

SWEDEN

Landsbygdsprogram för Sverige 2007-2013

(Rural Development Programme for
Sweden 2007-2013)

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Other useful links:

Rural Development Programme (RDP):
<http://www.sweden.gov.se/sb/d/10158/a/82727>

National Strategy Plan (NSP):
<http://www.sweden.gov.se/sb/d/6263/a/65420>

National Rural Network (NRN):
<http://www.landsbygdsnatverket.se/>



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Climate Change and Renewable Energy issues in 2007-2013 RDP

Climate change (CC) is fundamental to the context for 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 EU 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

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

The RDP strategy emphasises that energy policy needs to be transformed in Sweden in order to facilitate sustainable growth. As such, to reduce the extent of green house gas emissions, the RDP promotes the development of energy crops and renewable energy. This will be achieved through support and training to farms and microenterprises to produce new renewable energy innovations, goods and services. In addition, agricultural technologies will be promoted which are energy efficient and encourage the efficient use of natural resources.

Under the climate change targets set by the Riksdag (Parliament), Sweden aims to go beyond the measures set by the Kyoto Protocol by reducing green house gases to below 4% of 1990 levels. Improved nitrogen efficiency is key to this and Axis 1 and Axis 2 fund activities for investments to enhance the environmental performance of holdings (such as infrastructure and equipment) and to encourage environmentally farming (such as organic farming and efficient use of fertilisers).

A number of other aspects of the strategy do not directly mention climate change, but relate to relevant activities. For example, the Swedish RDP strategy and baseline analysis, as well as the measures in Axis 2, emphasise the importance of preserving and enhancing Sweden's biodiversity. In line with national environmental quality objectives, it is noted that agricultural production must embody certain practices that ensures that biodiversity as well as sustainable food production and natural resources are protected for future generations. Currently, there are over 1000 threatened, rare or vulnerable animal and plant species and many of which depend upon the cultivated landscape. The destruction of habitats has resulted in increased pressures on various species including birds, which requires necessary support in order to reverse the trend. In addition, safeguarding native species and sustainable reindeer herding is a priority.

Over past centuries, the forest landscape has undergone change as result of human activity. As such, many forests contain only one or two species (fir or pine) even in places where deciduous, mixed forest used to be more prominent. Given that many species depend upon 'hardwood forests', Axis 2 supports deciduous reforestation to address this imbalance. Moreover, forests (and other biodiversity) are protected under designated areas such as Natura 2000 sites which are again supported by the RDP.

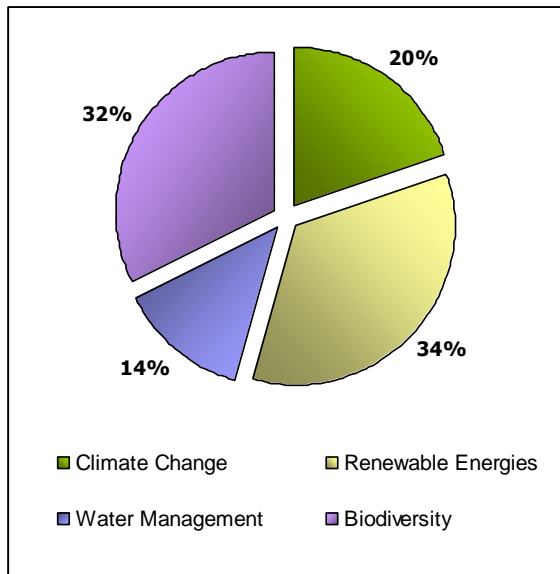
In certain parts of the country, eutrophication caused by the leaching of nitrogen and phosphorous from arable land has been problematic (although the extent of nutrient leaching has been declining). Given the negative effect that this has on water quality, the RDP strategy therefore emphasises improving the quality of the water and reducing the environmental impact of farming. Environmentally friendly farming practices have therefore been recommended to address this through activities such as catch crops and creating wetlands.

The modifications introduced by the Health Check, which have been incorporated in the updated 2009 RDP, have also further aligned the RDP strategy towards tackling climate change and related areas.

With regard to specifically tackling climate change, the Health Check noted that the additional support would be used for agricultural training on climate change (CC adaptation and reducing green house gases), modernisation investments for farm holdings to prevent climate change and investments for microenterprises to prevent climate change.

In addition, the Health Check has underscored the requirement to develop renewable energies, improve water management and enhance biodiversity.

Allocation of the additional resources per type of priority



The overall budget of the Sweden RDP in terms of total public expenditure amounts to €4,041,471,551 of which €1,953,061,954 comprises the EAFRD contribution. This includes an additional allocation of €119,714,000 (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 assist the RDP objectives was targeted in the area of climate change (€18.67 million which equates to 16% of the new EAFRD allocation). These new financial supports should be considered in addition to the initial RDP which was already addressing climate change.

Under the enhanced RDP strategy, the main CC-related actions support investments to prevent climate change, and training on adaptation and reducing green house gases.

A breakdown of the total RDP budget per type of 'new challenge' it is not available. Full details of the overall RDP budget allocation can be found in the RDP fiche for Sweden that is 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 gases emissions

There is a strong focus on climate change mitigation within the measures of Axis 1 and 2 of the Swedish RDP. This covers initiatives to limit the use and leaching of fertiliser and plant protection products; cultivating catch crops; establishing riparian strips; encouraging organic production; utilising technology that reduces harmful emissions; reforestation; and training on how to reduce greenhouse gases.

Payments for environmentally friendly farming **measure 214** – *Agri-environment payments* will contribute to sustainable agricultural and forestry development (this also covers Natura 2000 territories under measure 213). This will be achieved through initiatives to limit the use of manure and organic fertiliser; provide restrictions on manure application, handling and storage; ensure that 50 to 60% of arable land is planted during the autumn or winter; provide precautions on handling and storage of plant protection products as well as requesting training on the use of such products; and ban cutting vegetation on set-aside land.

Sub-measure Reduced nutrient leakage from arable land **measure 214** – *Agri-environment payments* will contribute to the national environmental quality objective of *Zero Eutrophication* through initiatives such as cultivating catch crops, spring cultivation and establishing riparian strips alongside waterways. Sub-measure Environment protection measures **measure 214** –

Agri-environment payments aims to support the national environmental quality objective of *A Non-Toxic Environment*. To qualify for payments farmers must take on board a number of activities relating to the use plant protection products and fertilisers including establishing a farm gate nutrient balance; undertake soil-mapping; use a tested sprayer; determining the nitrogen content of manure; and establishing spray free edge zones. Sub-measure Organic forms of production **measure 214 – Agri-environment payments** aims to increase the scale of certified organic productions which contains limitations on plant protection and fertilisers as well as enhanced animal welfare standards. Sub-measure Ley management for a better environment and an open landscape **measure 214 -Agri-environment payments** aims to encourage sustainable land management by for example reducing nutrient leakage.

Another key measure which seeks to support mitigation activities is **measure 121 – modernisation of agricultural holdings** which provides financial aid to help farms to improve their performance by converting to sustainable production methods which will help to protect biodiversity, promote animal welfare, and increase environmental standards. This measure will therefore provide access to investments for environmental technology; enhance facilities which will contribute towards long-term sustainable, rational and environmentally friendly production; and investments for energy saving technology to meet climate demands. Additional funds from the Health Check will also target investments that prevent climate change.

Funding under **measure 227 – non-productive investments forest** aims to strengthen biodiversity through the establishment of broadleaf deciduous forests covering 2500 ha.

Assistance offered by **measure 111 and 114 –skill acquisition, information and dissemination of knowledge** will support the dissemination of knowledge and expertise to the agricultural and forestry sectors to ensure that the goals of axis 1 and 2 are realised and that enterprises link their activities with sustainable resource use and national environmental quality objectives. Initiatives include professional training, dissemination of knowledge and awareness raising (in areas such as environmental protection, landscape management, ecological production, animal welfare, animal conservation, environmental technology, sustainable reindeer herding and sustainable forestry). With the additional funds from the Health Check, the training will also include how to reduce agricultural greenhouse gas emissions.

Adaptation

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

The Swedish RDP delivers an array of support to help agricultural and forestry holdings adapt to the impact of climate change. This includes encouraging environmentally friendly farming, protecting biotopes and biodiversity, establishing wetlands, improving water management and training on adaptation issues.

Payments for environmentally friendly farming **measure 214 – Agri-environment payments** will contribute to sustainable agricultural and forestry development (this also covers Natura 2000 territories under measure 213). This will be achieved through initiatives to protect biotope zones; request holdings to produce a notification of intent if arable land is taken out of production; and provide rules governing water management in relation to drainage, digging, quality and creating dams etc.

Sub-measure Biodiversity and cultural heritage in semi-natural grazing lands, mown meadowlands and wetlands **measure 214 -Agri-environment payments** encourages farming practices that enhance biodiversity and landscapes. This includes payments for preserving semi-natural grazing and mown meadowland and management of wetlands. In addition, funds from the Health Check will further support practices under this sub-measure to help maintain

biodiversity. Sub-measure Valuable natural and cultural environments in the agricultural landscape and reindeer herding areas **measure 214 -Agri-environment payments** aims to preserve biotopes around arable land and preserve areas of high nature value where reindeer herding is practised. Submeasure Payments for regional priorities **measure 214 and 216 - Agri-environment payments and non-productive investments** will target funds to address issues of regional concern linked to national environmental quality objectives (this includes the establishment of wetlands). Sub-measure Traditional cultivated plants and livestock breeds **measure 214 -Agri-environment payments** aims to ensure the long term survival of local brown bean varieties and native livestock. Sub-measure Ley management for a better environment and an open landscape **measure 214 -Agri-environment payments** aims to encourage sustainable land management and enhance biodiversity.

Another key measure which seeks to support adaptation activities is **measure 121 – modernisation of agricultural holdings** which provides financial aid to help farms to improve their performance and convert to sustainable production methods which will help to protect biodiversity, promote animal welfare, and increase environmental standards. The measure will therefore provide access to investments for environmental technology; and facilities that contribute towards long-term sustainable, rational and environmentally friendly production as well as for enhanced animal welfare.

Through the funds provided by the Health Check **measure 216 - non productive investments in agriculture** aims to reduce the leaching of various compounds including phosphorus into water courses (particularly in nitrate sensitive areas). The actions include establishment of wetlands; establishment of sediment ponds; and controlled drainage.

Through support provided by **measure 125 – Infrastructure of importance to the development and adaptation of agriculture and forestry** financial aid will be provided to help modernise infrastructure in order to improve competitiveness. This includes investments for enhanced water management.

Assistance offered by **measure 111 and 114 –skill acquisition, information and dissemination of knowledge** will support the dissemination of knowledge and expertise to the agricultural and forestry sectors to ensure that the goals of axis 1 and 2 are realised and that enterprises link their activities with sustainable resource use and national environmental quality objectives. Initiatives include professional training, dissemination of knowledge and awareness raising (in areas such as environmental protection, landscape management, ecological production, animal welfare, animal conservation, environmental technology, sustainable reindeer herding and sustainable forestry). In addition, funds provided by the Health Check will provide training related to climate change adaptation and water management.

Measure 227 – *non-productive investments forest* - does not directly mention climate change, but does fund adaptation activities. Funding under the measure aims to strengthen biodiversity in forestland through the development of forestry management plans and the implementation of actions such as selected burning and increasing the amount of deadwood.

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

Axis/Measure	Description	Type of operation	Potential effects
Axis 1			
Measure 121	Modernisation of agricultural holdings	The measure will provide access to investments for environmental technology; production facilities that contribute towards long-term sustainable and environmentally friendly production as well as for enhanced animal welfare; and energy saving technology to meet climate demands.	A large number of farms will receive support to improve their environmental performance including using environmental saving technologies and reducing greenhouse emissions.
Measure 125	Infrastructure of importance to the development and adaptation of agriculture and forestry	Financial aid will be provided to help modernise infrastructure in order to improve competitiveness. This includes investments for enhanced water management.	The implementation of these activities will lead to improved water management infrastructure.
Measure 111	Skill acquisition, information and dissemination of knowledge	The measure delivers environmental protection training and awareness raising activities including in the area of climate change adaptation and water management.	The measure will improve knowledge on environmental protection, reducing greenhouse gas emissions and improving agricultural adaptation and water management.
Axis 2			
Measure 214	Agri-environment payments	This measure will contribute to environmentally-friendly farming through various initiatives including limiting the use of manure and plant protection products and provision of rules concerning better water management.	The impact of this measure will encourage environmentally friendly farming as well as enhancing biodiversity and reducing nitrogen leakage.

Axis/Measure	Description	Type of operation	Potential effects
Measure 214	Agri-environment payments – Submeasures	Measure 214 contains multiple submeasures that fund initiatives to preserve biotopes; establish wetlands; protect native plant and animal species; cultivating catch crops; better managing fertilisers; and reducing nutrient leaching.	The impact of this measure will contribute to a reduction in plant protection products and fertiliser use; improve the landscape and biodiversity; and preserve livestock and plant species.
Measure 216	Non productive investments in agriculture	The actions include establishment of wetlands; establishment of sediment ponds; and controlled drainage.	The measure will foster improved water quality and reduced nutrient leakage.
Measure 227	Non-productive investments –forests	This measure aims to strengthen biodiversity through the establishment of broadleaf deciduous forests.	The measure will ensure the establishment of 2500 ha of broadleaf deciduous forests.

Renewable energies

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

The measures within the Swedish RDP provide substantial support for the development of renewable energies which has been further strengthened by the Health Check. This includes support for activities that support the production of energy crops, the development of enterprises that produce renewable energy and training in relation to biomass and renewable energy production.

A key measure which seeks to support renewable energy activities is **measure 121 – modernisation of agricultural holdings** which provides financial aid for biomass action plans, production of biomass for energy purposes and establishing permanent energy crops (the objective is that the crops will cover 30,000 ha). The additional funds from the Health Check will also provide investments for renewable energy.

Measure 312 –business development in microenterprises aims to increase the number of microenterprises developing, commercialising and producing products or services in rural areas. Support for this measure includes accessing external services or the purchase of new facilities and equipment. This measure includes support for the development of microenterprises producing and processing renewable energy resources. With the additional funds provided by the Health Check, investments will be made for projects to prevent climate change and enhance the production of renewable energy.

The support offered by **measure 311** – *diversification into non-agricultural activities* will assist in increasing the number of agricultural enterprises producing non-traditional products and services. With the additional funds provided by the Health Check, investments will be made for projects to prevent climate change and enhance the production of renewable energy.

Assistance offered by **measure 111** – *skill acquisition, information and dissemination of knowledge* will support the dissemination of knowledge and expertise to the agricultural and forestry sectors. Funds provided by the Health Check will provide training under this measure related to the production of renewable energy and biomass.

A number of other measures do not directly mention climate change, but fund renewable energy activities. Assistance provided by measure 123 – *adding value to agricultural and forestry products* aims to improve the profitability of agricultural holdings through the further processing of agricultural and forestry products. This includes investment support for the development of bio-based products based on innovative and knowledge-based techniques.

Through support provided by measure 125 – *Infrastructure of importance to the development and adaptation of agriculture and forestry* financial aid will be provided to help modernise infrastructure in order to improve competitiveness. This includes investments for local energy production.

Main implemented RDP measures related to the development of RE sources

Axis/Measure	Description	Type of operation	Potential effects
Axis 1			
Measure 111	Skill acquisition, information and dissemination	Provision of training on renewable energy.	Large number of participants gaining knowledge on sustainable production of renewable energy in the forestry and energy sectors.
Measure 121	Modernisation of agricultural holdings	This measure supports investments for biomass action plans, biomass for energy purposes and establishing permanent energy crops.	Increase in the number of farms developing energy from biomass source including energy crops (the objective is that the crops will cover 30,000 ha) and other renewable energy sources.

Axis/Measure	Description	Type of operation	Potential effects
Axis 3			
Measure 311	Diversification into non-agricultural activities	Measure 311 will assist in increasing the number of agricultural enterprises producing non-traditional products and services. With the additional funds provided by the Health Check, investments will be made for projects to prevent climate change and enhancing the production of renewable energy.	The effect of this measure will be to foster a reduction of greenhouse gas emissions and enhance the production of renewable energy from farms.
Measure 312	Business development in microenterprises	This measure aims to increase the number of microenterprises developing, commercialising and producing products or services in rural areas. This includes the production and processing renewable energy sources for projects to prevent climate change and for projects enhancing the production of renewable energy.	Increase in the number of jobs connected to the development of microenterprises (in the renewable energy sector). In addition, the measure will help to reduce greenhouse gases and enhance the production of renewable energy from farms.