specific costs)
    b. in the case of livestock (i.e. feeding stuffs and other livestock specific costs)
b) Related costs (linked to particular practices)
    a. machinery costs
    b. contract work
    c. other overheads
c) Other costs (i.e. wages paid, rents and interests)

The structure of cost and revenue components used within Natura 2000 payment calculation in selected examples of the grid application is presented in

Table 3.3-1 (components with a brown background are concerned with the 213 measure, while those with a green background to the 224 measure).

Table 3.3-1: Overview of cost/revenue components in selected examples (Practices approach)

Cost (1st level)	Cost (2nd level)	Revenue	Income
2.1 CROP / FORESTRY SPECIFIC COSTS	Seeds / seedlings	1.1 CROP OUTPUT	Forestry income (= value of forest stands)
	Fertilizers and soil improvers	1.2 LIVESTOCK OUTPUT	Average felling increment (= forest income / rotation)
	Crop / forestry protection products	1.3 FORESTRY OUTPUT	Interest income (= interest rate)
	Other crop specific costs	1.4 OTHER OUTPUT	Gross Margin
2.2 LIVESTOCK SPECIFIC COSTS	Feeding stuffs		Net Margin
	Other livestock specific costs		
2.3 OTHER PRACTICE RELATED COSTS	Machinery costs		
	Contract work		
	Other overheads		
2.4 WAGES PAID	Wages		
2.5 RENTS	Rent		
2.6 INTERESTS	Interest (savings)		

Since the Natura 2000 payment calculations and components used have varied significantly among the reviewed countries and regions, the following text aims to provide a brief description of particular applied calculation processes (see Figure 3.3-1 for the 213 measure and Figure 3.3-2 for the 224 measure).

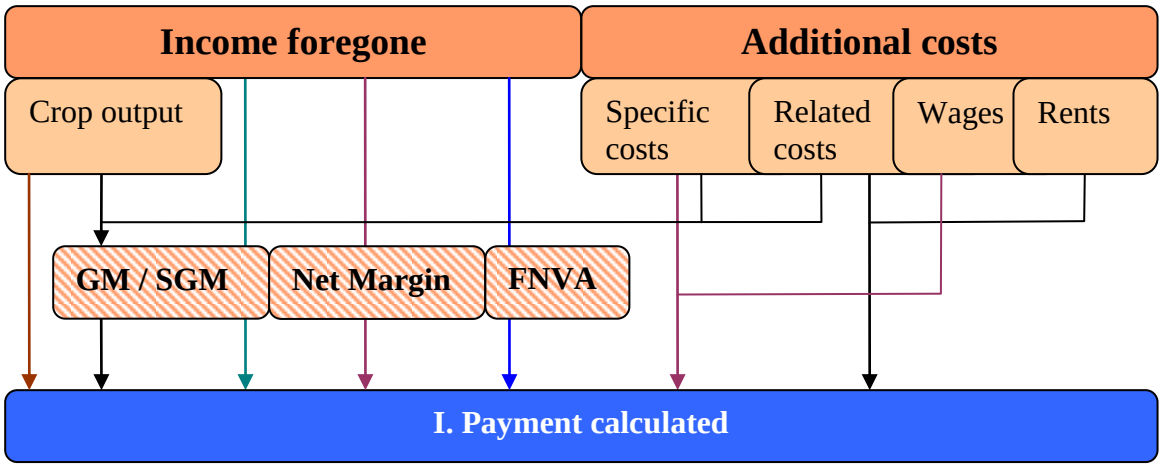

Figure 3.3-1: Description of the calculation of Natura 2000 payments on agricultural land (213)

The Natura 2000 payments on agricultural land are based either on revenue / income components only or cost components only or on a mix of both (see Figure 3.3-1). The final payment is calculated as the difference in the revenue component: output of grassland (used in DE_{NRW}) or in the following income components: gross margin, net margin (used in ES_N) and farm net value added (used in LT) without a more detailed description. The payment is based on gross margin difference also in CZ but here a more detailed calculation exists and GM is determined as the difference between the output of meadows and specific and other costs related to meadow maintenance. In two cases the payments are based on additional costs only; in Navarra (Spain) where within steppe lands the higher feed costs (i.e. specific costs) and

labour costs (i.e. wages) are compensated for and in Umbria (Italy) where the rent and management costs (i.e. related costs) of needed new pastures is covered.

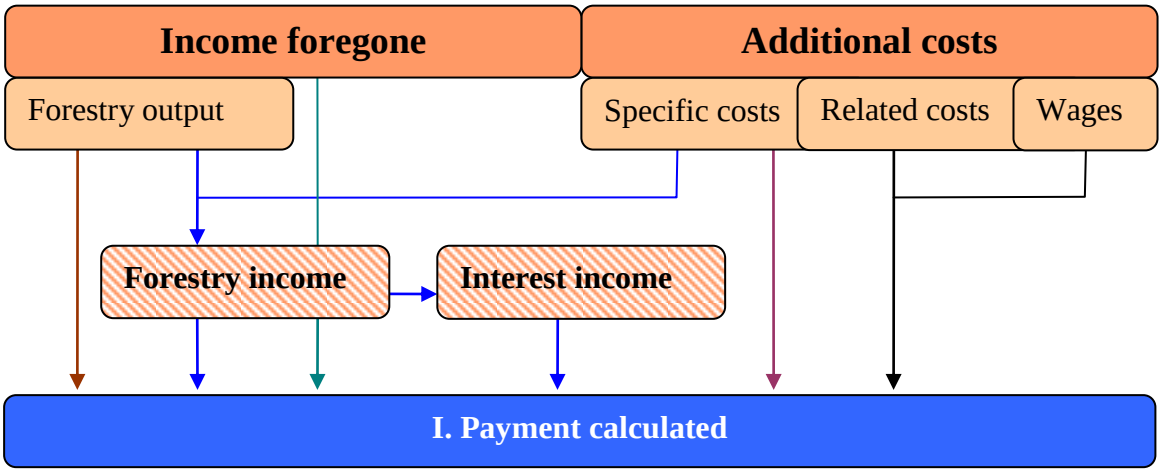

Figure 3.3-2: Description of the calculation of Natura 2000 payments on forestry land (224)

The Natura 2000 payments on forestry land are also based either on revenue / income components only or cost components only or on a mix of both (see Figure 3.3-2). The final payment is calculated as the difference in the revenue component: forestry output (e.g.used in LT to compensate the maintenance of old / deadwood) or in following income components: forestry income (used in CZ and LT) and interest income (used in LT and DE_{NRW}). The interest income is calculated as the long-term interest rate from not earned forestry income due to the prohibition of final felling or clear cutting in LT and DE_{NRW} or premature usage of undesirable species in DE_{NRW}. Additional costs are included in DE_{NRW} and IT_{UMB} only. In the case of North Rhine-Westphalia (Germany), the related costs (i.e. the maintenance costs of the old and deadwood portion and costs of biotope development) and wages (i.e. labour costs for the removal of undesired species) are included. The values of all these costs are based on the expenditure of previous periods with no detailed calculation. In Umbria (Italy), only specific costs are covered (i.e. increased feedstuff costs resulting from the prohibition of grazing in forests and the consequent necessity to buy needed feed).

4. Payment differentiation

The payment differentiation is understood as the result of more payment rates per commitment. Thus the separation of the Natura 2000 measure into several submeasures representing different commitments is not considered as real payment differentiation.

Compared to other investigated RD measures, the Natura 2000 payments are differentiated to a lesser extent and mostly, for a particular commitment, there exists one payment level per hectare which is applied horizontally. Overall the differentiation of Natura 2000 payments was found in three investigated countries: DE_{NRW}, ES_N and GR and the main factor of the differentiation is ***various management restrictions*** applied in the Natura 2000 areas. If the level of restrictions correspond to the different degrees of protection status of considered areas then ***administrative land division*** can be used as the differentiation criterion as well (as in the case of DE_{NRW}). In addition, differentiation according to ***type of crops*** is used in ES_N and according to ***type of woodland, specific tree species and woodland function*** in GR. All identified categories and elements used for the differentiation of Natura 2000 payments are described in Table 4-1.

North Rhine-Westphalia (Germany) differentiates Natura 2000 payments for both agricultural and forestry land according to the level of conservation obligations which correspond to the different degrees of designated administrative protection status of considered areas (i.e. nature conservation areas correspond to areas with high conservation obligations, landscape conservation areas to areas with moderate conservation obligations and other protected areas to areas with minimal conservation obligations). Navarra (Spain) differentiates the payment level within the submeasure "Sheep-grazing on Natura 2000 steppe lands" into more optional contracts and adapts management to more real conditions. The payment calculation contains a prohibited grazing period element (i.e. non-grazing periods and periods when the flock is limited up to 700 sheep) which is determined by the Management Plan for each of the Natura 2000 sites and has an impact on the final level of payment. Furthermore within the second sub-measure "Mountain grazing on Natura 2000", different payment levels are provided for permanent pastures and meadows and for extensive rough grazing areas. Some form of payment differentiation is planned to be applied in Greece as well. The proposed final payment rates within the 224 measure will be differentiated according to the type of woodland (coniferous, broadleaves), the specific tree species (Aleppo pine, Turkish pine, Stone pine, Cypress, other conifer) and the woodland function (productive resin).

Table 4-1: Description of applied differentiation categories and elements

Differentiation category	Differentiation elements	Description
Planning and management (213, 224)	Particular restriction 1 Particular restriction 2 Particular restriction 3 …	different payment levels for various management restrictions within the same commitment (e.g. commitment to maintain pastures according to particular grazing rules with various limited grazing periods or livestock density)
Administrative land division (213,224)	Protected area type 1 Protected area type 2 Protected area type 3 …	different payment levels for particular protected areas according to applied restrictions (e.g. higher payments for areas with higher degree of restriction)
Type of crops (213)	Permanent pastures and meadows Rough grazing / scrub	different payment levels per particular practice for different crops (e.g. higher payments for more intensified areas)
Woodland and trees (224)	***Type of woodland:*** Coniferous Broadleaves	different payment levels per particular practice for different type of woodland, specific tree species or woodland function
	Specific tree species: Aleppo pine Turkish pine Stone pine Cypress other conifer	
	Woodland function: Productive (resin)	

Based on the comprehensive review of payment calculations and knowledge that the final payment level is sometimes calculated as the average of different payment rates for particular situations, the additional potential differentiation categories can be identified (see Table 4-2).

Table 4-2: Description of possible differentiation categories and elements

Differentiation category	Differentiation elements	Description
Land characteristics (213)	***Land use:*** Arable land Permanent crops Pastures Heterogeneous agricultural areas Other	different payment levels for various land uses (e.g. higher payments for more intensified or preferred land use)
(224)	***Land use:*** Forests Shrubs / herbaceous vegetation association Sclerophyllous vegetation Open space with little or no vegetation Other	
Land characteristics (213)	***Soil fertility/quality:*** Degree of fertility 1 Degree of fertility 2 …	different payment levels based on productivity of land (e.g. higher payments for areas with better conditions and higher yield levels)
Farm characteristics (213)	Field crops Grazing livestock …	different payment levels for various types of farming (e.g. restrictions have a different impact on livestock compared to crop production farms)
Type of beneficiary (213,224)	Full-time farmer Part-time farmer Not farmer Public authorities	different payment levels according to legal status of beneficiaries (e.g. higher payments for full-time farmers)
Woodland and trees (224)	Tree species composition 1 Tree species composition 2 Tree species composition 3 …	Different payment levels for particular structure of forest (e.g. higher payments for composition with higher share of broadleaves)

The practical application of payment differentiation within the calculations of Natura 2000 payments is provided in four selected country-examples in the Annex to this report.

5. Calculation of cost and revenue components

This section synthesizes the different methods and approaches used for payment calculations in the Natura 2000 measures. Furthermore an explanation of the actual calculation processes within selected country examples is presented and an overview of data sources used has been added.

5.1 General description of applied approaches in payment calculation

The reviewed countries and regions use many kinds of methods in measuring the handicaps resulting from the implementation of the Birds and the Habitats Directives. These methods can be summarized in the following three groups:

- compensation due to a limitation of provided practice = **payment is based on the difference in data on costs and revenues** of a farm located in the Natura 2000 areas compared to the corresponding data of a farm located outside the Natura 2000 areas (e.g. the difference in GMs caused by lower fertilization of meadows or the difference in forest income for typical and preferred tree species composition of forests in CZ, the difference in net margins caused by extensive mountain grazing in ES_N, the difference in crop output caused by the different degree of restriction in DE_{NRW})
- compensation due to stopping a particular practice = **payment is equal to** either **income foregone from the prohibited / restricted activity** (e.g. forest income from temporary or permanent exclusion from felling in LT and IT_{UMB}, the gross margin from pastures excluding from usage to protect certain elements of value for flora and fauna in ES_N) or **to additional cost resulting from prohibited activities** (e.g. increased feed and labour costs resulting from the requirement not to use pastures during various periods and reduce flock size in ES_N, additional costs for hay purchasing due to prohibition of cattle grazing on 20% of the pasture in IT_{UMB})
- compensation due to a requirement to maintain the particular practice or provide an additional practice = the **payment is equal to the additional costs of required activity** (e.g. increased labour costs resulting from the requirement to remove undesirable regeneration or other practice related cost due to the maintenance of typical biotopes of deciduous forests in DE_{NRW}).

In addition, the reviewed countries and regions use various processes to calculate the final Natura 2000 payments which are as follows:

- **direct approach** when the total payment rate is based on one commitment representing a particular required practice (used in CZ and IT_{UMB} (213 and 224), LT (224))
- **modified direct approach** when the total payment rate is calculate as the sum of several rates resulting from a list of required practices (DE_{NRW} (224) and ES_N (213))
- **indirect approach** when the total payment rate is based on an estimated value of selected indicator indirectly related to the required practices (e.g. farm net value added in LT and grassland output in DE_{NRW} (213)); Moreover, in spite of the one payment rate proposed, the list of required practices can differ from site to site since the different composition of habitats and species of Community interest in the Natura 2000 areas require site specific restrictions.

In all three processes the calculation of payment levels is generally based on "typical" or average figures for cost and income which is called the "**Standard cost approach**". Above

this, Greece plans to use a "**Real cost approach**" for the quantification of Natura 2000 payments on forestry land which means that the forest owner should describe, in a submitted technical report, the particular activities undertaken including their relevant / actual costs and the final support will be only limited between a minimum and maximum amount determined by RDR and checked with the Analytical list of costs for forestry work published by MoE.

It is important to write that the final payment levels are not only determined by the calculation methods used, but to a large extent by external factors such as the objectives of other European and national policies, financial considerations, stakeholder influences and payment levels from previous RDPs ("path dependency"). (For example in two countries (DE_{NRW} and IT_{UMB}) the proposed payment levels differed from the calculated amount. In the case of North Rhine-Westphalia (Germany), the reason was budget restrictions and in Umbria (Italy) the necessity to keep below upper payment limits set in the RDR).

5.2 Explanation of the actual calculation process

This chapter describes how payment levels are currently calculated within four selected country-examples. Within the step-by-step approach the calculation process represents the fourth step and as that is presented in the Annex. Since the level of detail provided in the calculations varies among the investigated countries and regions, a different number of tables (from level 1 to level 3) are presented below.

The Natura 2000 payment on agricultural land

The 1st example CZ: The payment is determined as compensation for income foregone due to reduced grass production caused by the ban on fertilization in the Natura 2000 areas (i.e. a decrease from 80 to 0 kg N/ha). Calculation is based on the difference in gross margin between typical and extensive management of meadows in the Natura 2000 areas (see Table 5.2-1). Since more detailed data is available the lower level of calculation can be specified in a sub-mask as shown in Table 5.2-2. At this 2nd level, the GM is calculated according to the following formula:

GM = total output (hay yield * sale price) - **total direct costs per crop** (costs of seeds, fertilizers, crop protection, other direct material and other direct costs and services).

Further levels (sub-masks) of calculation can be used if the data for a higher level of detail is available (e.g. calculation of meadow output – see Table 5.2-3).

Table 5.2-1: Example of calculation within the 213 measure in CZ, level 1

RD Commitments	Baseline practice	Practices
Application of fertilisers or farm manure should be avoided. In the case of pastures, at most 30 kg N/ha can be supplied annually by grazing livestock.	Typical fertilisation level (80kg N/ha)	Prohibition of using fertilizers (0kg N/ha)

Cost / Revenue components		Baseline situation	N2000 situation
Gross margin of meadows	CZK/ha	6 516	3 163
Total compliance cost	CZK/ha	**x**	**3 353**

Table 5.2-2: Example of calculation within the 213 measure in CZ, level 2 (GM calculation)

Revenue components:		Baseline situation	N2000 situation
1.1 CROP OUTPUT	CZK/ha	8 033	3 780
Cost components:			
Seeds / seedlings	CZK/ha	97	97
Fertilizers and soil improvers	CZK/ha	900	0
Crop protection products	CZK/ha	26	26
Other crop specific costs	CZK/ha	101	101
2.3 OTHER PRACTICE RELATED COSTS	CZK/ha	393	393
Gross margin of meadows	CZK/ha	6 516	3 163
Total compliance cost	CZK/ha	**x**	**3 353**

Table 5.2-3: Example of calculation within the 213 measure in CZ, level 3 (output calculation)

Revenue components:		Baseline situation	N2000 situation
Crop yield	ton/ha	5,10	2,40
Sale price of crop	CZK/ton	1 575	1 575
CROP OUTPUT (Output of meadows)	CZK/ha	**8 033**	**3 780**

The 2nd example DE_{NRW}: Premiums are calculated as compensation for income foregone due to reduced grassland output (Table 5.2-4).

The output of grassland is calculated as grass yield reductions expressed in MJ NEL caused by applied restrictions multiplied by the replacement costs. For this purpose the average expected gross yield on grassland (48 000 MJ NEL) is reduced by the expected yield reduction in respective areas (22% in areas with high conservation obligations, 12% in areas with moderate conservation obligations and 10% in areas with minimal conservation obligations)., Only the situation for areas with high conservation obligation is shown in Table 5.2-5 since payment differentiation there is applied. As no more detailed data is available, no further levels (sub-mask) can be shown here.

Within these two selected examples (CZ and DE_{NRW}), two different calculation methods can be identified. In the 1st example, the payment is based on the comparison of overall economic data of farms located inside with the reference group of farms outside Natura 2000 areas. The 2nd example represents a different method when only particular practices or items expected to be influenced by the requirements are identified and compared. In the case of DE_{NRW}, it is a grassland output without any changes in costs considered. On the other hand, the 2nd compensation based on forage energy units assesses more precisely the impact of applied requirements since it is able to evaluate the decrease in the quality of grass as well.

The Natura 2000 payment on forestry land

The 3rd example CZ: Payment is calculated as a weighted average of the differences in forest income based on the average felling increment (AFI) of forests with the current and possible species composition of stands from five chosen typical types of forest within the Natura 2000 areas (Table 5.2-6). This measure focuses on the observation of existing environmentally suitable species composition of trees include: fir, oak, beech, other broadleaved trees, poplar forests and coppices. Compensation is provided to forest owners who disclaim to the possibility to plant tree species with higher AFI and keep current composition of trees with lower AFI but with higher environmental impact. By reason of that, forest owners should obtain a payment in the amount equal to the difference between the possible and obliged AFI for a rotation as long as it is for the current stand. The payment is paid out for a twenty-year period. The payment calculation has been performed according to the formula:

Final payment = weighted average of five differences in forestry income weighted by size of selected Natura 2000 sites / 20 as the period of payment

Whereas the difference in forest income is calculated as: **(AFI of possible composition – AFI of current composition) * rotation of current stands**

Since in CZ the payment calculation is based on very comprehensive forestry evidence and the methodology is already used for compensation of forest damages, more levels of detail are available here. The 3rd level of calculation aims to determine AFI for particular forest types. A basis for the AFI calculation is the Value of forest stands and rotation. The Value of forest stands is based on the Table value of forest stands calculated according to following formula: **Thlpa = P0 + P1*a + P2*a2 + P3*a3;** where "a" is age of forest stand and "P0-P3" are coefficients defined in specific tables and dependant on type of tree species groups and yield class. A value of the Table value of forest stands is further modified by additional factors such as tree density, yield class and deduction due to decomposition of core stock proportionate to age (for more detail see Table 5.2-7 and Annex).

Table 5.2-4: Example of calculation within the 213 measure in $DE_{NRW,}$ level 1

RD Commitments	Baseline practice	Practices
Obligation to keep the principle prohibiting any deterioration of the current state of biotope qualities for continuing cultivation.	GAEC = Rules for the maintenance of grassland	Restriction of drainage
		Restriction of ploughing meadows or re-sowing them
	The average yield of grassland (48000 MJ NEL/ha)	Renunciation of particular activities on agricultural land

Differentiation category		Administrative Land division					
Differentiation element		areas with high conservation obligations		areas with moderate conservation obligations		areas with minimal conservation obligations	
Cost / Revenue components		Baseline situation	Baseline situation	N2000 situation	N2000 situation	N2000 situation	N2000 situation
1.1 CROP OUTPUT (output of grassland)	EUR/ha	491	383	491	432	491	442
Total compliance cost	EUR/ha	**x**	**108**	**x**	**59**	**x**	**49**

Table 5.2-5: Example of calculation within the 213 measure in $DE_{NRW,}$ level 2 (output calculation)

Differentiation category		Administrative Land division	
Differentiation element		areas with high conservation obligations	
Revenue components:		Baseline situation	N2000 situation
Average gross yield on grassland	MJ NEL/ ha	48 000	48 000
Reduction due to harvest losses	%	30	30
Reduction due to obligations	%	0	22
Net yield on grassland	MJ NEL/ ha	33 600	26 208
Price (= replacement cost for wheat)	EUR/ MJ NEL	0.0146	0.0146
Output of grassland	EUR/ha	491	383
Total compliance cost	EUR/ha	**x**	**108**

Table 5.2-6: Example of calculation within the 224 measure in CZ, level 1

RD Commitments	Baseline practice	Practices
Preservation of particular tree species composition (*Applicant should keep current structure of the forest and observe the species composition recommended for the regeneration*).	Standard cultivation requirements based on the Act No. 289/1995 Coll. on forests and the designed Forest management plan.	Preservation of particular tree species composition

Cost / Revenue components		**5 selected Natura 2000 site:**									
		Luzulo-Fagetum (Šumava)		Asperulo-Fagetum (Chřiby)		Galio-Carpinetum (Podyjí)		Galio-Carpinetum (Podluží)		Acidophilic pine groves (Šumava)	
		Baseline	**N2000**	**Baseline**	**N2000**	**Baseline**	**N2000**	**Baseline**	**N2000**	**Baseline**	**N2000**
Average felling increment (AFI)	CZK/ ha	4 765	4 290	5 175	5 077	3 678	3 537	5 591	4 798	3 796	3 694
Difference of AFI	CZK/ ha	x	475	x	98	x	140	x	793	x	102
Rotation of current stand	Year	x	140	x	120	x	40	x	40	x	140
Difference of forestry income	CZK/ ha	x	66 555	x	11 708	x	5 611	x	31 733	x	14 290
Weight (share in N2000 sites area)	%	x	29.8	x	23.41	x	8.32	x	10.74	x	27.85
Difference of forestry income, weighted by the area of N2000 sites	CZK/ ha	x	19 756	x	2 740	x	467	x	3 409	x	3 979
Total compliance cost	EUR/ha										**30 351**
Total compliance cost (per one year of 20 year commitment)	EUR/ha										**1 518**

Table 5.2-7: Example of calculation within the 224 measure in CZ, level 2 (AFI calculation)

Cost / Revenue components		**5 selected Natura 2000 site:**									
		Luzulo-Fagetum (Šumava)		Asperulo-Fagetum (Chřiby)		Galio-Carpinetum (Podyjí)		Galio-Carpinetum (Podluží)		Acidophilic pine groves (Šumava)	
		Baseline	**N2000**	**Baseline**	**N2000**	**Baseline**	**N2000**	**Baseline**	**N2000**	**Baseline**	**N2000**
Forestry income (Value of forest stands Hlp)	CZK/ha	434 611	157 606	378 994	144 870	441 333	141 500	838 643	191 905	417 805	73 712
		137 178	442 927	138 512	464 429					75 718	443 483
Rotation	Year	120	140	100	120	120	40	150	40	130	140
Average felling increment (AFI)	CZK/ha	**4 765**	**4 290**	**5 175**	**5 077**	**3 678**	**3 537**	**5 591**	**4 798**	**3 796**	**3 694**

The 4th example LT: The 224 measure contains 4 submeasures with following commitments:

a) First two submeasures are based on similar approaches when the value of the forest stand left uncut (i.e. forest income) is assessed. The annual payment is equal to interest rate loss due to the postponement or restriction of final forest cutting or restriction of usage of clear cutting way. In the case of restriction of clear cutting, it is expected that 50% of thinned mature trees are left uncut in the forest stand. An assumption is that the forest owner put money, which he/she received from the forest cutting, into the bank and receives interest income from a long term deposit (3,70% p.a.). The evaluation of forest income is based on mean volume of mature forest stands multiplied by timber price decreased by costs of harvesting and logging (see Table 5.2-8 and Table 5.2-9).

b) The third submeasure contains a commitment of permanent exclusion from felling of a particular number of living trees. Compensation is made as the one-off payment since selected trees will never be felled. The basis for income foregone is an evaluation of one living tree by timber price, decreased by costs of harvesting and logging. The final payment is equal to a compensation for 10 living trees per hectare of clear cutting area.

c) The last submeasure and its payment is based on an assumption that around 15 dying trees per hectare are usually felled within sanitary felling and the prohibition of their cutting caused income foregone equal the valuation of such non-felled tree volume by fuel wood price (see Table 5.2-10, Table 5.2-11 and Table 5.2-12)

Table 5.2-8: Example of calculation within the 224 measure in LT, level 1 (1st submeasure)

RD Commitments	**Baseline practice**	**Practices**
Prohibition / temporary restriction of final felling (*The final felling of forests is forbidden in a stand that has reached the age of final felling applied for the IV forest group, or the final felling of forests should be postponed*).	Standard cultivation requirements based on the Forest Law No. I-671	Prohibition / temporary restriction of final felling

Cost / Revenue components		**Baseline situation**	**N2000 situation**
Forestry output	EUR/ha	6 862	0
Other practice related costs (Wood harvesting and logging)	EUR/ha	2 272	0
Forestry income	EUR/ha	4 590	0
Difference of forestry income	EUR/ha	x	4 590
Interest income (3.70% p.a.)	EUR/ha	x	170
Total compliance cost	EUR/ha	**x**	**170**

Table 5.2-9: Example of calculation within the 224 measure in LT, level 2 (1st submeasure)

Revenue components		**Baseline situation**	**N2000 situation**
Mean volume of forest stands	m3/ha	255	x
Percentage of marketable volume	%	90	x
Average marketable volume	m3/ha	230	x
Average price of wood	EUR/m3	29.9	x
Forestry output	EUR/ha	**6 862**	**0**
Cost components			
Wood harvesting and logging	EUR/m3	9.9	x
Wood harvesting and logging	EUR/ha	**2 272**	**0**
Forestry income	EUR/ha	**4 590**	**0**

Table 5.2-10: Example of calculation within the 224 measure in LT, level 1 (3rd submeasure)

RD Commitments	Baseline practice	Practices
Permanent exclusion from felling (*An additional number of living trees have to be preserved and left in clear cutting areas*).	Standard cultivation requirements based on the Forest Law No. I-671	Permanent exclusion from felling

Cost / Revenue components		Baseline situation	N2000 situation
Forestry output	EUR/ha	215	0
Other practice related costs (Wood harvesting and logging)	EUR/ha	71	0
Forestry income	EUR/ha	144	0
Difference in forestry income	EUR/ha	x	144
Total compliance cost	EUR/ha	**x**	**144**

Table 5.2-11: Example of calculation within the 224 measure in LT, level 2 (3rd submeasure)

Revenue components		Baseline situation	N2000 situation
Mean volume of forest stands	m3/ha	8	
Percentage of marketable volume	%	90	
Average marketable volume	m3/ha	7	
Average price of wood	EUR/m3	29.9	
Forestry output	EUR/ha	**215**	**0**
Cost components			
Wood harvesting and logging	EUR/m3	9.9	
Wood harvesting and logging	EUR/ha	**71**	**0**
Forestry income	EUR/ha	**144**	**0**

Table 5.2-12: Example of calculation within the 224 measure in LT, level 3 (3rd submeasure)

Revenue components		Baseline situation	N2000 situation
Average number of trees left in clear cutting area	number	10	
Average volume of one left tree	m3	0.8	
Mean volume of forest stands	m3/ha	**8**	

The examples within the 224 measure have shown the different level of payment calculation complexity. In CZ, the final payment is based again on the overall economic comparison of required and reference types of forests. Due to a lack of silvicultural data, the second approach identifying only particular practices which are expected to be influenced by the commitment is used more frequently. The risk of the second approach is that not all significant changes in management will be identified and evaluated respectively possible cost savings will not be considered in calculation. The review has shown some other differences in payment calculation which can cause unevenness conditions for farmers. For example the commitment "Prohibition of final felling" is compensated by interest income and this income is calculated by using compound interest as well as simple interest.

5.3 Data sources

Considering the wide range of commitments and calculation approaches used, the list of data sources used is also very heterogeneous. Each country uses data from different sources, particularly for Natura 2000 on forestry areas where no common database exists. A range of different data sources for the quantification of Natura 2000 payments is described below separately for agricultural and for forestry areas.

Natura 2000 payments on agricultural land:

- FADN predominates,
- surveys, expert estimation and academic literature are essential complements

Natura 2000 payments on forestry land:

- national guidelines:
  - CZ – legislation for forest evaluation published by MoA,
  - DE_{NRW} – IACS, Forest value evaluation guideline published by Federal state NRW,
  - GR – Analytical list of costs for forestry work published by MoE,
  - LT – FADN, Methodology for accounting and evaluation of sprouts, planting and afforestation works published by MoE,
  - IT_{UMB} – price list for forestry products published by Chambers of Commerce, value tables of standing timber published by Regional Agency for Environmental Protection and Prevention,
- surveys, expert estimation, models and academic literature are also essential

Although FADN was identified as the common data source for the quantification of Natura 2000 payments on agricultural land, additional sources such as expert surveys, expert estimation and academic literature are still needed. For example the survey had to be realized in the Czech Republic where data for grass yield reduction, hay prices and input costs were not available for the different level of fertilization (i.e. 80 and 0 kg N/ha). Similarly in North Rhine-Westphalia (Germany) grass yield reductions due to Natura 2000 restrictions were estimated by local experts. The non-existence of regionalized data for the calculations of income foregone (i.e. gross and net margin of mountain grazed grassland) and additional costs (feeding and labour costs) has been mentioned in Navarra (Spain) but such data absence is obvious in the other countries as well.

In the case of Natura 2000 payments on forestry land, national evaluation guidelines (mostly in the form of legal document published by state institutions) provide the methodological framework for the valuation of revenues and costs of forest management and are the main source of data in all countries implementing this measure (e.g. in CZ, there is a very comprehensive system of forestry evidence and the Natura 2000 payment is based on the existing methodology of calculating the damage in forests according to state Decree; the Analytical list of costs for forestry work, published regularly by MoE is used to calculate and also check the costs per individual application in Greece, etc.). In addition, expert surveys, modelling exercises, expert estimation and academic literature are often used as supporting data sources. For example, modelling exercises are conducted in CZ, LT and DE_{NRW} to develop a set of different forest types according to tree species composition and allow the estimation of payments. According to experts, the valuation of forest stands and determination of revenue and cost components is much more difficult than for crops on agricultural land since these components vary a lot among different forest types (i.e. it depends on yield class, tree species, tree density, rotation etc.) and the payment is usually calculated as an average

value for stands with various characteristics. The FADN database is used as the source for economical forestry data only in Lithuania.

6. Implementation and application of payment limits and RDR requirements

In practice, various types of payment limitation are applied within the RD measures, e.g. maximum amount of subsidy per farm / beneficiary, maximum area supported, modulation of payment according to farm size, digression of payments according to crop size or according to AWU employed on the farm. In addition there is a limitation based on RDR requirements when Natura 2000 support on agricultural land should be limited to the maximum amount EUR200/ha (EUR500/ha for a period not exceeding five years) and the Natura 2000 support on forestry land should be fixed between the minimum (EUR40/ha) and maximum (EUR200/ha) amounts. These amounts may be increased in exceptional cases taking into account specific circumstances justified in the RDPs

The provision for payments under the minimum limit or exceeding the maximum limits laid down in the RDR Annex is not common within the Natura 2000 payments. The limits are exceeded only in Greece where support for Natura 2000 on forestry land may be increased up to EUR300/ha in exceptional cases taking in account the specific circumstances. In addition to this, only one out of nine partner countries applies a maximum amount per beneficiary. It is in Navarra (Spain) where the limit of EUR3000 per beneficiary is implemented within the 213 measure (e.g. the limit is equal to the estimated annual cost of employing extra labour for the time they need to split the flock into two parts due to the required reduction of the herd size up to 700 sheep).

In two countries (DE_{NRW} and IT_{UMB}), the proposed payment levels differed from the calculated amount. In the case of North Rhine-Westphalia (Germany), the budget restrictions resulted in lower payment levels on agricultural land than those calculated. In Umbria (Italy) the decrease of proposed payment levels was caused by the necessity to keep upper payment limits set in the RDR.

Applied specific eligibility criteria can also be considered as an additional limitation on the Natura 2000 payments. The measure 213 payments are available only for grassland in all partner countries (CZ, DE_{NRW}, $ES_{N,}$ IT_{UMB}) except for Lithuania where the payment is provided for UAA. In the case of Natura 2000 payments on forestry land, CZ and DE_{NRW} apply support only for specific tree species. Forests supported in CZ should be composed of fir, oak, beech, other broadleaved trees or poplar forests and coppices. In DE_{NRW} only deciduous forests are supported.

7. Problems encountered and future tasks

The review of the payment calculations in Natura 2000 measures identified a number of different issues which can be synthesized into the following key areas:

Main problem areas:

- Data availability
- Applicability of the standard cost approach
- Policy administration
- RDR requirements
- Large variation in payment calculation approaches

The most commonly cited problem was the lack of suitable and up-to-date data. In particular, economic and silvicultural data are missing (e.g. yield reduction caused by applied restrictions, cost of wood harvesting, valuation of non-felled volume etc.). Moreover, even if this data existed, there would still be a lack of regional data to enable the calculation on a local level. For this reason the Natura 2000 payments are based on state wide aggregated averages and normative data instead of actual and regional figures and are implemented mostly horizontally as one flat-rate payment.

Further, the inflexibility of the standard cost approach was criticized for not taking into account the wide range of different circumstances and changes in the economic environment. The long-term character of the measures requires the possibility to modify the proposed payments according to the actual situation (e.g. the fluctuations of prices, interest rates etc.). Another problem mentioned is an applicability of the standard costs approach in the "real world". In some cases the determination of payment components and the calculation of income foregone and additional costs is very difficult and some factors are nearly impossible to be quantified (e.g. landscape values, the decrease in the quality of grass). To cover such factors, different ways of calculation should be discussed in future (i.e. paying for the environmental benefit produced by the farmer). In the case of the 224 measure, the discrepancy between payment periods and the duration of commitments (i.e. 20-25 years) was also mentioned as a problem.

Furthermore, lack of methodological experience and skills of ministry staff concerning this kind of evaluation was also identified as a problem. In addition, since the Natura 2000 payments have been newly introduced, uncertainties in relation to Natura 2000 purpose and the difference from AEMs or FEMs exist even though in some cases similar commitments (sub-measures) with a similar level of compensation have been implemented in both measures.

Payment restrictions in the RDR framework were also pointed out as constraints for defining adequate financial support mechanisms at farm level. The Natura 2000 payments should compensate for income foregone and / or additional costs resulting from the restrictions implemented by the Birds and the Habitats Directives. In fact, these restrictions are usually defined on a very general basis. They have often the form of the maintenance of the current situation with the eventual limitation of particular activities without any additional activity required. In such cases, land abandonment and solution of further land management is the main problem and payments would have to take into account the full costs of environmentally desirable land management. The current low payment does not provide a sufficient incentive especially for forest owners and can no longer be increased through the provision of an

incentive element. In addition, the maximum amount of Natura 2000 payments laid down in the RDR also hinders provision of an adequate level of compensations.

Among significant issues which should be taken into account in future payment calculations are large variations in the approaches used to calculate payments and transparency in the Natura 2000 payments calculation. Although there is only one RDR, each country and region implements the rules in various ways and applies different payment calculation processes. Furthermore, sometimes more than one approach for payment calculation exists and the level of payment depends on the chosen approach and the level of detail in the calculation (e.g. what kind and how many operations are included in the calculation process). In addition, a detailed description of how the proposed payment rates were calculated is missing in some cases together with evidence of the baseline requirements considered in the payment calculations. On the other hand, a very detailed difficult process of payment calculation could bring high transaction (administration) costs and hinder future innovation in the application of RD measures.

Most of the above mentioned problems and issues within the payment calculations confirm the necessity for long-term research to enable: the better availability of suitable data and different data sources; an increased knowledge of the assessment of payment components; the innovation and the use of more variations of payment calculation method within clearly defined limits. More attention should also be paid to an improvement of methodological experience among the staff responsible for payment calculation and RD measure design. Space for such improvements is within the future design of RD measures and RDPs (e.g. within the support of technical assistance actions provided through the EAFRD).

8. Conclusions and policy recommendation

The report presents the methodological grid for the calculation of Natura 2000 payments which was developed to provide harmonized and more transparent methods of payment calculations applicable across EU.

The research has confirmed the expectation of a large variation in the implementation and commitments and consequently in the approaches used for Natura 2000 payment calculations. Natura 2000 payments are not implemented at all in four of nine partner countries (FI, IT_{UMB}, PL and SCO). Furthermore, the measure 213 is excluded in Greece and the measure 224 does not exist in Navarra (Spain). All these countries prefer to support preservation of Natura 2000 areas mainly through agri- and forest-environment payments.

The commitments within the Natura 2000 measures usually have the form of stopping or restricting particular activities or the maintenance of the current situation without any additional activities being required and they are often defined as a basic requirement not specified in more detail. The Natura 2000 payments are usually defined as flat-rate payments implemented horizontally, often based on aggregated items only, without any detailed information of how these items were calculated. The final payment rate can be based on one single requirement or is equal to the sum of rates relating to several requirements of one commitment or is equal to an estimated value of a selected indicator indirectly related to required practices. Furthermore tree types of methods of Natura 2000 payment calculations were identified:

- compensation due to the limitation of provided practice and the payments are based on the difference of data in costs and revenues of a farm located inside and one outside Natura 2000 areas;
- compensation due to stopping a provided practice and the payments are equal to income foregone or to additional costs resulting from prohibited activities;
- compensation due to the requirement to maintain the particular practice or provide an additional practice and the payments are equal to additional cost of a required activity.

Also the real cost approach, when actual costs could be compensated, was used in Natura 2000 payment calculation in one case instead of the general standard cost approach.

Although according to RDR only commitments going beyond the baseline requirements can be compensated for, there is little to no evidence available from the review that the existing baseline requirements have been directly considered in payment calculations. Within the reviewed payment calculations, the baselines are represented mostly by common practice and by the requirements of additional national legislation which applicants have to meet in Natura 2000 areas.

Concerning payment differentiation, the Natura 2000 payments are less differentiated compared to other RD measures and usually one payment level per hectare exists for each particular commitment. Overall the differentiation of Natura 2000 payments was found in three investigated countries: DE_{NRW}, ES_N and GR and the reasons for the differentiation are as follows: various management restrictions; administrative land division; the type of crop and the type of woodland, specific tree species and woodland function.

Apart from the above mentioned findings, the research has confirmed that the final payment levels are not only determined by the methods of calculation used, but to a large extent by other factors such as:

- different baseline requirements;
- variations in applied eligibility criteria;
- different data sources and reference periods;
- different payment periods;
- political objectives (European and national);
- financial considerations or previous payment levels etc.

Considering these factors, it is not possible to define common detailed rules about how to calculate payments for particular RD measures. In addition any calculation process can not be marked as right or wrong since too many factors influenced the process. However, the research has also shown that certain similarities can be found across countries and some harmonization of payment calculation processes is feasible. The developed methodological grid for Natura 2000 payments represents such a form of common process including particular steps which are necessary during Natura 2000 payment calculation. The application and future improvement of such a harmonized grid can help to consolidate the process in payment calculation across regions or countries and also can reduce negotiation time between Member States and the Commission.

The review of the payment calculations of Natura 2000 measures, identified a number of different issues which should be taken into account in future calculations which include:

- the lack of suitable, up-to-date and regional data;
- limitations of the standard cost approaches;
- constraints resulting from RDR requirements;
- lack of methodological experience;
- the large variation and low transparency of payment calculations etc.

These problems and issues can be given as the reason that many Member States have decided to implement Natura 2000 payments as a scheme covering a fairly large geographical area (whole Natura 2000 areas) with undifferentiated payment rates. However the Natura 2000 measures are designed to solve the local needs of particular valuable areas and the application of specific commitments instead of a horizontal approach would be more suitable here. In addition, a lack of data about the efficiency and the gains of more differentiated approaches and little experience in testing such issues hinder the implementation of more differentiated payments.

In order to address these issues there is a need for long-term research which should help in:

- increasing the availability of suitable data and different data sources;
- providing increased knowledge in payment component assessment;
- assisting innovation and the use more variations of payment calculation methods;
- ensuring the harmonization of terminology.

Among other ideas which could help in the learning process, increasing the transparency of payment calculations and overcoming the issues mentioned above are:

- the provision of more publications on the best practice concerning payment calculations in the Member States;

- the imposition of a requirement to publish the processes of payment calculations in rural development programmes;
- the implementation of a general form of standard description of the RD measure including the linkage to payment calculation;
- the provision of basic recommendations about when and what type of calculation method could be used with different data availability conditions or what type of method is the most suitable and sustainable if the required data is not provided;
- support for the improvement of methodological experience among the staff responsible for payment calculation and RD measure design.

The application of the methodological grids for the calculation of payments in selected RD measures developed within the AGRIGRID project could be the 1st step in this process.

9. Annexes

Annex A - Application of the Natura 2000 payment grid (213)

Excel sheet with the step-by-step examples of the application of the methodological grid for Natura 2000 payments on agricultural land (the measure 213) including:

- lists of identified commitments;
- list of identified practices;
- overview of differentiation categories and elements;
- list of cost / revenue components for Practices approach.

Annex B - Application of the Natura 2000 payment grid (224)

Excel sheet with the step-by-step examples of the application of the methodological grid for Natura 2000 payments on forestry land (the measure 224) including:

- lists of identified commitments;
- list of identified practices;
- overview of differentiation categories and elements;
- list of cost / revenue components for Practices approach.