

CZECH REPUBLIC

Program rozvoje venkova ČR (*Czech Rural Development Programme 2007-2013*)

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Other useful links:

Rural Development Programme (RDP):

<http://eagri.cz/public/eagri/venkov/program-rozvoje-venkova/programove-dokumenty/program-rozvoje-venkova-cr-1.html>

National Strategy Plan (NSP):

<http://eagri.cz/public/eagri/dotace/program-rozvoje-venkova-na-obdobi-2007/programove-dokumenty/narodni-strategicky-plan-rozvoje-venkova.html>

National Rural Network (NRN):

<http://eagri.cz/public/eagri/venkov/>



Climate Change and Renewable Energy issues in 2007-2013 RDP

Climate change (CC) is a fundamentally important issue in the context of agriculture and policy making. EU agriculture must play an important role in mitigating this phenomenon by curbing greenhouse gas (GHG) emissions; at the same time it needs to adapt to the expected climatic adversities which will have serious consequences on production processes. Rural development offers a range of possibilities to support farming practices and investments that can contribute to climate change *mitigation* efforts (including the increase of the use of *Renewable Energy* (RE) resources) and additionally effect *adaptation* benefits. CC challenges have been well recognized in the baseline analysis of the 2007-2013 EU Rural Development Programmes (RDP) and addressed in their strategies. Following the Health Check (HC) of the Common Agricultural Policy (CAP), the 'new challenges' of the RD policy include 'climate change' and 'renewable energy' for which an additional budget of approximately €1 billion⁽¹⁾ have been made available for Member States (MS) to spend on these issues⁽²⁾. As a consequence, the operations related to these newly introduced Community priorities have been further strengthened in the RDPs.

⁽¹⁾ 19.8% of the total additional funds released.

⁽²⁾ The budget allocated to the 'new challenges' includes the funds released by the HC of the CAP (including voluntary modulation and transfers according to Art. 136 of Regulation (EC) No. 73/2009) and the European Economic Recovery Package (EERP) .

Introduction - overview of Member State RDP(s)

All the three dimensions of climate change (mitigation, adaptation and the potential for renewable energies) are addressed by the baseline analysis provided in the Czech RDP. These three aspects have been considered and correspondingly addressed in the RDP strategy and within the implemented measures.

The Czech RDP identifies a number of challenges with regards to CC adaptation and mitigation and the development of renewable energy sources. These include out-dated technological equipment, low level of innovation mainly due to insufficient use of research and a limited level of education and training in the Common Agricultural Policy and environmental protection in general in the EU. To adjust for such limitations specific actions mainly under axes 1, 2 and 3 need to be implemented in order to ensure environmental and climate sustainability.

According to the baseline analysis, agriculture alone is the main source of ammonia emissions, and in respect of the objectives of the Kyoto protocol and the new challenges raised by the HC, the current RDP keeps its focus on reducing GHG emission and increasing the use of renewable energy sources (RES) with especially biogases and biomasses deriving from agricultural waste, residual productions and perennial energy crops. In the strive of reducing GHG emissions, rural development policy in the Czech Republic has already contributed to an increase of 30-40% in organic farming; however, in absolute terms this market is still very small.

The main objective of the RDP in respect of mitigating CC effects is to reduce GHG emissions and to support investments in developing renewable energy sources and ensuring energy self-sufficiency in rural areas by achieving 8% of energy production from renewable sources.

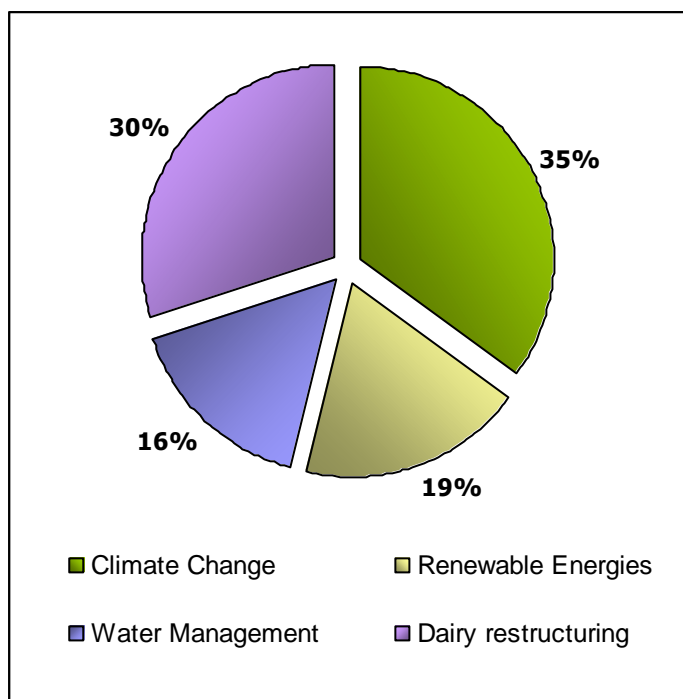
The high level of planning and organisation in agriculture and forestry and an increasing interest in the use of alternative energy sources are undoubtedly assets for the challenges to be addressed, especially considered the possible adverse conditions that climate change is likely to produce towards the production basis, biodiversity and water resources. However, the productive costs linked to environmental regulation can represent a major threat for the economic actors involved.

According to the RDP, the effort to reduce adverse impacts of agriculture and avert CC will be mainly implemented through axis 1 actions for the *modernisation of agricultural holdings, adding value to agricultural and forestry products, land consolidation* (choices that have been confirmed by the re-distribution of the resources within axis 1 measures following the HC) and *vocational training and information actions*. In this regard, key actions within axis 1 are: i) the reduction of methane (CH₄) and nitrous oxide (N₂O) emissions through improved manure storage; ii) the reduction of carbon dioxide (CO₂) emissions by saving energy; iii) the intensification of biomass use as fuel and iv) the improvement of water storage capacity.

Axis 2 contributes to the objective of mitigating possible impacts of climate change by increasing the carbon sinks for GHG emissions (planting of new forests). Almost 15% of the axis budget is spent on Priority "Water and soil protection" and a further 5% is invested in CC mitigation actions aimed at the promotion of the use of renewable energy sources through the existing forestry potential and through the possibilities of its expansion and preservation of forest's positive functions. The HC revision considered that the financial resources already allocated in the approved RDP were sufficient.

Among axis 3 envisaged key actions, a relevant role is played by the measures "*Diversification into non-agricultural activities*" and "*Support for business creation and development*" to emphasise the importance of energy self-sufficiency in rural areas (this priority was also boosted following the HC).

Allocation of the additional resources per type of priority



The overall budget of the Czech RDP in terms of total public expenditure amounts to €3,670,068,292 of which €2,857,506,354 of EAFRD contribution. This includes an additional allocation of €42,000,000 (EAFRD contribution) as a result of the new challenges raised by the HC and the adoption of the European Economic Recovery Plan (EERP). Following these changes, additional financial support to the RDP objectives related to climate change (+€14.73 million, 35%, of the new EAFRD funds allocated to the programme), renewable energies (+€7.77 million, 19% of the new EAFRD funds allocated to the programme), water management (+€6.86 million, 16% of the new EAFRD funds allocated to the

programme) and dairy restructuring (+€12.64 million, 30% of the new EAFRD funds allocated to the programme) have been enhanced for the period 2010-2013. These new financial supports should be considered in addition to the initial RDP which was already addressing CC and RE.

In order to support the climate change related actions the enhanced RDP particularly targets the following investments: improvement of manure storage, improvement of energy efficiency through increasing the use of construction materials that decrease thermal loss, enhancing preventive mechanisms against adverse effects of climate related extreme events and using modern energy saving technologies for storage of agricultural processed products.

With regards to RE operations, the enhanced strategy includes support for processing of agricultural/forest biomass for renewable energy and construction of installations for the production and use of renewable energy and fuel sources for heating and/or electric energy production.

The indicative budget related to operations referred to in Article 16a of Regulation (EC) 1698/2005 between 1 January 2009 and 31 December 2013 (Article 16a(3b) up to the amounts:

No.	Axis/Measure	EAFRD contribution for 2009-2013
121	Modernisation of agricultural holdings	18 585 000
	<i>Climate change</i>	<i>11 545 000</i>
	<i>Measures accompanying restructuring of the dairy sector</i>	<i>7 040 000</i>
123	Adding value to agricultural and forestry products	10 185 000
	<i>Climate change</i>	<i>3 185 000</i>

	<i>Water management</i>	<i>1 400 000</i>
	<i>Measures accompanying restructuring of the dairy sector</i>	<i>5 600 000</i>
125	Land consolidation	5 460 000
	<i>Water management</i>	<i>5 460 000</i>
	Total Axis 1 - Improving the competitiveness of the agricultural and forestry sector	34 230 000
311	Diversification into non-agricultural activities	3 885 000
	<i>Renewable energies</i>	<i>3 885 000</i>
312	Support for the creation and development of micro-enterprises	3 885 000
	<i>Renewable energies</i>	<i>3 885 000</i>
	Total Axis 3 - Quality of life in rural areas and diversification of the rural economy	7 770 000
	Total programme	42 000 000
	<i>Climate change</i>	<i>14 730 000</i>
	<i>Measures accompanying restructuring of the dairy sector</i>	<i>12 640 000</i>
	<i>Water management</i>	<i>6 860 000</i>
	<i>Renewable energies</i>	<i>7 770 000</i>
	- Total under Axis 1, 2, 3 and 4 related to priorities listed in Article 16a(1), points (a) to (f) of Regulation (EC) No 1698/2005	42 000 000

Further details of the overall RDP budget allocation for the Czech Republic are available at:

http://enrd.ec.europa.eu/rural-development-policy/country-information/rural-development-policy-fiches/en/rural-development-policy-fiches_home_en.cfm

Mitigation

Activities aimed at reducing agricultural greenhouse gas emissions

The Czech RDP provides comprehensive support for a range of activities which could contribute to reducing agricultural emissions. Following the HC revision and the adoption of the EERP, new strengthened operations have been implemented for environmental protection and sustainable agriculture which enhance the uptake of the priority of CC mitigation. These are particularly related to investments in new environmental technologies in agricultural holdings and the promotion of sustainable land management practices.

The main measure through which the RDP seeks to support efforts to reduce agricultural GHG is **measure 121 – modernisation of agricultural holdings** although other measures also contribute. Under this measure explicit reference is made to supporting investments in new processes and technologies which aim at addressing environmental and climate change challenges. In particular, measure 121 aims at reducing GHG emissions from livestock production through investments in manure storage. Together with **measure 123 – added value to agricultural and forestry products** both measures aim at improving energy efficiency by using construction materials that reduce heat loss or use of energy saving technologies to store processed agricultural products. As a consequence of the HC, the most significant financial boost was given to these two measures to support CC mitigation (35% of total additional EAFRD).

Following the HC, in an effort to mitigate against CC effects the additional support is dedicated to actions related to landscape water management under **measure 125 – land consolidation**. In particular, the support of operations that improve the retention of water in landscape and eliminate the risk of floods and erosion will be strengthened.

Among other measures of axis 1 that could contribute to the climate change mitigation belong:

Measure 111 – vocational training and information actions which in order to reinforce the RDP strategy, supports training and knowledge diffusion in areas such as landscape conservation and maintenance and environmental protection, resolution of problems related to soil erosion, water pollution, and reduction of the energy burden, and

Measure 114 – use of advisory services which is designed to improve the knowledge of entrepreneurs in the agricultural and forestry sectors. It encourages farmers in this sector to seek advice on how to increase the carbon sink by increasing forestry areas and manage them better. This measure also addresses the issues of lack of expertise of Czech farmers with regards to the CAP.

According to the RDP baseline analysis, Czech soils suffer from becoming permanently destroyed due to intensive use and unsuitable farming measures. Under axis 2, and especially important for Czech agriculture, **measure 214 – agri-environment payments** contributes to decreasing the use of fertilisers on grasslands. A considerable number of operations are referenced under this measure which could help to reduce emissions, including: payments for limited or not using fertilisers and/or farm manure; and, payments for the conversion to organic farming and/or integrated production.

In accordance with the RDP baseline analyses and strategy, **measure 221 – first afforestation of agricultural land** encourages farmers to diversify their production by afforesting part of their agricultural land. From an environmental point of view, it increases the capacity to absorb carbon dioxide and also stabilises hydrological and climatic conditions while protecting soils and waters.

Adaptation

Prevention of, and coping with, potential impacts of climate change on agriculture

In terms of CC adaptation measures, the Czech RDP addresses a number of actions, including: assistance with the restoration of agricultural potential after natural disasters, preventive actions such as water overflow areas and investment in flood protection, the management of land, the preservation of biodiversity and the environment. Operations related to responding to adverse weather events and water management received additional EAFRD resources following the HC, which strengthens the RDP priority of addressing issues related to CC in terms of land and water management.

In responding to the effects of CC and consequent adverse weather conditions, the RDP axis 1 **measure 125 – land consolidation** has been reinforced following the HC to improve water storage capacities, including water overflow areas in the event of floods, which have become more common in the Czech Republic during the past decade. According to the RDP baseline analysis, further flood control actions can be supported under axes 2 and 3. Furthermore, measure 226 – *restoring forestry potential and introducing prevention actions* is implemented in the RDP to support protective actions designed to prevent or mitigate damage caused by natural disasters in forests. Actions include: preventive flood control operations; erosion control measures; elimination of damage caused by flooding to small watercourses and in their catchments basins, on forest roads and associated facilities, and stabilisation of ravines on land designed for forest functions.

Under axis 1, **measure 123** - *adding value to agricultural and forestry products* addresses issues regarding water efficiency by targeting actions to construct and or reconstruct waste water treatment installations in order to improve water efficiency in agriculture and food processing sectors.

Measure 121 – *modernisation of agricultural holdings* supports under axis 1 actions aiming at reducing the negative effects from extreme weather events on agricultural production (for example construction or reconstruction of hail nets).

Under **measure 111** – *vocational training and information actions* support is provided for training and knowledge diffusion in areas such as landscape conservation and maintenance and environmental protection and increase of biodiversity and landscape diversity, especially on Natura 2000 sites, in Nitrate Vulnerable Zones and other sensitive areas.

To further strengthen the environment and biodiversity, **measure 214** - *agri-environment payments* contributes to adapting Czech agriculture to CC effects. Support is given to landscape management in an attempt to respond to an unsatisfactory state of the quality of water and the consequent risk for soil erosion by converting arable land into a variety of grasslands.

Likewise, under axis 2, **measure 213** – Natura 2000 payments and payments linked to Directive 2000/60/EC aims at promoting a sustainable use of agricultural land through encouraging environmentally friendly farming systems, including the exclusion of fertiliser and/or farm manure use, in order to prevent degradation of agricultural land. This measure will reinforce the RDP strategy of sustainable agricultural methods and encourage biodiversity and a more diverse landscape.

Measure 321 – *basic services for the economy and rural population* supports investments to improve water management, including network distribution and sewerage systems and waste water treatment plants.

Additional measures that potentially could contribute to improved adaptation actions is measure 112 – *setting up of young farmers under* which support for investments in agricultural buildings for crop production, e.g. for the construction or reconstruction of supporting structures for perennial crops can be provided and measure 225 – *forest-environment payments* which could also support CC adaptation in agriculture through its principles of sustainable management and ambition to increase the number of species with high tolerance to detrimental factors and their positive effects on soil.

Main RDP measures which contribute to address CC mitigation/adaptation issues

Axis/Measure	Description	Type of operation	Potential effects
Axis 1			
Measure 111	Vocational training and information actions	Training focusing on the acquisition, improvement and innovation of knowledge and skills and dissemination of information	Improve knowledge base and information dissemination with regards to better soil and water management, increased energy efficiency/effectiveness and decrease biodiversity loss.

Axis/Measure	Description	Type of operation	Potential effects
Measure 112	Setting up of young farmers	Investments in agricultural buildings for the construction of supporting structures for perennial crops	Respond to changing environmental circumstances by introducing alternative crops
Measure 121	Modernisation of agricultural holdings	Investments in new environmental technologies particularly in relation to: climate; manure storage; and energy efficiency	Reduce methane, nitrous oxide and carbon dioxide emissions. Improve energy efficiency. Increase preventive mechanisms against adverse effects of climate-related extreme events
Measure 123	Added value to agricultural and food products	Improvement of energy efficiency (e.g. use of construction materials which reduce heat loss or use of energy saving technologies to store processed agricultural products). Installations for waste water treatment in processing and marketing of agricultural and food products	Reduce carbon dioxide emissions by saving energy. Improve the capacity to use water more efficiently
Measure 125	Land consolidation	Water storage (including water overflow areas)	Improvement of the capacity to use water more efficiently and to improve the capacity to store water
Axis 2			
Measure 213	Natura 2000 payments	Sustainable use of agricultural land including the exclusion of fertiliser use	Conserved rural landscape, environmentally friendly farming systems and protection of natural resources
Measure 214	Agro-environment payments – sub-measures environmentally friendly farming methods, grassland maintenance, landscape management	Improve agricultural land, especially grassland for organic livestock farming and integrated production of fruits, vine and vegetables. Conversion of arable land into grassland.	Reduced chemicals in agricultural soils and high quality raw materials ensuring the highest requirements for food safety. Less surface water runoffs on arable land and reduced risk of soil erosion.

Axis/Measure	Description	Type of operation	Potential effects
Measure 221	First afforestation of agricultural land	Converting agricultural land into forests	Stabilisation of hydrological and climatic conditions in the countryside, including protection of soil and water. Increased capacity to absorb atmospheric carbon dioxide
Measure 224	Natura 2000 payments – sub-measure conservation of a forest management group from previous production cycle	Preservation of existing forest management groups with rich biodiversity when a new forest management plan is elaborated to prevent the conversion to a forest management group with a lower ecological value	Conservation of natural habitats. Increased environmental value of forests. Sustainable use of forest land
Axis 3			
Measure 321	Basic services for the economy and rural population	Basic water management infrastructure development including water network distribution and sewerage systems and waste water treatment plants	More water efficient systems and cleaner water as a consequence of more effective plants

Renewable energies

Electricity, heating and transport fuels produced from biomass (such as biofuels, biogas) and other renewable sources (solar, wind, geothermal).

The Czech RDP supports the development and production of renewable energy sources under both axes 1 and 3 and supports activities such as: production and processing of agricultural and/or forest biomass and construction of installations for production of renewable energy using biomass and other renewable energy sources. The production of biomass as an energy source appears to be the central element of the RDP strategy in incrementing the share of agricultural-derived renewable energy production.

In responding to one of the RDP strategic objectives of achieving 8% of energy from renewable sources, under axis 3, both **measure 311** - *diversification into non-agricultural activities* and **measure 312** - *support for business creation and development* support the substitution of fossil fuels by favouring the processing of agricultural/forest biomass for renewable energy and the installations for renewable energy using biomass and other renewable energy sources. As the Czech energy market is rather rigid, the two measures particularly support investments favouring decentralised facilities for processing and use of renewable energy source. Following the HC both measures were reinforced.

Measure 112 – *setting up of young farmers* supports investments in the construction and technologies for processing and use of intentionally grown biomass as well as residual and

waste biomass for energy and material purposes, including necessary handling areas made by young farmers.

Under **measure 123** – *adding value to agricultural and forestry products* beneficiaries will be supported to acquire and upgrade their technologies that allow the processing and use of residual biomass for energy generation.

Main implemented RDP measures related to the development of RE sources

Axis/Measure	Description	Type of operation	Potential effects
Axis 1			
Measure 112	Setting up of young farmers	Investments in the construction of and technologies for the processing and use of intentionally grown biomass as well as residual and waste biomass for energy and material purposes, including necessary handling areas.	Improved structures for producing renewable energy sources (biomass)
Measure 123	Added value to agricultural and food products – sub-measure technical utilities of business establishments.	Acquisition and upgrading of technologies	Processing and use of residual biomass for energy generation
Axis 3			
Measure 311	Diversification into non-agricultural activities	Processing of agricultural/forest biomass for renewable energy. Installations for renewable energy using biomass and other renewable energy sources.	Substitution of fossil fuels.
Measure 312	Support for business creation and development	Processing of agricultural/forest biomass for renewable energy. Installations for renewable energy using biomass and other renewable energy sources.	Substitution of fossil fuels.