

**Study on the economic, social and environmental impact of the modulation  
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Case Study Report for Finland  
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## 1. Case Study Summary

*Due to low reference yield (and low SFP/ha) and small share of large farms in Finland, the compulsory modulation generates relatively small amount of funds for redistribution. On the other hand, the Pillar 2 Measures are very extensively applied (about 95 % of UAA covered by A-E Measure and LFA) and the potential for generating significant value added by the redistributed funds is more limited than in countries with less extensive application of Pillar 2. All the additional funds arising from modulation are used for the general Agri-Environmental Measure, why any specific beneficiaries can not be identified, but the scheme is applied more extensively than in the absence of these funds. As a whole, the net impact of modulation has been marginal so far, since it is purely an intra-sectoral recycling system. The increased bureaucracy caused by this recycling of money is not welcomed by farmers and administrators.*

## 2. Methodology and Information Sources Used

Modulation has not been a key issue in the Finnish agricultural and rural policies. Consequently, no specific studies or evaluations have been carried out. For this reason, the data for this evaluation is mostly based on interviews of key actors and elaboration of statistical data. The findings are then discussed and synthesised.

## 3. Research questions

### 3.1 General

1.1 What are the views of your Member State on Compulsory Modulation? Are they supportive of a greater transfer of funds between Pillar 1 and Pillar 2?

In Finland, the average level of Pillar 1 payments is very low due to low reference yield levels still forming the basis for the payments. The farms are also small in the European scale, why the funds subject to modulation are relatively limited. On the other hand, Finland is fully covered by the LFA scheme and more than 95 % of the UAA is covered by the Agri-Environmental Measure and, consequently, the Pillar 2 measures are already applied extensively. For this reason, the value added of redistributed funds is relatively low and, in this kind of setting, it appears not to be a very efficient policy measure. Increase in bureaucracy is a negative side-effect of any additional policy measure and this applies also to modulation.

Currently, Finland has no official position regarding the future developments of CM.

1.2 Are the current compulsory modulation rules seen as adequate for providing the necessary level of funds for Pillar 2 or are there specific issues associated with, for example:

- a. the CM rates,
- b. the franchise level;
- c. the requirement to co-finance and/or the level of co-financing required

Please specify what sorts of issues exist.

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The net impact of modulation in Finland is marginal. For example in 2006, the gross funds originating from modulation comprised about 11 % of the Agri-Environmental Measure, 3 % of the Pillar 2 total payments and 1 % of all agricultural and rural development funds, respectively (see Table 1). The genuinely *additional net funds* arising from modulation are smaller, since it is not clear whether the national co-financing is genuinely additional money that would not been available also in the absence of modulation. In 2007-2013, the gross funds originating from modulation comprise about 4 % of the Pillar 2 public funding. Due to low Pillar 1 payments, small farm size and extensive application of Pillar 2 measures, the whole issue of modulation is not very relevant for Finland. In most cases, the funds are cut and then returned to the very same persons and due to this setting, the perspective for deriving some additional benefits with more intensive modulation is not very promising.

Table 1. Key indicators of Modulation in Finland.

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### Application in 2006:

Cut of direct payments (Pillar 1)	21 mill. EUR
- Returned to small farms	11 mill. EUR
= Net cut of direct payments	10 mill. EUR
Redistributed funds to Finland (for Pillar 2)	15 mill. EUR
+ National co-financing	15 mill. EUR
= Modulation, gross funds	30 mill. EUR
Effective modulation (additional funds, net)	5 mill. EUR (15 mill. EUR – 10 mill. EUR)

Direct payments, total	538 mill. EUR
Pillar 2 measures (approx.), total	875 mill. EUR
- of which. Agri-Environmental Measure	277 mill. EUR
Nationally funded agricultural subsidies	606 mill. EUR
Total funds for rural development	2019 mill. EUR

Farm income (Family Farm Income)*)	893 mill. EUR
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Modulation funds (gross)/A-E Measure	11 %
- without national co-financing	5 %
Modulation funds (gross)/Pillar 2 measures	3 %
Modulation funds (gross)/rural development	1 %
Modulation funds (net)/A-E Measure	2 %
Modulation funds (net)/Pillar 2 measures	0.6 %
Modulation funds (net)/rural development	0.2 %

### Application in 2007-2013:

Redistributed funds to Finland**)	132 mill. EUR
+ National co-financing	132 mill. EUR
= Modulation, gross funds	264 mill. EUR

Pillar 2 Measures (RDP), public funds	6681 mill. EUR
- of which: Agri-Environmental Measure	2350 mill. EUR

Modulation funds, gross/A-E Measure	11 %
Modulation funds, gross/Pillar 2 Measures	4 %

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\*) Preliminary figure; MTT Taloustutkimus.

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\*\*\*) The figure for 2013 is an average of the years 2007-2012 (totalling 113.2 mill. EUR). All the figures in the table concern public funds only; private funds in the RDP for 2007-2013 are estimated to be 810 mill. EUR.

1.3 Are changes to the CM rules seen as desirable? If so, what changes would your Member State like to see and what is the rationale for this (i.e. economic / social / environmental reasons)?

Finland has no official position in this regard yet.

1.4 Are there likely to be any negative repercussions of higher rates of modulation?

As the net impact of modulation is very small, a more intensive modulation would not bring about major changes either. However, the competitiveness of Finnish agriculture is rather weak and very fragile, since the general (reference) income level is high, dependence on subsidies is high and the natural conditions are harsh, placing the attractiveness of farming under severe challenge. In this view, any changes may be sensitive for the continuity of farming and agricultural land use.

1.5 What are the main priorities for the use of Pillar 2 funding in your Member State?

The main priorities for Pillar 2 are 1) providing safeguards for continuity of farming - with associated social, economic and environmental impacts - in the whole country through nationwide application of the LFA Measure and 2) preserving the rather positive state of environmental through extensive application of the Agri-Environmental Measure. These two measures comprise 97.7 % of the Axis 2 funding, and 79.7 % of the Pillar 2 funding in 2007-2013 (public funds).

1.6 Is more money needed within Pillar 2 to achieve the main priorities set out within the RDP for your Member State?

Application of Axis 2 is rather extensive (81.6 % of the public funding of RDP for 2007-2013). Achievement of the main priorities set out in the RPD is not depending on the availability of modulation funds as such.

1.7 If yes, which priorities need additional funding?

..

1.8 Is there any information/ figures available on the levels of funding that would be needed within Pillar 2 to meet these additional needs/priorities?

..

1.9 Are there any alternative sources of funding that could be used to address these priorities?

..

### 3.2 *Budgetary distribution effects*

#### **Questions for the EU-15 case study Member States**

2.1 Under the 2007/13 programming period, what effects have the additional funds available within the EAFRD budget had on programme design? Has the increase in the Pillar 2 budget led to:

- a. The funds being distributed across all measures in the same way as the core EAFRD budget?

No.

- b. A greater investment in priority measures/measures already used?  
i) If yes, which ones?  
ii) If no, what was the reason for this (i.e. have some measures reached saturation point?)

Yes, all the additional funds have been devoted to the Agri-Environmental Measure.

- c. Investment in a broader range of measures? If yes, please identify which new measures were used and why?

No.

- d. Were the additional funds evenly distributed across all regions within your Member State? If not, why not?

Yes, the whole country is covered by the additional funds in a similar way, i.e. according to the basic rules of the Agri-Environmental Measure.

- e. Were certain schemes extended or amended in any way as a result of the additional funds?

The application of the Agri-Environmental Measure has been more extensive as a result of the additional funds.

- f. If yes, were there any changes to the way in which the scheme was targeted (for example in terms of spatial targeting, beneficiary type, eligibility criteria etc)

There were no changes in the detailed application of the Measure concerning e.g. aid levels or rules of application.

- g. In what ways did these changes to measures / in scheme design impact on your ability to achieve the programme objectives?

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The net impact of redistribution of funds is insignificant in Finland, but the application of the Agri-Environmental Scheme has been very slightly more extensive than without these funds.

- h. To what extent was there a need to ensure that the majority of those farmers affected by CM were able to recoup this money through Pillar 2 schemes?

Since the application of the Pillar 2 measures covers most of the farmers in Finland, this recycling effect is both automatic and unavoidable.

2.2 If the rate of compulsory modulation were to rise by an additional 8% by 2013 (3% for Slovenia and Poland from 2012), what would be the priorities for the use of additional funds in the future? Would the increase in the Pillar 2 budget be likely to lead to:

- a. The even distribution of the additional funds according to current EAFRD budget allocation across Axes and measures?

Finland has not yet any official position in this regard, but an even distribution is less probable than targeted use.

- b. A greater investment in priority measures? If yes, which ones? If no, what are the reasons for this?

Targeted use is the most probable solution, though no official position has been defined yet regarding the measures. There would be grounds for emphasising the LFA<sup>1</sup> and Agri-Environmental Schemes, because safeguarding the continuation of farming is seen to be important in a large country with extremely low population density – many environmental and rural benefits are deemed to be achieved effectively through farms, when e.g. customer dependent activities are difficult to develop “in the middle of nowhere”.

- c. Investment in a broader range of measures? If yes, please identify which new measures might be used and why.

Probably not, since a wide variety of measures as such is already under implementation.

- d. A change in the nature of the beneficiaries of Pillar 2 funding?

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<sup>1</sup> Even though the LFA is already at the ceiling allowed by the regulations, the fact that significant amount of national aid is needed to safeguard continuation of farming in Finland is needed reflects the shortcoming of the LFA scheme to recognize regional differences effectively. The main problem arises not only from the severity of natural handicaps but also from the high reference income that should be achieved for farming to be a competitive alternative for employment (which is not reflected properly in the LDA regime). So, there is an expectation that if this problematics was settled, then also a more appropriate LFA scheme would allow the disadvantages to become better covered and higher payment rates would be allowed, in which case the LFA measure would be a real choice for modulation funds as well.

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Probably not, since farms are seen as efficient intermediaries of many kinds of environmental and social benefits, taking into account the settlement structure of Finland. Again, no official position exists.

- e. Is there a need/desire to extend or amend existing schemes in any way and would this happen as a result of additional funds in Pillar 2?

No specific ambitions in this regard. Except for discussion around possibility/need for a more targeted Agri-Environmental Measure towards the most risky areas near waters, there are no specific ambitions to change the current structure of the RDP. The “environmentalists” would like to see more funds to be used for strictly environmental projects, like ceased arable farming on fields with slopes towards the waters.

- f. If yes, would this change the way in which the scheme was targeted (for example in terms of spatial targeting, beneficiary type, eligibility criteria etc)?

..

- g. Why do you see these changes in design / delivery of the schemes as being necessary?

..

- h. To what extent would these additional funds need to go back to the farming sector?

..

### 2.3 What are the re-distributional effects of moving money between Pillar 1 and Pillar 2 at national and/or regional level:

- a. between sectors (farming, forestry, tourism, industry and services); and
- b. within the farming sector – between different farm types and/or between different size of farm?

Please categorise your results for this question according to the ‘winners and losers’ framework attached in Annex 2 of the Case Study Guidelines document.

In Finland, modulation is currently an intra-sectoral recycling system. A relatively small group of large farms (mostly arable farms above the franchise level) have lost along the reduction in Pillar 1 payments and the Agri-Environmental Measure has been applied more extensively due to additional funds. Due to modulation, there are no changes in the eligibility criteria or amounts of the aid per ha or activity. For this reason, it is hard to identify any specific farmers who benefited from modulation. The UAA receiving Agri-Environmental aid has increased by 6 % in 2000-2006 due to clearing new field, termination of old discontinuation agreements and ownership changes, why also the gross amount of aid has risen correspondingly. The increase of the area has taken place mostly in the central parts of the country, on cereal farms and on large farms (50- ha). This is, however, a structural change, and the enlarged farms

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have been subject to increased cut of direct payments as well. For the vast majority of farmers, there has been no impact at all.

As the direct payments are cut at the large farms, these comprise the group of losers that actually get less funds than in the absence of modulation. Almost all of them will get the Agri-Environmental aid, but the conditions or amounts of the aid per hectare have not been changed due to modulation, so they will not get any “compensation” for the cut, whereas the small farms will get their money back through the franchise system.

### **Questions for the New Member States (Poland and Slovenia)**

2.4 What are the main priorities for the use of EAFRD funding in your Member State under the 2007-13 programming period?

What was the rationale for choosing the key measures under each Axis?  
What social, economic and/or environmental needs are they intended to meet?

What particular outcomes are they designed to achieve?

2.5 Is more money in EAFRD necessary to achieve the main priorities set out within the rural development programme for your Member State? If so, how much and for which priorities?

2.6 Are there alternative sources of funding that can be used to address these priorities?

2.7 When compulsory modulation is introduced in your Member State, assuming a rate of 3% from 2012, what would be the priorities for the use of these additional funds in within your rural development programme<sup>2</sup>?

- a. Would the increase in the Pillar 2 budget be likely to lead to:
  - A greater investment in priority measures? If yes, which ones?
  - Investment in a broader range of measures? If yes, please identify which new measures might be used and why.
- b. Is there a need/desire to extend or amend existing schemes in any way and would this happen as a result of additional funds in Pillar 2?
- c. If yes, would this change the way in which the scheme was targeted (geographically, in terms of beneficiary type, eligibility criteria, etc)?
- d. Why do you see these changes in design / delivery of the schemes as being necessary?

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<sup>2</sup> For the purposes of this questionnaire you should assume that the structure of the EAFRD stays similar to its current structure, with the potential addition of measures in relation to the ‘new challenges’ as set out in the Commission’s CAP Health Check draft proposals [Communication from the Commission to the Council and the European Parliament Preparing for the ‘Health Check’ of the CAP Reform (COM (2007) 722), 20.11.2007]

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- e. To what extent would these additional funds need to go back to the farming sector?
- f. Are there likely to be any negative repercussions of these rates of modulation?

2.8 What are the likely re-distributional effects of moving money between Pillar 1 and Pillar 2 at national and/or regional level:

- a. between sectors (farming, forestry, tourism, industry and services); and
- b. within the farming sector – between different farm types and/or between different size of farm?

### 3.3 *Effects on farm structures and farm viability*

3.1 What are the key trends of farm structural change in your Member State and what are the drivers of this?

The main trends of the farm structures in Finland have not changed significantly during the past few decades. The main trends are:

- steady decline of farm numbers (e.g. in 1995-2007 by 2.8 % as an annual average), higher in the more remote areas,
- steady increase in the average farm size (e.g. in 1995-2007 by 4.9 % as an annual average),
- relatively high decrease in livestock farm numbers (e.g. in 1995-2007 the number of milk producers -4.9 % as an annual average); many of these continue crop cultivation
- steady increase in the use of farm family labour input outside the basic farm activities (pluriactivity through salaried work and diversification through other entrepreneurial activities).

The main drivers of these changes have been 1) technological and organisational innovations on the farms (making it possible to manage a larger farm and release part of the labour input), 2) agricultural policy (making it economically or administratively difficult to expand farm business, or increasing bureaucracy and turning it less attractive as compared to other employment alternatives), 3) market demand (since the demand of agricultural products has been stagnant for decades, there have not been opportunities to exploit the potential in this activity), 4) risk and uncertainty (the increased, contradictory demands attached to numerous aid schemes and detailed control of traditionally “free peasants” have made people feel guilty about things that are hard to control)

3.2 To what extent have reductions in Pillar 1 payments exacerbated or constrained these trends; and

The cut of direct payments has made farming less attractive as an employment option, when there are hardly any identifiable benefits at the other side of the modulation equation. Until now, when the modulation has been rather limited,

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the impact of this has probably been more psychological than economic, however, and small in any case.

### 3.3 Have these effects been offset by the additional money available for Pillar 2?

At the programme level, yes.

### 3.4 To what extent has the reduction in Pillar 1 payments affected:

- a. Farm income;
- b. Capital investment decisions;
- c. Farm household income; and
- d. Longer-term farm viability

The reduction of direct payments has logically affected negatively to all these dimensions of farm business. Regarding farm income, the net reduction of payments (at the sector level) has been small, about 1.1 % of the total farm income (see Table 1), and probably slightly more on large farms above the franchise level. Regarding the capital investment decisions, the prospects of the other (more important) aid schemes (national subsidies under Art. 141 and Art. 142 of the Accession Treaty) and employment opportunities outside the farm have played a pronounced role, and the impact of modulation has until now been insignificant. Regarding the farm household income, the impact of modulation has been insignificant, since more than half of the farm family income originates outside the farm. Regarding the longer-term viability of farms, the signal of additional complication, manifested by the modulation scheme, will most probably be most important as long as the intensity of the scheme is not changed. Many of the farmers are very bored with huge and continuous increase in bureaucracy and complicatedness of the conditions of farming; as there are a lot of job openings in the near future also in the rural areas, the risk of decline in agricultural land use, rural population and vitality of the rural areas emerges for this psychological rather than economic reason. The rapid decline in animal husbandry is a clear signal of this phenomenon, since there would have been room (quotas, effective market demand) for additional milk production in recent years, for example.

Please break this down by farm type [arable, horticulture, wine, permanent crops, dairy, beef cattle, sheep and goats, pig/poultry, mixed] where possible.

### 3.5 Has the distribution of Pillar 2 funds differed between farm type and size (broken down by the measure groupings identified)?

All the important measures under Pillar 2 have been open for all types of farms and the uptake has been very high.

### 3.6 To what extent are those farms affected by reductions in Pillar 1 payments (categorised by farm type and size where possible) able to recoup this money through Pillar 2?

- a. Through which measures are they able to recoup this money?
- b. What is the net effect of this on farm income?

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It is hard to identify those farmers who have received “the additional money” for the Agri-Environmental Measure. The funds from modulation comprise about 11 % or 5 % (without national co-financing that could have been available anyway) of the total funds used for the Agri-Environmental Measure in 2006, for example. These funds are not, however, targeted to some specific measures or groups of beneficiaries. Some new measures have been introduced within the Agri-Environmental Scheme since start-up in 2007 (like reduction of nutrient load in Southern Finland and maintenance of permanent grass cover on peat soils) and the funds will relieve finance of these kinds of changes. Apparently, there are no ways to indicate that any farmer who has lost under Pillar 1 would be able to recoup the money under Pillar 2.

3.7 Of the measures that you have spent additional money on within Pillar 2 in your Member State, which have the greatest impact on farm structures and farm viability? What is the nature of these impacts?

All the money is used for the Agri-Environmental Measure. This has had no effects on farm structures (since the aid includes no differentiation in this regard) or farm viability.

3.8 What are the impacts of the availability of additional funds for these measures on national and regional trends of farm restructuring? Do they:

- a. Accelerate or slow-down these trends?
- b. Serve to maintain particular structural profiles relating to particular farming systems (for example HNV farming systems?)

Since the genuine net effect is insignificant and unidentifiable, there is hardly any observable impact either.

3.9 What are the impacts of these measures of additional funds for these measures on farm viability, specifically:

- a. Farm income
- b. Changes in the proportion of farm income made up from farming activities vs non-farming activities
- c. Capital investment decisions;
- d. Farm household income; and
- e. Longer-term farm viability

Since the genuine net effect is insignificant and unidentifiable, there is hardly any observable impact either.

**Table 1 Impact of CM on farm structure and farm income**

Please complete this Table by using the codes: (--), (-), (0), (+) and (++)

no	Indicator	Impact due to CM in the first pillar	Impact due to use of CM funds in measures of the second pillar	<i>Synthesis: impact of changes of first and second pillar due to CM</i>

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			Measure		
2.1	Utilized agricultural area (UAA) (ha)	(-) very small	Measure 111	0	<i>Net reduction of payments on some farms will cut profitability and attractiveness of farming</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
2.2	Share of arable area, permanent grass and permanent crops in UAA (%)	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut profitability and attractiveness of farming, increasing afforestation</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
2.3	Number of farms	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut profitability and attractiveness of farming</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
2.4	Average farm size (ha)	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut profitability and attractiveness of farming especially on large farms</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
2.5	Average farm size (ESU)	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut profitability and attractiveness of farming especially on large farms</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
2.6	Agricultural labour force (AWU)	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut profitability and attractiveness of farming, enhancing outflow of labour</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
2.7	Composition of	(-) very	Measure 111	0	<i>Since the largest farms</i>

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	farming types (% of total)	small	Measure 112	0	<i>are arable farms, their share is under most pressure due to reductions in payments</i>
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
2.8	Organic land as % of UAA	0	Measure 111	0	<i>No impact</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
2.9	Organic production as % of total agricultural production	0	Measure 111	0	<i>No impact</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
1.2.1	Farm income (per holding)	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut farm income</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
1.2.2	Farm household income (per holding)	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut farm income</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
1.2.3	Farm income (per Family Work Unit)	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut farm income</i>
			Measure 112	0	
			Measure 113	0	
			Measure 121	0	
			Other measures (please specify)	0	
1.2.4	Farm household income (per Family Work	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut farm income</i>
			Measure 112	0	
			Measure 113	0	

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	<i>Unit)</i>		Measure 121	0	
			<i>Other measures (please specify)</i>	0	

### ***3.4 Effects on the competitiveness of the agricultural sector***

4.1 What are the key factors that affect the competitiveness of the farming sector in your Member State?

The key factors affecting competitiveness of the farming sector in Finland are hard to identify, since competitiveness is an ambiguous concept and may become reflected in farm firm profitability, relative income level in agriculture, level of farm employment, maintenance of production volumes, and so on. In any case, the key factors contributing most of these indicators of competitiveness are:

- agricultural policy (subsidies are very important and more than farm income; bureaucracy decreases attractiveness),
- competences of farm population (allowing uptake of technological and organisational innovations).

4.2 To what extent do reductions in Pillar 1 payments affect these factors?

The existence of small group of losers and the increased bureaucracy (cut of payments, refund of cuts for farms below the franchise level next year as a new variety of numerous subsidies, management of refund from the EU) both have a negative impact on the factors affecting competitiveness of the farming sector, since incentives for the agricultural activity decreases.

4.3 Have these effects been offset by the additional money available for Pillar 2?

At the global level (finance), yes. The situation, however, is complicated, because it is possible to indentify losers but not winners.

4.4 Does the reduction in Pillar 1 payments result in a change in levels of production or prices of commodities?

Yes, decreased profitability will potentially decrease production, but the effect is very small with the current rates of CM.

4.5 If so, does this result in any upstream or downstream effects?

The reduction of production most probably takes place on large farms<sup>3</sup> that produce mainly cereals; however, until now the effect has been insignificant

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<sup>3</sup> in financial terms, the cut under Pillar I concerns mainly SFP, since there are few animal farms received significant CAP payments above that. In the Finnish circumstances, the franchising becomes effective at the size of 20-30 ha (depending on the region) and, logically, increases along the farm size.

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(if existed) and can not become observed on the markets, where several forces operate simultaneously.

4.6 Of the measures that you have spent additional money on within Pillar 2 in your Member State, which have the greatest impact on the competitiveness of the agriculture and agri-food sector? What is the nature of these impacts?

All the funds arising from CM have been devoted to the Agri-Environmental Measure. This has hardly had any impacts on the competitiveness of farming or the agri-food sector.

4.7 What are the impacts of the availability of additional funds for these measures in relation to the:

- a. Economic efficiency of the sector
- b. Economic performance of the sector – particularly in relation to investment in infrastructure and new technologies;
- c. Production capacity
- d. Development of new markets and/or new products
- e. Diversification activities

Please note if there is considered to be deadweight associated with any of these measures.

No impact. The additional funds have been very small and have not caused any changes in the application of the measure in terms of conditions or payments rates. A more extensive application of the general Agri-Environmental Scheme has possibly enhanced diversification activities on farms which has some environmental focus, but this effect can not be identified and is mainly speculative.

4.8 If not covered in 4.6 and 4.7 above, what are the impacts of the availability of additional funds on the competitiveness of the agriculture and agri-food sector on the following measures:

- a. Modernisation of agricultural holdings;
- b. Adding value to agricultural and forestry products;
- c. Infrastructure relating to the development and adaptation of agriculture and forestry.

Not used for these purposes.

4.9 What impacts have investments in physical capital<sup>4</sup>, specifically, had on the competitiveness of the agriculture sector?

Not used for these purposes (but, in general, these are important).

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<sup>4</sup> Physical capital is taken to be promoted by measures including farm modernisation; improving the economic value of the forest; adding value to agricultural and forestry products; cooperation for development of new products, processes and technologies in the agricultural and food sector; improving and developing infrastructure related to the development and adaptation of agriculture and forestry; restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention actions

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4.10 What impacts have investments in human capital<sup>5</sup>, specifically, had on the competitiveness of the agriculture sector?

Not used for these purposes (but, in general, these are very important).

**Table 2: Impact of CM on the competitiveness of the agricultural sector**

Please complete this Table by using the codes: (--), (-), (0), (+) and (++)

no	Indicator	Impact due to CM in the first pillar	Impact due to use of CM funds in measures of the second pillar		Synthesis: impact of changes of first and second pillar due to CM
1.1.1	GVA in the primary sector	(-) very small	Measure 111	0	<i>Reduction of payments on some farms will cut GVA and availability of additional funds for A-E Measure will increase GVA; the effects are very small and the indirect effects negligible, however</i>
			Measure 121	0	
			Measure 214	+	
			Other measures (please specify)	0	
1.1.2	GVA in the food industry	(-) very small	Measure 123	0	<i>Reduction of payments on some farms will potentially cut production and GVA in food industry, but the effects are negligible</i>
			Measure 124	0	
			Measure 125	0	
			Other measures (please specify)	0	

### 3.5 Employment effects

<sup>5</sup> Human capital is taken to be promoted by measures including training, information and diffusion of knowledge, farmer co-operation, setting up of young farmers; early retirement of farmers and farm workers; use by farmers and forest holders of advisory services;

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5.1 What are the general trends in terms of employment within the farm sector and within the broader rural economy in your Member State?

The employment in agriculture has declined steadily during the past few decades (e.g. in 1995-2004 by 3.6 % as an annual average). The outflow of labour has been caused by the increased labour productivity in agriculture and forestry (with stagnating demand) and the released labour force has become absorbed by the expanding service sector, located in population concentrations (services are produced and consumed simultaneously). This has given rise to polarisation, where province capital towns with their pendeling areas have been the only “winners” and all the rural areas have been “losers” in terms of employment and population numbers.

5.2 To what extent have reductions in Pillar 1 payments exacerbated or constrained these trends; and

Potentially, the reduction of payments and decreased profitability of farming has increased the outflow of labour, but the impact has been insignificant until now with the low rates of CM.

5.3 Have these effects been offset by the additional money available for Pillar 2?

At the global level, yes. However, as there are identifiable losers and unidentifiable winners, the individual level impacts may have been different. In any case, the net effects are very small.

5.4 Have the reductions in Pillar 1 payments, and the consequent effects on farm income, led to a change in the nature of on-farm labour use, in relation to:

- a. the number of staff employed;
- b. the use of off-farm contractors;
- c. the use of family labour.

Until now, the impacts have been insignificant. Logically, the impact would be negative for all these. Salaried labour force is not used on Finnish farms very extensively.

5.5 Of the measures that you have spent additional money on within Pillar 2 in your Member State, which have the greatest impact on employment and labour use within the agriculture sector? What is the nature of these impacts?

All the funds are used for the Agri-Environmental Measure. Potentially, this has a slight positive impact on keeping up agricultural employment by generating income for farmers, but the impact has been marginal (additional income (net) arising from modulation comprises 0.4 % of farm income in 2006; the redistributed funds correspond to 1.5 % of farm income in 2006, respectively).

5.6 Which of the Pillar 2 measures implemented in your Member State have the greatest impact on employment and labour use within the broader rural economy? What is the nature of these impacts?

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Concerning all the Pillar 2 measures, the LFA payments have the largest contribution (about 43 % of farm income arises from these), followed by the Agri-Environmental payments (about 30 % of farm income arises from these). Though these have asked cost investments and other costs from farms, they have also contributed to farm income and maintained employment in rural areas. The impact of the other measures within Pillar 2 is marginal due to their very small share of the funds (2.3 % in 2007-2013).

5.7 What impacts has the availability of additional funds for the Pillar 2 measures had in relation to:

- a. the nature of labour use on the farm (number of staff directly employed, use of off-farm contractors, use of family labour) – please specify;
- b. working conditions - have these improved or deteriorated; and
- c. the creation of employment opportunities. If so, what sort of new jobs have been created, and in which sectors?

Potentially, any additional funds have a positive employment effect. Since the funds have been used for the general scheme, there are hardly any identifiable impacts and, in any case, they are marginal due to the small amount of funds.

5.8 If not covered in 5.5 and 5.7 above, what are the impacts of the availability of additional funds through Pillar 2 on employment on the following measures:

- co-operation for development of new products, processes and technologies in the agriculture and food sector and in the forestry sector; and
- ‘setting up of management, relief and advisory services’
- Support for business creation and development’;
- Diversification into non-agricultural activities;
- Encouragement of tourism activities.
- Agri-environment
- LFA
- Afforestation

..

**Table 3: Impact of CM on employment**

Please complete this Table by using the codes: (--), (-), (0), (+) and (++)

no	Indicator	Impact due to CM in the first pillar	Impact due to use of CM funds in measures of the second pillar		<i>Synthesis: impact of changes of first and second pillar due to CM</i>
1.3.1	Share of part-time farm holders (% of total)	(-) Very small	Measure 311	0	<i>Large farms (in Finland) subject to effective cut of payments are often part-time crop farms</i>
			Measure 312	0	
			Measure 313	0	
			LEADER	0	

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			<i>Other measures (please specify)</i>	0	
1.3.2	Share of farm holders with other gainful activities (% of total)	0	Measure 311	0	<i>No identifiable impact</i>
			Measure 312	0	
			Measure 313	0	
			LEADER	0	
			<i>Other measures (please specify)</i>	0	
1.3.3	Total employment (AWU)	0	Measure 311	0	<i>No identifiable impacts</i>
			Measure 312	0	
			Measure 313	0	
			LEADER	0	
			<i>Other measures (please specify)</i>	0	
1.3.4	Agricultural employment (AWU)	0	Measure 311	0	<i>No identifiable impacts</i>
			Measure 312	0	
			Measure 313	0	
			LEADER	0	
			<i>Other measures (please specify)</i>	0	
1.3.5	Industrial employment (AWU)	0	Measure 311	0	<i>No identifiable impacts</i>
			Measure 312	0	
			Measure 313	0	
			LEADER	0	
			<i>Other measures (please specify)</i>	0	
1.3.6	Services employment (AWU)	0	Measure 311	0	<i>No identifiable impact</i>
			Measure 312	0	
			Measure 313	0	

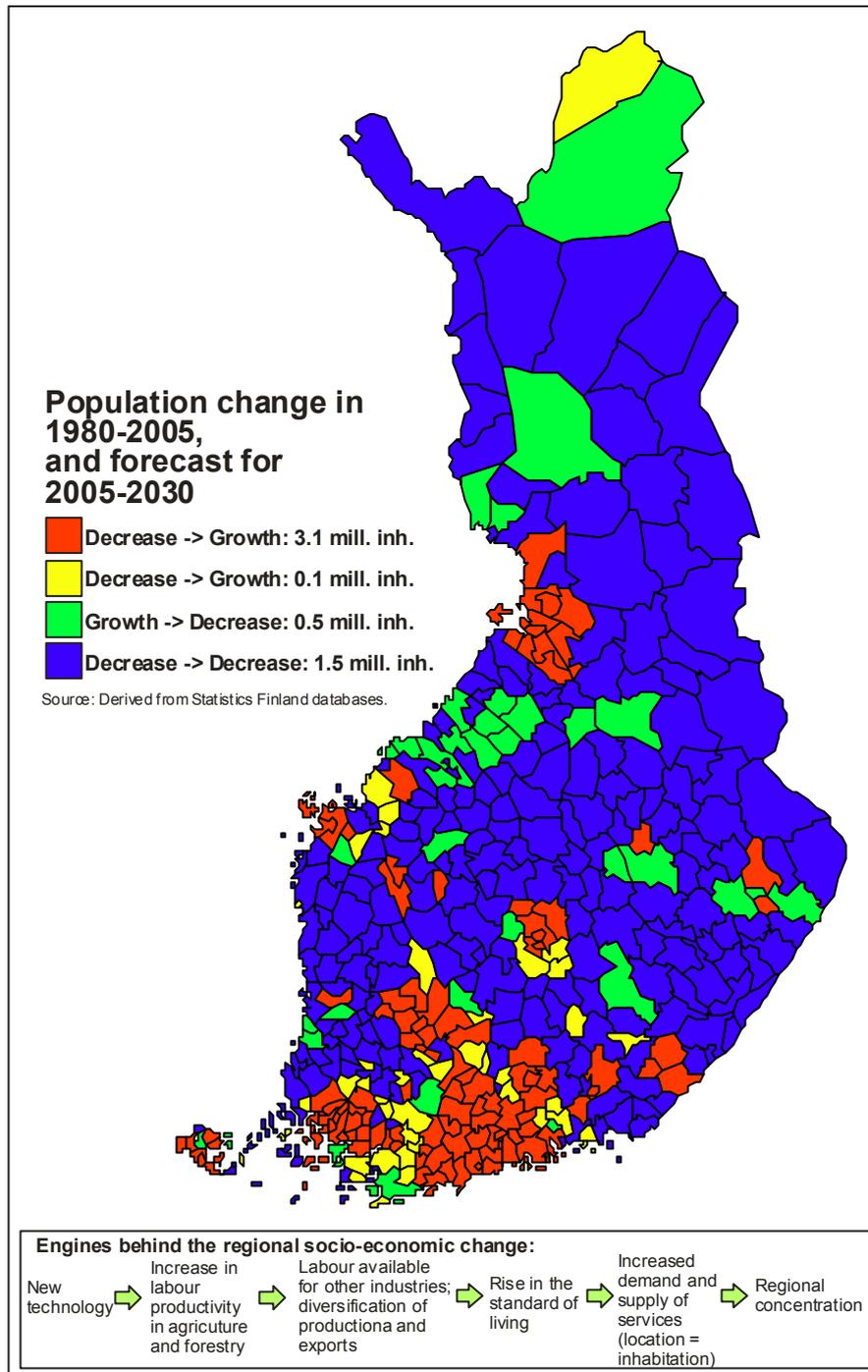
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			LEADER	0	
			<i>Other measures (please specify)</i>	<i>0</i>	

### **3.6 *Effects on quality of life in rural areas***

6.1 Briefly, as a result of your findings so far: to what extent do the general trends identified for your Member State under the previous themes (in relation to farm restructuring, farm viability, employment and the environment) impact upon the quality of life within rural areas?

All these trends have an impact on the quality of life in rural areas, even though “quality of life” is a multifaceted construct. Probably, in Finnish circumstances, the economic and social trends have a more pronounced role than the environmental trends, because the impacts of low population density and long distances become more pronounced, whereas the quality of the environment is generally good. Along the socio-economic development (see figure) many young people have moved to the capital region or to provincial capital towns, why the population base of the rural areas has become very biased (age, education). Consequently, the resource base to generate positive change and provide diversified services has deteriorated continuously. In many municipalities the economic and social base has become very fragile, when the population base is around 1-8 inhabitants/km<sup>2</sup> (in the “blue” municipalities on the map). At this end, environment is not the key concern as compared to search of employment, availability and accessibility of services for the elderly people, and promise positive future of any kind. All the measures that guarantee continuation of farming in these kinds of areas, therefore, keep up the economic and social fabric of the area, are seen as valuable.



Source: Kuhmonen & Niittykangas 2008.

6.2 Briefly, as a reflection from your findings so far: to what extent have reductions in Pillar 1 payments exacerbated or constrained these trends?

The impact so far has been marginal, but generally any cut of farm subsidies will have potentially negative effects in regions with limited local demand of labour and limited availability of business opportunities.

6.3 Briefly, as a reflection from your findings so far: have these effects been offset by the additional money available for Pillar 2?

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At the global level (agricultural sector; total finance) these have been offset, since the total funding has not been reduced, but at the individual level the effects are not that clear; in any case, the effects have been very small so far.

6.4 To what extent is compulsory modulation leading to money moving out of the agricultural sector and into other sectors of the rural economy?

Modulation has been purely intra-sectoral recycling of money.

6.5 What are the implications of this for the quality of life of rural areas?

The quality of life in rural areas has not changed in any observable way due to this system.

6.5 Which of the Pillar 2 measures implemented in your Member State have the greatest impact on the quality of life in rural areas? What is the nature of these impacts?

All the funds have been used for the Agri-Environmental Measure. It is hard to see any quality of life effects due to this very small amount of money, since quality of environment is not bad and, as such, not a critical factor in the quality of life in rural areas.

6.6 What impacts has the availability of additional funds for the Pillar 2 measures had in relation to:

- a. The composition of rural communities;
- b. the availability and quality of amenities for communities within rural areas;
- c. the level of capacity building within rural communities;
- d. the provision of a clean, attractive and healthy environment;
- e. provision of access to the countryside.

The very marginal effect the additional funds have possibly carried along could become attached to point d, whereas the other options are less relevant (e.g. access to the countryside is not a problem in Finland, and the use of funds has not really contributed to changed composition of rural communities or provision of amenities or capacity building in rural areas).

6.7 If not covered in 6.5 and 6.6 above, what are the impacts of the availability of additional funds through Pillar 2 on the quality of life in rural areas on the following measures:

- Basic services for the economy and rural population;
- Village renewal and development;
- Support for business creation and development; and
- The application of the Leader approach.

Not used for these purposes.

### **Table 4: Impact of CM on quality of life**

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Please complete this Table by using the codes: (--), (-), (0), (+) and (++)

no	Indicator	Impact due to CM in the first pillar	Impact due to use of CM funds in measures of the second pillar		<i>Synthesis: impact of changes of first and second pillar due to CM</i>
1.4.1	Actions to support basic services for the economy and rural population	0	Measure 321	0	<i>No identifiable impacts.</i>
			Measure 322	0	
			Measure 323	0	
			LEADER	0	
			<i>Other measures (please specify)</i>		
1.4.2	Village renewals	0	Measure 321	0	<i>No impacts.</i>
			Measure 322	0	
			Measure 323	0	
			LEADER		
			<i>Other measures (please specify)</i>	0	
1.4.3	Actions to support rural heritage	0	Measure 321	0	<i>No identifiable impacts.</i>
			Measure 322	0	
			Measure 323	0	
			LEADER		
			<i>Other measures (please specify)</i>	0	
1.4.4	Number of tourists	0	Measure 321	0	<i>No identifiable impacts.</i>
			Measure 322	0	
			Measure 323	0	
			LEADER		
			<i>Other measures (please specify)</i>	0	
1.4.5	Internet penetration	0	Measure 321	0	<i>No impacts.</i>
			Measure 322	0	
			Measure 323	0	

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			LEADER		
			<i>Other measures (please specify)</i>	0	

### 3.7 *Environmental effects*

7.1 What are the general environmental trends and priorities in your Member State, in particular in relation to resource protection, biodiversity and climate change?

Finland is a land of forests (86.5 % of the total land area) and waters (22.2 % of the total territory), whereas UAA covers only 7.6 % of the land area. There are about 188,000 lakes (larger than 500 m<sup>2</sup>) and 647 rivers (longer than 10 km) and many of the lakes are shallow. For this reason, the protection of waters is very much emphasised (also in the RDP). Protection of other resources and safeguarding biodiversity are concerns also, but carry more regional or local than national implications. Dampening climate change is a global concern, fully recognized to become mitigated in addition to the national concerns.

7.2 To what extent have reductions in Pillar 1 payments exacerbated or constrained these trends?

It is hard to identify any impact so far. In general, increase in decoupled payments (as compared to coupled subsidies or market income) should give rise to less intensive farming. The reduction of these payments, in principle, increases the share of market income in the total revenues from farming, and should therefore intensify farming. With the current application of CM (and small share of farms subject to it), the impact is more or less hypothetical.

7.3 Have these effects been offset by the additional money available for Pillar 2?

At the global level, yes. The Agri-Environmental Measure has been applied more extensively, and the impact of that for the environment is positive. This impact is also marginal with the current modulation regime, however.

7.4 To what extent do different levels of decreases in P1 payments result in changes to land management practices? For example:

- a. Do reductions in P1 payments lead to more efficient or targeted use of inputs (fertilisers, stock etc);
- b. Do they lead to intensification or concentration of production;
- c. Does this affect farmers' capacity to undertake management practices that are environmentally beneficial for which they do not currently receive Pillar 2 payments?

Until so far, the effects have been very marginal, if existed. Reduction of payments should basically intensify farming through the changed composition

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of incentives (share of market revenues increase in relation to decoupled payments).

7.5 Please break down your responses by farm type and size where possible and highlight if these impacts are related to a specific geography or farming system (i.e. arable, intensive grazing, extensive grazing, upland).

The only group of farms subject to reduction of payments is comprised by a small group (in Finland) of large farms, which most often produce mainly cereals (extensive grazing hardly exists in Finland despite extensive application of LFA!). Most of these farms are in Southern Finland. The impact, until now, has been marginal, however.

7.6 What are the likely environmental impacts of the redistribution effects of the shift of funds between different farm types and sizes as identified under Question 2.3?

The effects are very small and speculative, but if they existed, they would penalise crop farming (not as such, but because the losers are large farms cultivating mostly cereals), whereas it is impossible to identify any specific beneficiary, when the funds are used for the general Agri-Environmental Scheme.

7.7 Which of the Pillar 2 measures implemented in your Member State have the greatest impact on the environment? What is the nature of these impacts?

Without doubt, the Agri-Environmental Measure has had the most significant environmental impacts by covering more than 95 % of the UAA and including several environmental requirements for the participating farmers (soil analysis, filter stripes, maintenance of diversity etc.). Also the LFA has an extensive environmental impact, when the scheme covers the whole country.

7.8 How does the availability of additional funds for the Pillar 2 measures affect the nature and extent of environmental benefits delivered with particular reference to effects on:

- a. Resource protection (water and soils)
- b. Biodiversity
- c. Climate change

When the additional funds have been used for the general scheme, it is hard to identify any specific effects arising from these funds. The approach in the Finnish Agri-Environmental Measure can be described as broad: each participants will apply several measures simultaneously in order to tackle several environmental dimensions. As such, all the points (a-c) become covered. The protection of waters is regarded as an important goal due to extensive presence of waters.

For example, in the old Agri-Environmental scheme in 2000-2006 (very much the same as the new one for 2007-2013) there were five obligatory measures for all farms (e.g. documentation, provisions on use of fertilizers and pesticides, filter stripes and biodiversity) plus one for animal farms (provisions

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on storage of manure). In addition, at least one optional measure out of 10 alternatives had to be chosen (e.g. more precise use of fertilizers or green cover of fields during winter time and light tilling). In addition, there were 12 special measures that could be agreed separately (e.g. protective belts along the waters, organic farming, upkeep of traditional biotopes). The most popular optional measures were “green cover during winter time and light tilling” (55 % of farms receiving Agri-Environmental aid in 2005), “more precise use of fertilizers” (21 %) and “refinement of the washing waters of the milking equipments” (14 %). The most popular special measures, based on separate agreement, were in 2005 “intensified utilization of manure” (7 %), organic crop farming (6 %) and “upkeep of traditional biotopes” (4 %).

7.9 To what extent do the additional funds through Pillar 2 result in the re-focusing of the use of existing measures either by affecting:

- a. Eligibility criteria?
- b. Targeting?
- c. The use of additional measures?

In this regard, these in no impact.

7.10 If not covered in 7.7-7.9 above, what are the impacts of the availability of additional funds for the environment through the following measures:

- Axis 2:
  - i. Agri-environment payments;
  - ii. handicap payments in mountain areas and
  - iii. payments in other areas with handicaps;
  - iv. First afforestation of agricultural land as well as
  - v. Natura 2000 payments and
  - vi. forest-environment payments
- Axis 3: ‘Conservation and upgrading of the rural heritage’
- Axis 1: Measures which lead to investment in environmentally beneficial investments (such as investments in renewable energy).

All the funds are used for i).

7.11 Have negative environmental impacts been experienced from investments in non-environmentally focused measures? If so, what are these environmentally damaging effects and which measures are these associated with?

No, since all the funds have been used for the Agri-Environmental Measure.

**NB:** Given that the agri-environment measure is the only compulsory measure within P2 and expenditure on this measure currently makes up 18% of expenditure across the EU-27, gathering empirical data on the benefits of agri-environment schemes through the case studies is going to be extremely important.

### Table 5: Impact of CM on environment

Please complete this Table by using the codes: (--), (-), (0), (+) and (++)

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no	Indicator	Impact due to CM in the first pillar	Impact due to use of CM funds in measures of the second pillar		<i>Synthesis: impact of changes of first and second pillar due to CM</i>
3.1	Land cover (% area in agricultural/forest/natural/artificial classes)	(-) small	Measure 211 +212	0	<i>Reduction of the payments has cut profitability of farming, but more extensive application of the A-E Measure has had the opposite effect; marginal impact</i>
			Measure 213	0	
			Measure 214	(+) small	
			Measure 221	0	
			Other measures (please specify)	0	
3.2	% UAA in non-LFA/LFA	0	Measure 211 +212	0	<i>The whole country is covered by the LFA Measure</i>
			Measure 213	0	
			Measure 214	0	
			Measure 221	0	
			Other measures (please specify)	0	
3.3	% UAA for extensive arable crops <sup>1)</sup>	(-) small	Measure 211 +212	0	<i>Reduction of payments concerns mostly large cereal farms; the general A-E Measure favours extensive cultivation; marginal impact</i>
			Measure 213	0	
			Measure 214	(+) small	
			Measure 221	0	
			Other	0	

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			measures (please specify)		
3.4	% UAA for extensive grazing <sup>2)</sup>	0	Measure 211 +212	0	<i>Extensive grazing hardly exists in Finland</i>
			Measure 213	0	
			Measure 214	0	
			Measure 221	0	
			Other measures (please specify)	0	
3.5	% UAA under Natura 2000	0	Measure 211 +212	0	<i>No impact, Natura 2000 is not connected to modulation</i>
			Measure 213	0	
			Measure 214	0	
			Measure 221	0	
			Other measures (please specify)	0	
3.6	% UAA under agri-environmental support (measure 214)	0	Measure 211 +212	0	<i>All the additional funds have been used for the general A-E Measure; still marginal impact</i>
			Measure 213	0	
			Measure 214	(+) small	
			Measure 221	0	
			Other measures (please specify)	0	

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3.7	Forest area (ha)	(+) small	Measure 122	0	<i>Reduction of payments makes afforestation more attractive; marginal impact</i>
			Measure 221	0	
			Measure 222	0	
			Measure 223	0	
			Measure 224	0	
			Measure 225	0	
			Measure 226	0	
			Other measures (please specify)	0	
3.8	% territory designated as Nitrate Vulnerable Zone	0	Measure 211 +212	0	<i>No impact.</i>
			Measure 213	0	
			Measure 214	0	
			Measure 221	0	
			Other measures (please specify)	0	
3.9	% irrigated UAA	0	Measure 211 +212	0	<i>An extremely small share of UAA in Finland is irrigated; no impact.</i>
			Measure 213	0	
			Measure 214	0	
			Measure 221	0	
			Other	0	

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			measures (please specify)		
3.10	Production of renewable energy	0	Measure 211 +212	0	<i>No impact.</i>
			Measure 213	0	
			Measure 214	0	
			Measure 221	0	
			Other measures (please specify)	0	
3.11	Nutrients surplus N, P, K (per ha)	(+) small	Measure 211 +212	0	<i>Reduction of direct payments in farming revenue may increase the optimal amount of nutrient application; the conditions of the A-E Measure have reduced application of nutrients; the effects are hypothetical</i>
			Measure 213	0	
			Measure 214	(-) small	
			Measure 221	0	
			Other measures (please specify)	0	
3.12	Change in trend in biodiversity decline as measured by the farmland bird species	0	Measure 211 +212	0	<i>Part of the terms of A-E Measure under more extensive application, but very marginal effect</i>
			Measure 213	0	
			Measure 214	(+) small	
			Measure 221	0	
			Other measures (please specify)	0	

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3.13	High nature value farmland and forestry (ha)	0	Measure 211 +212	0	<i>No impact.</i>
			Measure 213	0	
			Measure 214	0	
			Measure 221	0	
			<i>Other measures (please specify)</i>	<i>0</i>	

### 3.8 Overall assessment

8.1 Given the whole range of impacts stemming from compulsory modulation, do you think that benefits that can be attributed to Pillar 2 offset any negative impacts associated with reductions in Pillar 1 payments?

The problem in the case of Finland arises from the fact that there are identifiable losers (reduction of payments on large farms), but no identifiable beneficiaries (since the funds are used for the general A-E Measure). In any case, the funds are recycled within the farm sector and the net impacts have been insignificant at the sector level.

## 4. Conclusions and synthesis of results

Due to low reference yield (and low SFP/ha) and small share of large farms in Finland, the compulsory modulation generates relatively small amount of funds for redistribution. On the other hand, the Pillar 2 Measures are very extensively applied (about 95 % of UAA covered by A-E Measure and LFA) and the potential for generating significant value added by the redistributed funds is more limited than in countries with less extensive application of Pillar 2. All the additional funds arising from modulation are used for the general Agri-Environmental Measure, why any specific beneficiaries can not be identified, but the scheme is applied more extensively than in the absence of these funds. As a whole, the net impact of modulation has been marginal so far, since it is purely an intra-sectoral recycling system. The increased bureaucracy caused by this recycling of money is not welcomed by farmers and administrators.

## 5. Completed Economic Model questionnaires

**The change estimates are extremely difficult to make in Finland. Even though modulation can be argued to have led to more extensive application of the Agri-**

**Environmental Measure, the marginal effects are complicated. Finland applies an integrated approach to agricultural subsidies, with significant nationally funded aid schemes. The SFP (Cross-Compliance), the LFA Measure, the various national aid schemes and the Agri-Environmental Measure all carry environmental obligations for farmers, why isolation of this kind of marginal impact of untargeted, small additional funding is problematic.**

## **2. MODERNISATION OF AGRICULTURAL HOLDINGS (121)**

### **2.1. Does the measure affect production of main output at the farm level?**

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms <sup>1</sup>	kg per farm	0	0
Arable crops	kg per farm	0	0
Vegetables and permanent crops	kg per farm	0	0
Cattle activities, MILK	kg per farm	0	0
Cattle activities, BEEF	kg per farm	0	0
Other animals	kg per farm	0	0

1. If you can not distribute the effects over the farm types, you can complete the row of 'all farms'

### **2.2. Does the measure affect productivity (yield) of main output per sub-sector/farm type?**

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms	Kg/ha/year/farm	0	0
Arable crops	Kg/ha/year/farm	0	0
Vegetables and permanent crops	Kg/ha/year/farm	0	0
Cattle activities, MILK	Kg/head/year/farm	0	0
Cattle activities, BEEF	Kg/head/year/farm	0	0
Other animals	Kg/head/year/farm	0	0

### **2.3. Are changes in input per ha or head due to the measure proportional to changes in output per ha or head?**

No impact (not used for this in Finland).

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If yes, please go to question 3.1.

If no, please continue with question 2.4.

We distinguish between the following inputs: fertilisers (N, P and K), feeding stuffs (from roughage and concentrates), other variable inputs and labour.

**2.4 Does the measure affect costs per input category per average farm (increase or decrease in Euro per average farm)**

Input-category	Total (Euro)	Number of farms affected, 2007-2013
Fertilisers	0	0
Feeding stuffs	0	0
Other variable inputs	0	0
Labour	0	0

**2.5 Does the measure affect nitrogen (N) input use per hectare per farm type**

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		0	0
Arable crops	Kg N/ha/farm	0	0
Vegetables and permanent crops	Kg N /ha/farm	0	0
Cattle activities, MILK	Kg N/ha/farm	0	0
Cattle activities, BEEF	Kg N/ha/farm	0	0
Other animals	Kg N/ha/farm	0	0

**2.6 Does the measure affect Phosphorous (P) input use per hectare per farm type**

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		0	0
Arable crops	Kg P/ha/farm	0	0
Vegetables and permanent crops	Kg P/ha/farm	0	0
Cattle activities, MILK	Kg P/ha/farm	0	0
Cattle activities, BEEF	Kg P/ha/farm	0	0
Other animals	Kg P/ha/farm	0	0

**2.7 Does the measure affect Potassium (K) input use per hectare per farm type**

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		0	0
Arable crops	Kg K/ha/farm	0	0
Vegetables and permanent crops	Kg K/ha/farm	0	0
Cattle activities, MILK	Kg K/ha/farm	0	0

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Cattle activities, BEEF	Kg K/ha/farm	0	0
Other animals	Kg K/ha/farm	0	0

### 2.8 Does the measure affect input of feeding stuffs per farm type

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		0	0
Arable crops	Kg /head/farm	0	0
Vegetables and permanent crops	Kg/head/farm	0	0
Cattle activities, MILK	Kg/head/farm	0	0
Cattle activities, BEEF	Kg/head/farm	0	0
Other animals	Kg/head/farm	0	0

### 2.9 Does the measure affect use of other variable inputs (seeds, pesticides, water, etc; please specify and include additional tables if necessary ) per farm type

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		0	0
Arable crops	Euro/ha/farm	0	0
Vegetables and permanent crops	Euro/ha/farm	0	0
Cattle activities, MILK	Euro/head/farm	0	0
Cattle activities, BEEF	Euro/head/farm	0	0
Other animals	Euro/head/farm	0	0

### 2.10 Did the measure affect labour use per farm type (including early retirement schemes)

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		0	0
Arable crops	AWU/farm	0	0
Vegetables and permanent crops	AWU/farm	0	0
Cattle activities, MILK	AWU/farm	0	0
Cattle activities,	AWU/farm	0	0

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BEEF			
Other animals	AWU/farm	0	0

### 3. NATURA 2000 PAYMENTS AND PAYMENTS LINKED TO DIRECTIVE 2000/60/EC (WFD) (RD MEASURE 213) AND AGRI-ENVIRONMENTAL PAYMENTS (RD MEASURE 214)

#### 3.1 Do the (combined) measures affect average costs per input category per farm (increase or decrease in Euro per average farm)

Input category	Total (Euro)	Number of farms affected, 2007-2013
Fertilisers	?	4,000
Feeding stuffs	0	0
Other variable inputs	?	<4,000
Labour	?	?

1. includes all investments e.g. slurry storage capacity.

#### 3.2 Do the measures affect nitrogen (N) input use per hectare per farm type

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		?	4,000
Arable crops	Kg N/ha/farm	?	?
Vegetables and permanent crops	Kg N /ha/farm	?	?
Cattle activities, MILK	Kg N/ha/farm	?	?
Cattle activities, BEEF	Kg N/ha/farm	?	?
Other animals	Kg N/ha/farm	?	?

#### 3.3 Do the measures affect Phosphorous (P) input use per hectare per farm type

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		?	4,000
Arable crops	Kg P/ha/farm	?	?
Vegetables and permanent crops	Kg P/ha/farm	?	?
Cattle activities, MILK	Kg P/ha/farm	?	?
Cattle activities, BEEF	Kg P/ha/farm	?	?
Other animals	Kg P/ha/farm	?	?

**3.4 Do the measures affect Potassium (K) input use per hectare per farm type**

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		?	4,000
Arable crops	Kg K/ha/farm	?	?
Vegetables and permanent crops	Kg K/ha/farm	?	?
Cattle activities, MILK	Kg K/ha/farm	?	?
Cattle activities, BEEF	Kg K/ha/farm	?	?
Other animals	Kg K/ha/farm	?	?

**3.5 Do the measures affect input of feeding stuffs per farm type**

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		0	0
Arable crops	Kg /head/farm	0	0
Vegetables and permanent crops	Kg/head/farm	0	0
Cattle activities, MILK	Kg/head/farm	0	0
Cattle activities, BEEF	Kg/head/farm	0	0
Other animals	Kg/head/farm	0	0

**3.6 Do the measures affect use of other variable inputs (seeds, pesticides, water, etc; please specify and include additional tables if necessary ) per farm type**

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms		?	<4,000
Arable crops	Euro/ha/farm	?	?
Vegetables and permanent crops	Euro/ha/farm	?	?
Cattle activities, MILK	Euro/head/farm	?	?
Cattle activities, BEEF	Euro/head/farm	?	?
Other animals	Euro/head/farm	?	?

**3.7 Do the measures affect labour use per farm type (including early retirement schemes)**

Sub-Sector/Farm	Unity of	Percentage	Number of farms
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type	measurement	change	affected, 2007-2013
All farms		?	?
Arable crops	Awu/farm	?	?
Vegetables and permanent crops	Awu/farm	?	?
Cattle activities, MILK	Awu/farm	?	?
Cattle activities, BEEF	Awu/farm	?	?
Other animals	Awufarm	?	?

### 3.8 Are changes in output per ha or head proportional to changes in input per ha or head?

X yes (more yes than no...)

O no

If yes, you can stop

If no, please continue with question 3.9.

### 3.9. Do the measures affect production of main output at the farm level?

Sub-Sector/Farm type	Unity of measurement	Percentage change	Number of farms affected, 2007-2013
All farms	kg per farm		
Arable crops	kg per farm		
Vegetables and permanent crops	kg per farm		
Cattle activities, MILK	kg per farm		
Cattle activities, BEEF	kg per farm		
Other animals	kg per farm		

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**Annex 1 – List of interviewees**

Mr. Seppo Aaltonen, Central Union of Agricultural Producers and Forest Owners  
MTK

Mr. Juha Palonen, Ministry of Agriculture and Forestry

Mrs. Leila Peltola, Ministry of Agriculture and Forestry

Mrs. Virva Terho, Ministry of Agriculture and Forestry

**Annex 2 – Notes of interviews**

N.a.