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CAP HEALTH CHECK – IMPACT ASSESSMENT NOTE N° 9

Subject: New challenges

1. BACKGROUND

The Communication on the Health Check identifies a number of new, and ongoing, challenges for the CAP (i.e. risk management, climate change, bio-energy, water management and biodiversity) and considers the Rural Development Policy as one of the possibilities to deal with these challenges.

EU agriculture is highly exposed to climate change. A wide range of short term concerns relates to uncertainties about precipitation patterns, extreme weather events, temperature levels, water availability, and soil conditions. While the most severe impacts from changes in the mean weather variables (such as temperature) are not expected to be felt until 2050 or latter in the century, in the longer term significant impacts are expected from increased frequency and severity of extreme weather events, and projected climatic changes will impact crop yields, livestock management, or location of production (shifts from southern areas to higher latitudes)¹. The magnitude of risks depends on the scenarios considered, but significant negative impacts can be anticipated unless serious mitigation measures reverse present trends.

At low warming levels, some of the projected climate changes could be beneficial in certain European regions, mostly northern areas, but most impacts are likely to be adverse and occur in regions already under pressure due to socio-economic and other environmental factors, such as water scarcity.

EU agriculture, which accounts for 9% of total EU Greenhouse gases (GHG), has performed better than most other EU sectors in curbing emissions². Agriculture has contributed to mitigating climate change with a cumulative reduction of 11% in EU-15

¹ Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, chapter 5 (Food, fibre and forest products).

² There are considerable variations in the national situations regarding the absolute levels of agricultural emissions, their main sources, the share of agriculture in total GHG, and the recent and projected trends.

and 20 % in EU-27 between 1990 and 2005³. In EU-15 a further 14% decrease is projected by 2010. These developments are mainly due to the impact of CAP reforms, as less production incentives resulting from the shift away from market support towards producer support improve crop production methods (e.g. reduced and more efficient use of fertilizers, reduction in the application of manure) and diminishing cattle numbers as well as the implementation of the nitrate Directive.

The Commission's Communication on water scarcity and droughts of June 2007 underlines that sustainable water management is essential for EU agriculture, otherwise pressures on the quantity and quality of water for agriculture will increase considerably. Furthermore, halting biodiversity decline remains a major challenge, especially if climate change accelerates and water demand continues to increase.

The EU renewable energy roadmap has set binding targets for the share of biofuels (10%) and renewable energies (20%) in total fuel and energy consumption by 2020. These targets are closely linked to climate change mitigation objectives and are likely to have a significant impact on EU agriculture. At the same time the primary vocation of European agriculture will continue to be the production of food and feed.

2. PROBLEM DEFINITION

[Are new challenges sufficiently addressed under current legislation?]

Most new challenges - i.e. climate change, renewable energy, water and biodiversity - have been addressed to a large extent by the Strategic Guidelines for Rural Development⁴, which establish at EU level the priorities for the Rural Development Programmes (RDPs) in the period 2007-2013.

The programming process starts with Member States drawing up a National Strategy Plan based on priorities laid down in the Community strategic guidelines for rural development⁵. This is followed by the RDPs in which Member States (MS) have to explain the transposition of the strategy in terms of measures they chose and the relating use of funds per axis and broken down by measure⁶.

As a result a substantial number of measures related to new challenges have been programmed by the MS in the Rural Development Programs 2007-2013 and thus can already be implemented. In total, more than 25 sub-measures directly or indirectly related to climate change, renewable energies and water management have been included in the programmes (See Annex 1 for an indicative list of measures). Furthermore, MS set targets for output/result and impact indicators. During the programming period, Member States have to report annually on spending per axis and per measure, and on outputs and

³ Greenhouse gas emission trends and projections in Europe 2007: tracking progress towards Kyoto targets (Annex agriculture sector), EEA report No 5/2007.

⁴ Council Decision (2006/144/EC), OJ L 55, 25.2.2006

⁵ Member States have to examine in their SWOT (strengths, weaknesses, opportunities and threats) analysis the needs for action, taking the EU Guidelines, and thus the new challenges, into account.

⁶ Impact Assessment of Rural Development programmes in view of post 2006 RD policy, 2004

results of the programme following common indicators (defined in Annex VIII of Commission Regulation (EC) 1974/2006).

[Are MS addressing new challenges through existing RD measures?]

In order to verify how far Member States have addressed the new challenges, a screening of the programs for 2007-13 has been carried out in view of extracting the relevant information. The screening exercise was conducted on 75 RDP, in relevant selected regions.

The results of the screening indicate that Member States have addressed in their SWOT (strengths, weaknesses, opportunities and threats) analyses and strategies those dimensions of the new challenges which are explicitly mentioned in the EU Guidelines on rural development (climate change, renewable energies and water management) relatively well (see Annex 2 for more details).

As regards the up-take of the new challenges in the RDPs, the survey indicates that RD sub-measures related to the "new challenges" have already – obviously to differing degrees – been programmed in many of the RDPs submitted by the Member States. For instance, with respect to "Climate Change – Mitigation" the up-take of the measure "Action to improve efficiency of fertiliser use" is exceptionally high. Or, in relation to "Water Management" the survey results indicate that support is given with many rural development programs for water saving technologies as investment support under axis 1 and/or under agri-environment, axis 2.

It can be concluded that the "tool-box" available under RD is already providing various alternatives to address the new challenges and MS have included related measures already in their RDPs for the period 2007-13.

Are current resources within Pillar II sufficient?

First experiences with the financial up-take of RD resources in 2007 suggest that Member States have budget needs beyond their financial possibilities. In fact, because of the decisions on the Financial Perspectives a number of Member States have been confronted with significant reductions of their rural development budget for 2007-13.

3. OBJECTIVES

The screening exercise of RD programmes indicates that existing measures are already providing various alternatives to address the new challenges and that MS have included related measures already in their RD programmes for the period 2007-13s.

Thus, the analysis of the impact of the proposed options for facing "new challenges" via rural development measures focused on the impact of such proposals on improving EU responsiveness to new challenges, outlined in the Strategic Guidelines for Rural Development, via greater uptake of second pillar measures.

4. POLICY OPTIONS

4.1. Increasing the uptake of measures

4.1.1. Option 0: Status quo

No changes to the present system

4.1.2. Option 1: Transfer of funds to Pillar II without any further requirements

Modulation of funds without specific requirements

4.1.3. Option 2: Ear-marking

- a) Targeting of funds to pre-determined but existing sub-measures⁷ with a reporting obligation for the new funding.

MS will have to implement a system that allows a separate reporting and management identifying funds from the original funding and new funds from modulation.

- b) Targeting of funds to existing measures related to "new challenges" with a reporting obligation concerning:

- the new funding (financial planning and reporting) and;
- indicators of measures in areas of "new challenges", both financed by old and new funds.

The Member States will be asked to report on results/impact of the totality of new challenges related activities under the RDP, combined for old and new funding.

4.1.4. Option 3: Higher co-financing rates

Increase the rate of EU funds in relation to the eligible public expenditure (co-financing rate) for individual sub-measures or groups of measures that positively contribute to any of the identified new challenges.

4.1.5. Option 4: Higher aid-intensities

Offer a higher percentage of the eligible total expenditure to be financed by public budget (aid intensities).

4.1.6. Option 5: Obligation to use modulation funds for new challenges

Member States are requested to direct the total amount of additional resources from compulsory modulation to the new challenge related actions by enlarging their number and/or scope whenever necessary. Aid intensity

⁷ The measures have a wide scope. Therefore, it may be necessary to have targeted sub-measures to address the new challenge issues.

rates for new challenge related actions will be increased by 10 percentage points.

5. ANALYSIS OF IMPACTS

5.1. Impact on the programming process, uptake of measures

5.1.1. Option 0: Status-quo

No changes are required in the programming process. A qualitative assessment of the programming of new challenge related measures in the RD programmes 2007-13 has indicated that the uptake of measures related to New Challenges is often weaker than the extent to which they have been discussed by the Member States in their national strategy on RD and in the SWOT analysis in their RD programmes.

5.1.2. Option 1: Transfer of funds to Pillar II without any further requirements

The Member States may have to adjust their National Strategy Plan on RD. In any case, they will have to adjust the financial plans of the Rural Development Programs to amend the amounts of expenditure per axis and measure. The Member States will also have to amend the projected output that should result from the programmes. Under this option the administrative burden at MS level will be higher due to re-programming. The uptake of measures/actions will possibly increase, although is difficult to quantify.

5.1.3. Option 2: Ear-marking

- a) Targeting of funds to pre-determined but existing sub-measures⁸ with a specific reporting obligation only for the new funding.

For national strategy and projected output, as in option 1. MS would be obliged to report separately on "additional" modulation funds. This would necessitate a revision of the financial planning and a separate reporting by the MS administrations.

- b) Targeting of funds to existing measures related to "new challenges" with a reporting obligation concerning:
- the new funding (financial planning and reporting) and;
 - indicators of measures in areas of "new challenges", both financed by old and new funds

For national strategy and projected output, as in option 1.

An adaptation of existing indicators could be necessary under this option. Apart from the additional reporting concerning the exact allocation of the

⁸ The measures have a wide scope. Therefore, it may be necessary to have targeted sub-measures to address the new challenge issues.

additional spending, this sub-option would oblige the MS to have a separate reporting on the results of the support measures in the area of the new challenges.

Under both sub-options the uptake of measures/actions will surely increase, although it is difficult to quantify. The administrative burden at MS level will be higher due both to reprogramming and the introduction of new reporting procedures.

5.1.4. Option 3: Higher co-financing rates

In the programming period 2007-2013, for the sake of simplification, co-financing rates are defined for each RDP at the level of each axis. Increasing co-financing rates for new challenges related actions would address the level of (sub)measures and would destroy one of the new elements of simplification in the new period (i.e. unified co-financing rates per axis). The system of financial programming would have to be changed, programming to be re-done, and the financial system would fall back into the approach of the old period, with the consequent increase in the administrative burden for MS.

Higher co-financing rates for individual sub-measures or groups of measures that positively contribute to any of the dimensions of the new or on-going challenges should not be envisaged because it would involve a turn back to a more complicated financing mechanism and it could also entail the re-opening of the discussion in the Council on this issue which should be absolutely avoided. The uptake of measures/actions will increase, but it is difficult to quantify.

5.1.5. Option 4: Higher aid-intensities

If additional budgetary resources are injected into the system, higher aid intensity rates may constitute a simple but efficient tool to provide additional incentives for those sub-measures which are expected to contribute positively to the new challenges. This will imply reprogramming of RD Plans for MS with its consequent burden.

Due to the limited budget available for RD programs Member States in many cases kept aid intensity rates distinctly below the maximum rates possible. Before increasing the aid intensity, it should be carefully analysed whether such incentives are really needed to make the new challenge related sub-measures more attractive. There is a risk that such increase leads to dead-weight losses. The uptake of measures/actions will increase possibly more than under the other options depending on the aid-intensity rates implemented by MS. Again, the uptake is difficult to quantify.

5.1.6. Option 5: Obligation to use modulation funds for new challenges

MS will need to modify their programmes in order to include the additional amounts coming from compulsory modulation. In the context of this modification MS should clearly identify in the revised program the choice

of specific actions targeting the new challenges⁹ and the additional amounts from modulation to be allocated to each action. Member States will be invited, on the basis of an assessment of their respective situation and needs related to the new challenges, to make use of actions included in a non-exhaustive but indicative list of action types to be inserted as an annex in the Council regulation.

Upon submission of the amended programs, the Commission services will check that the link between needs and choice of action is well established; they will check also that the additional money is completely programmed for the sub-group of measures targeting the new challenges. In this context, the particular needs of MS have to be well taken into account, for example the effort needed for the GHG emissions reductions.

In the Annual Reports of each program, a specific chapter should be dedicated to reporting on the progress made in implementing the actions targeting the new challenges (climate change, renewable energies, water management, biodiversity). This would include the obligation to report on expenditure and any other relevant information. Corrective actions, for example program adaptations, would have to be taken if problems arise with the absorption of funds and the achievement of objectives. At the end of the programming period, each program should come to the full use of the additional money for the specific objectives of the new challenges. Any amount dedicated to the new challenges which will not be spent for this purpose at the end of the period will be lost for the MS.

This option is the most effective since it guarantees a higher uptake of measures/actions, although it implies higher administrative burden and complexity both at MS and EU level.

5.2. Legislative and administrative consequences

A first step to initiate a targeted re-programming of RDPs 2007-13 would be to update and revise the Community Strategic Guidelines on RD by highlighting the increased importance of the new challenges and by focusing the EU priorities more on the new challenges related to all three main objectives of the EU's RD policy.

A Council decision will be needed on the up-date of the Community Guidelines on RD and a modification of the Council Regulation to oblige Member States to take up the reinforced EU priorities related to the new challenges in their strategies and to define specific actions in their revised RDPs 2007-13. In the case of Option 5 a new article of the Council Regulation should indicate the obligation of Member States to channel all funds available from increased modulation to new challenge related actions in the context of re-programming. A non-exhaustive indicative list with new challenge related action-types should also be inserted as an Annex.

In the case of Option 5 a new article should be inserted in the Commission Regulation specifying the additional reporting obligations related to the new challenges.

⁹ See the complete list in Annex 3.

5.3. Social/environmental impacts of alternative options for new challenges

	Social Impact	Environmental Impact
Option 0 - baseline	Neutral	Difficult to assess, depends on MS implementation
Option 1 – Simply transfer of fund to Pillar II	Response to public concerns	Possible improvement following higher uptake primarily of Axis 2, and specific Axis 1 & 3 measures ¹⁰
Option 2 - Earmarking	Response to public concerns	Possible improvement following higher uptake primarily of Axis 2, and specific Axis 1 & 3 measures
Option 3 - Higher co-financing rates	Response to public concerns	Possible improvement following higher uptake primarily of Axis 2, and specific Axis 1 & 3 measures
Option 4 - Higher aid-intensities	Response to public concerns	Possible Improvement following higher uptake primarily of Axis 2, and specific Axis 1 & 3 measures
Option 5 – Obligation to implement new challenges measures	Response to public concerns	Improvement following higher uptake primarily of Axis 2, and specific Axis 1 & 3 measures ensured by obligation

6. CONCLUSIONS

Continuing present policies would significantly limit the responsiveness of the CAP to the new challenges and its contribution to the key agendas of climate change, renewable energy, water management and biodiversity. Extra RD funding would, in itself, lead to a greater responsiveness and uptake of measures, but the reprogramming effort of RD measures required would not be compensated for by a better targeting or up-take of measures related to the new challenges. Earmarking funds exclusively towards the new challenges would imply an additional administrative effort due to the associated need for one major program revision. However, targeting the use of additional modulation funds for new challenges would be the most effective in guaranteeing a higher uptake of such measures/actions which again would provide the chance to substantially re-enforce the Member States and the EU's priorities in these policy areas..

¹⁰ See note 5.

Annex 1 New challenges related measures in RD- current implementation

Table - Overview of sub-measures/actions available in the tool-box of the EU's Rural Development Policy to address the new challenges¹¹

<i>Priority: Climate change</i>		
Types of operations	Articles and measures	Potential effects
Improve efficiency of nitrogen fertiliser use (for ex. reduced use, equipment, precision agriculture), improvement of manure storage	Article 26: Modernisation of agricultural holdings Article 39: Agri-environment payments	Reduction of methane (CH ₄) and nitrous oxide (N ₂ O) emissions
Improvement of energy efficiency	Article 26: Modernisation of agricultural holdings	Reduction of carbon dioxide (CO ₂) emissions by saving energy.
Soil management practices (for ex. tillage methods, catch crops, diversified crop rotations)	Article 39: Agri-environment payments	Reduction of nitrous oxide (N ₂ O); carbon sequestration.
Land Use change (for ex. conversion of arable land to pastures, permanent set-aside, reduced use/ restoration of organic soils)	Article 39: Agri-environment payments	Reduction nitrous oxide (N ₂ O); carbon sequestration.
Extensification of livestock (for ex. reduction stocking density, increase grazing)	Article 39: Agri-environment payments	Reduction of methane (CH ₄).
Afforestation	Articles 43 and 45: First afforestation of agricultural and non-agricultural land	Reduction of nitrous oxide (N ₂ O); carbon sequestration.
Forest fire prevention	Article 48: Restoring forestry potential and introducing prevention actions	Carbon sequestration in forests and avoid carbon dioxide (CO ₂) emissions.
<i>Priority: Renewable energies</i>		
Biogas production – anaerobic digestion plants using animal waste (on farm and local production)	Article 26: Modernisation of agricultural holdings Article 53: Diversification into non-agricultural activities	Substitution of fossil fuel; reduction of methane (CH ₄)
Perennial energy crops (short rotation coppice and herbaceous grasses)	Article 26: Modernisation of agricultural holdings	Substitution of fossil fuels; carbon sequestration; reduction of nitrous oxide (N ₂ O).
Processing of agricultural/forest biomass for renewable energy	Article 28: Adding value to agricultural and forestry products	Substitution of fossil fuels.
Installations/infrastructure for renewable energy using biomass	Article 53: Diversification into non-agricultural activities Article 54: Support for business creation and development Article 56: Basic services for the economy and rural population	Substitution of fossil fuels.

¹¹ The list of actions is not complete. For instance, there are many other sub-measures/actions spread over all axes which contribute positively to biodiversity. Hence, the list shown below should only indicate the wide variety of actions which are possible under the chapeau of the RD measures to address the new challenges.

Priority: Water Management		
Types of operations	Articles and measures	Potential effects
Water saving technologies, water storage Water saving production techniques	Article 26: Modernisation of agricultural holdings Article 30: Infrastructure	Improve the capacity to use water more efficiently.
Wetland restoration Conversion of agricultural land into forest/agro-forestry systems	Article 39: Agri-environment payments Article 41: Non-productive investments Article 43 and 45: First afforestation of agricultural and non-agricultural land	Conservation of high-value water bodies; protection of quality water.
Development of semi-natural water bodies	Article 57: Conservation and upgrading of the rural heritage	Conservation of high-value water bodies; protection of quality water.
Priority: Biodiversity		
Types of operations	Articles and measures	Potential effects
No application of fertilizer and pesticides on high nature value agricultural land Integrated and organic production	Article 39: Agri-environment payments	Conserved species-rich vegetation types, protection and maintenance of grasslands.
Perennial field and riparian boundary strips Construction/management of biotopes/habitats within and outside Natura 2000 sites Land Use Change (extensive grassland management, conversion of cropland to pasture, long-term set-aside) Management of high nature value perennials	Articles 38 and 46: Natura 2000 payments Article 39: Agri-environment payments Article 41: Non-productive investments Article 47: Forest-environment payments Article 57: Conservation and upgrading of the rural heritage	Protected birds and other wildlife and improved biotope network; reduced entry of harmful substances in bordering habitats.
Conservation of genetic diversity	Article 39: agri-environment payments	Conserved genetic diversity.

Annex 2: Results of Screening of RDPs 2007-13 related to new challenges (NC) based on 48 programs (State of play: Nov. 28th 2007)

Explanatory comment: Results are based on a survey of 75 national/regional RDPs which were screened by desk officers in the Geographical Units in DG AGRI in charge of the various 2nd pillar programs. With the survey it was asked to which extent the four dimensions of the "new challenges" – climate change (adaptation and mitigation), renewable energies and water management were addressed 1) in the SWOT analysis, 2) in the strategy of each programme and 3) in respect of the (sub-)measures programmed. Qualitative answers were possible by choosing between 1 ("very good/high") 2 ("medium") to 3 ("very bad/not at all").

The four dimensions of the "new challenges":

...in the SWOT analysis and the Strategy

- All of the new challenges have been addressed relatively well in the part of the *SWOT analysis dealing with strengths and weaknesses*). The issues "water management", "climate change adaptation and mitigation" and "renewable energies" were all relatively well addressed (with a score of 1.7 or 1.9 out of 3 – a score of 1 is indicating a high prevalence of the issue in the SWOT analysis, a score of 3 means the issue is not mentioned at all).
- Some of the new challenges are slightly less present in the *strategy* of the national or regional programs, e.g. climate change where the score average is 2 both for mitigation and adaptation.

... in the rural development measures

- The up-take of (sub-)measures which are related to the new challenges is often weaker than the extent to which the issues have been discussed by the Member States in the strategy and the SWOT analysis of their programs. Only for a few measures rather high scores (<2) have been obtained.
- With respect to Climate Change-Mitigation the up-take of the measure "Action to improve efficiency of fertiliser use" is with a score of 1.5 exceptionally high. All other rural development (sub-)measures from which positive contributions to the climate change mitigation are expected obtained average scores between 2 and 2.5.
- Under the topic "Climate Change - Adaptation" the sub-measure "Conservation of genetic resources" shows a comparatively high level of up-take (score: 1.7) while the scores for other sub-measures (planting of hedgerows, transformation to more resistant forest types) indicate rather moderate levels of up-take.
- With respect to "Renewable Energies" the sub-measure "Investment support for local energy supply from agriculture/forestry/biomass" has been programmed most frequently (score 1.9). In contrast, the "plantation of perennial crops" obtains significantly lower support (score 2.6).
- With respect to "Water Management" support is indicated in many rural development programs for water saving technologies (investment support under axis 1) and for water saving techniques (under agri-environment, axis 2).

Table 1 - Results of Screening of RDPs 2007-13 related to new challenges (NC)

Climate Change: MITIGATION

SWOT	1.7
Strategy	2.0
Sub-measures:	
Investments in manure storage facilities and equipment for better application of fertiliser. mineral and manure (spreader. precision farming)	2.0
Investments in new and more energy efficient building/equipment	2.0
Actions to improve efficiency of fertiliser use (e.g. reduction of fertilizer use. changing practices. N balance)	1.5
Soil conservation techniques (tillage). Restoration of organic soils	2.1
Conversion of arable land to permanent pastures	2.4
Extensification of livestock density	2.1
Maintenance of permanent set-aside	2.4
Targeted training and advisory services on climate change and emission issues	2.2
Forest management measures enhancing carbon sink pool. such as continuous forest cover. special regeneration systems	2.6

Climate Change: Adaptation

SWOT	1.8
Strategy	2.0
Sub-measures:	
Conservation of genetic resources (in agric. or forestry)	1.7
Planting of hedgerows	2.1
Measures promoting the transformation to more resistant forest types against climate impacts. such as changing tree species	2.1
Any other measures	2.3

Renewable Energies:

SWOT	1.7
Strategy	1.9
Sub-measures:	
Investment support for on-farm production of biogas	2.2
Investment support for biofuels processing	2.4
Plantation of perennial crops (herbaceous grasses)	2.6
Investment support for local energy supply from agriculture/forest biomass	1.9
Any other measures	2.2

Water Management

SWOT	1.7
Strategy	1.7
Sub-measures:	
Combat water scarcity (e.g. water saving technologies. water storage etc.)	2
Wetland restoration	2.1
Conversion of land into forest. agro-forestry systems	2.1
Development of semi-natural water bodies	2.6
Water saving production techniques (e.g. water-saving crop rotation. no-tillage. permanent green cover)	2.1
Training and Extension services on water management	2.2