

FINLAND

**Suomen Maaseudun Kehittämissstrategia
/Strategi för utveckling av landsbygden i Finland
2007–2013** (*National Strategy Plan for Rural
Development together with 2 Rural Development
Programmes*)¹

Version:

*The Rural Development Programme for Mainland
Finland for 2007-2013, CCI2007FI06RPO001,
C(2007)3779 as last modified by Commission Decision
C(2009)9307;
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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 EUR⁽²⁾ have been made available for Member States (MS) to spend on this issues⁽³⁾. As a consequence, the operations related to these newly introduced Community priorities have been further strengthened in the RDPs.

¹ The Finnish regions are Mainland Finland and the Region of Åland.

² 19.8% of the total additional funds released.

³ 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) N. 73/2009) and the European Economic Recovery Package (EERP) .

Introduction - overview of Member State Strategy

The importance of CC in Finland is recognised. The National Strategy for Adaptation to Climate Change⁴ (drafted in 2005) evaluated the future effects of CC in Finland, as well as strengthening and increasing the ability of different sectors to adapt to CC. Although the three key areas of the National Strategy Plan (NSP) (sustainable and acceptable agricultural and forestry practices; competitive and diverse rural livelihoods; and enhanced quality of life) do not explicitly mention CC or RE, they do potentially support the new challenges for CC and RE. The NSP states that Finnish agriculture and forestry have the potential to contribute to the mitigation of CC and achieve climate policy objectives through the promotion of natural forest resources and other renewable bio-energy. The focus is therefore on mitigation and RE, rather than adaptation. Developing the production and use of wood energy and other forms of renewable bio-energy is a priority of axis 1 within the NSP. Supporting the reduction in GHG emission, the preservation of organic matter in the soil, and the carbon sink effect of renewable bio-energy produced on agricultural and forest land is a priority of axis 2.

Finland is a significant user of bio-energy, mainly founded on wood and wood-based fuels, and this use will increase. The Finnish Climate and Energy Strategy⁵ (presented in a report to the Finnish parliament on 6 November 2008) aims to increase Finland's share of RE use from 28.5 per cent to 38 per cent, as part of the EU Renewable Energy Directive. In addition, one objective of Finland's National Forest Programme (NFP 2015) is to increase the use of wood energy.

Climate change is considered in detail in terms of the baseline analysis, including the strengths and weaknesses assessment, upon which the two RDPs (for Mainland Finland and the Region of Åland) are based. All three aspects: mitigation, adaptation (including water management) and RE are addressed in the baseline analysis, although within the Region of Åland RDP the issue of mitigation has more limited coverage and does not feature as a main topic in the analysis.

In general, the Mainland Finland RDP covers a greater breadth of action regarding all three CC topics. The Region of Åland RDP is implemented on a much smaller and island-based geographical area and, as such, is more limited in the scope of activities supported, particularly in terms of adaptation. However, CC is still thoroughly considered within both RDPs with a range of actions supported under a number of measures. There is good spread between mitigation actions, adaptation and support for RE. Both RDPs have focussed on trying to minimise further CC, whilst realising there is a need to deal with and adapt to potential impacts.

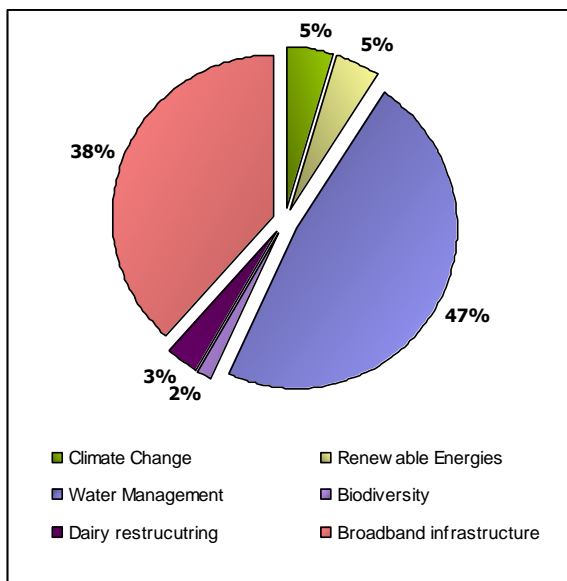
Allocation of the additional resources per type of priority

The overall budget of the Finland RDP in terms of total public expenditure amounts to €6,825,700,940 of which €2,155,018,907 is contributed by the European Agricultural Fund for Rural Development (EAFRD). This includes an additional allocation of €67.586 million (EAFRD contribution) as a result of the new challenges raised by the HC (including voluntary modulation) and the adoption of the European Economic Recovery Plan (EERP).

Of the additional HC/EERP allocation, the share for Mainland Finland is €66.998 million and that of the Region of Åland is €587,998. Following these changes, additional financial support to the RDP objectives related to CC (plus €3 million, 5% of the new EAFRD funds allocated to the programme) and RE (plus €3 million, 5%) has been enhanced for the period 2010-2013. However, all of this additional funding for RE and CC has been allocated to the amended RDP for Mainland Finland, with no additional resources allocated to these challenges in the Region of

⁴ Ministry of Agriculture and Forestry - <http://www.mmm.fi/en/index/frontpage/ymparisto/ilmastopolitiikka/ilmastomuutos.html>

⁵ Ministry of Employment and Economy - <http://www.tem.fi/?l=en&s=2542>

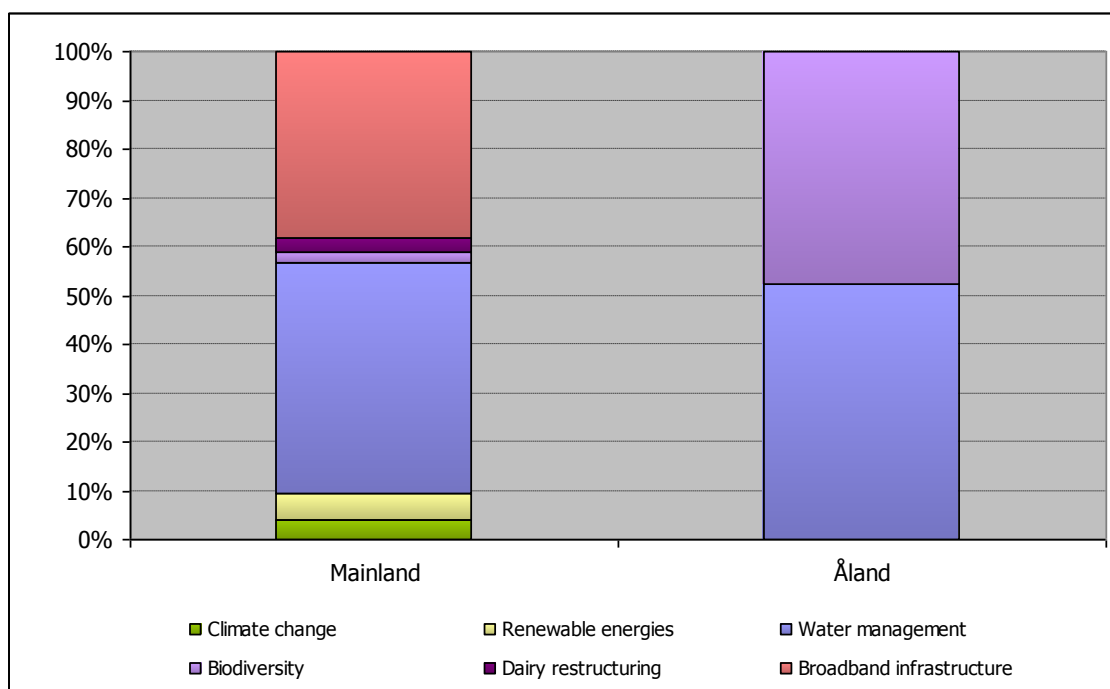


Åland. These new financial supports should be considered in addition to the initial RDPs in both of the Finnish regions which were already addressing CC and RE. Furthermore, €5 million of the existing EAFRD financing has already been transferred within the revised Mainland Finland RDP from measure 214 (agri-environment payments) to axis 3 for measure 312 (creation and development of micro-enterprises) to be used for RE sources.

Full details of the overall RDP budget allocation can be found in the RDP summary fiche for Finland 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

Allocation of the additional resources per type of priority – RDP detail



Mitigation

Activities aimed at reducing agricultural greenhouse gas emissions

Within both RDPs (Region of Åland and Mainland Finland) the key measure for supporting CC mitigation is **measure 214** (agri-environment payments), specifically with regards to the achievement of more sustainable use of fertilisers, better management, more appropriate application and where possible, an overall reduction in use. The reduction of GHG emissions is not explicitly referred to in either RDP, however, it is implicit in a broad range of sub-measures under measure 214. In addition to fertiliser management, these sub-measures include better manure storage, encouraging organic farming and using set-aside and riparian zones.

Given that the pre-HC RDP for the Region of Åland contained measures for reduced use of fertilisers, soil management practices and organic livestock farming, the Region of Åland authorities decided not to allocate additional HC funds for CC mitigation (or adaptation).

Although there are slight differences in the details of fertiliser application between the RDPs, the key aims are the same: to reduce fertiliser use and to fine-tune fertiliser application to crop needs.

Measure 221 (afforestation) is also included in the Mainland Finland RDP, but not in the Region of Åland RDP. However, neither RDP considers other forms of land use change, for example from arable land to permanent pasture, as a form of mitigation.

The Region of Åland RDP seeks to support the development of fertiliser plans, management, and soil mapping and organic matter management through "needs adjusted fertilisation". The Mainland Finland RDP looks at more "accurate fertilisation" to reduce nutrient loads and impacts on water and air, from leaching and atmospheric emissions. Both plans also make reference to activities such as set-aside, autumn tillage, and the use of riparian zones under measure 214, with the measure expanded in the Mainland Finland RDP to include support for crop diversification (to reduce the harm associated with monocultures).

In the Region of Åland RDP, support for energy saving investments (which help to mitigate CC by reducing CO₂ emissions) are possible under **measure 121** (environmentally-efficient technologies), **measure 123** (adding value) and **measure 124** (co-operation in developing new products). Under these three measures, explicit reference is made to supporting investment in environmentally-friendly heating fuel and investment in, and encouragement for, co-operation in bio-energy processes and products.

Within the Mainland Finland RDP, **measures 121** and **124** also contain mitigation measures. These comprise support for investment in manure storage and investment in energy saving products respectively. Specific operations financed following the HC under measure 124 in Mainland Finland include those relating to improving energy efficiency, so as to contribute to reduced carbon dioxide emissions by saving energy, substituting fossil fuels with biomass and reduction of GHG with other RE.

Finally, both the Region of Åland RDP and Mainland Finland RDP contain training and advice related measures, under measure 331 (Region of Åland) – training and information, and measure 111 (Mainland Finland) – vocational training and information actions. Climate change mitigation is not specifically mentioned under either of these measures before the HC, although reference is made to training based on the latest science which, given the focus of other measures, implies an environmental component. However, a specific operation financed following the HC under **measure 111** in Mainland Finland is training aimed at reducing GHG.

Adaptation

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

Measure 214 is the main mechanism through which the Region of Åland and Mainland Finland seek to support actions which help rural areas to adapt to the potential changes brought about by an altering climate. In response to area-specific conditions this is applied slightly differently between Mainland Finland and the Region of Åland. A number of other measures make some potential contribution. Neither RDP considers preventative actions for dealing with the impacts of CC in agriculture.

Through measure 214, actions to reduce insecticide use (linked to careful monitoring); landscape conservation; efforts to maintain genetic diversity (specifically local and indigenous breeds), and; improvements in water quality and storage with the use of break crops, and filter strips will be supported. The Mainland Finland RDP goes into considerably greater detail than the Region of Åland RDP, adding actions supporting crop diversification (to minimise the risks associated with monocultures), run-off water treatment, and the management of multifunctional wetlands.

Measure 121 (modernisation) is also used to support adaptation. In the Region of Åland this is through support for investment in improvements in agricultural store-houses, including environmentally friendly-heating. In Mainland Finland under measure 121, there are a greater range of adaptation actions such as: investment in biogas and bio-energy, and improvements in water collection, storage and treatment. Within the revised Mainland Finland RDP, support under this measure will be extended to the horticultural sector to help it adapt to weather fluctuations brought about by CC.

Both RDPs aim to support training and advisory services which enhance environmental practices, and improve knowledge and the development and uptake of environmental technologies. This is primarily referred to under **measure 111** (vocational training and information actions). The Region of Åland RDP refers to general training on environmental issues whilst the Mainland Finland RDP outlines support for specific training projects which look at conversion to organic production, application of the latest scientific knowledge, and advice on renewable technology. A specific operation financed following the HC under measure 111 in Mainland Finland is training for farmers related to CC adaptation.

Neither of the RDPs contains any actions for agricultural restoration relating to natural disasters or prevention.

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

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Axis 1				
Measure 121	Modernisation of agricultural holdings	Improve manure storage	Reduced GHG emissions	Mainland, Åland
		Energy-savings investments	Reduced GHG emissions	Mainland, Åland
Measure 123	Adding value to agricultural and forestry products	Energy-savings investments	Reduced GHG emissions	Åland

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Measure 124	Cooperation for development of new products, processes and technologies in the agriculture and food sector and in the forestry sector	Improving energy efficiency, substitution of fossil fuels by biomass and other REs	Reduced GHG emissions	Mainland
		Co-operation in bio-energy processes and products	Reduced GHG emissions	Åland
Measure 111	Vocational training and information actions	Training aimed at reducing GHG and adaptation	Reduced GHG emissions Increased adaptive capacity	Mainland
Axis 2				
Measure 214	Agri-environment payments	Actions to improve efficiency of fertiliser use	Reduced GHG emissions	Mainland, Åland
		Soil conservation, organic farming, extensification of pastures management	Reduced GHG emissions	Mainland, Åland
		Water saving production techniques	Increased resilience to drought	Mainland, Åland
		Wetland restoration	Increased resilience to floods and drought	Mainland, Åland
		Conservation of genetic resources	Maintaining genetic diversity	Mainland, Åland
Measure 221	First afforestation of agricultural land	Conversion of arable land into forest	Counteracting CC through the uptake of CO ₂	Mainland

Renewable energies

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

Both RDPs have integrated support for key aspects of RE, notably bio-energy products, technology, training and production. Support is also detailed for general improvements in energy efficiency and training and advice on environmental issues and technology. The Mainland Finland RDP goes into greater detail and explicitly references support for bio-energy throughout all, but one of its relevant measures. The Mainland Finland RDP also encourages a greater range of renewable activities, such as local energy production and vocational training in RE.

In contrast, the Region of Åland RDP does not explicitly refer to renewables under its relevant axis 3 measures. The Region of Åland authorities decided not to target RE for additional HC funding, as energy efficiency and RE was one of the six priorities of the European Regional Development Fund programme for the Region of Åland, which is currently funding the building of the first biogas plant on the Åland Islands.

For both RDPs, a key measure for supporting RE is **measure 121** (modernisation of agricultural holdings). In the Region of Åland, environmental investments are encouraged under this measure and reference is made to environmentally-friendly fuels and emissions reduction technology. This measure is given greater coverage in the Mainland Finland RDP and includes: investment in bio-energy and energy surveys; support for the use of biogas in milk and beef production, and; support for generally improving the environmental operation of agricultural holdings. Within the revised Mainland Finland RDP, support under this measure will be extended to the horticultural sector to help it transfer to more environmentally-friendly production structures using RE.

Both RDPs contain **measures 123** (adding value) and **124** (co-operation) and the details on support relevant to RE is similar under both plans. They focus on support for bio-energy, through investment and encouraging co-operative development in bio-energy processes and products (from farm and forest). Both plans also make explicit reference to environmental issues and technology under **measure 111** (vocational training and information actions). The Mainland Finland RDP again contains greater detail under this measure regarding RE, and outlines training projects for organic production, bio energy, and vocational training specifically addressing RE and saving energy. A specific operation financed following the HC under measure 111 in Mainland Finland is information and dissemination of knowledge related to RE. Furthermore, the level of aid for operations to promote processing of agricultural and forest biomass for RE under measure 111.3 (which combines measures 111 and 123) was increased by 10% within the revised Mainland Finland RDP.

Beyond these four measures, the Region of Åland RDP makes no further explicit reference to RE.

The Mainland Finland RDP, however, also refers to actions relevant to RE under a further three measures. Under **measures 311** (diversification) and **312** (business creation), investments in projects which support the production of bio-energy, and support for new and developing bio-energy enterprises are referred to. Within the revised Mainland Finland RDP, support has been extended to cover other RE, namely, solar, wind, and geothermal energy. Lastly, **measure 321** (basic services) aims to provide support for small-scale projects that develop local energy and promote their introduction.

Main implemented RDP measures related to the development of RE sources

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Axis 1				
Measure 121	Modernisation of agricultural holdings	environmental investments - emissions reduction technology; bio energy and energy surveys, biogas support	Substitution of fossil fuels Increased use of RE	Mainland, Åland
		horticultural sector support for environmentally friendly production structures using RE	Substitution of fossil fuels Increased use of RE	Mainland
Measure 123	Adding value to agricultural and forestry products	Processing of biomass for RE	Substitution of fossil fuels Increased use of RE	Mainland, Åland
Measure 124	Cooperation for development of new products, processes and technologies in the agriculture and food sector and in the forestry sector	Innovative operations to support development of RE	Substitution of fossil fuels Increased use of RE	Mainland
Measure 111	Vocational training and information actions	Information and knowledge dissemination related to RE	Increased use of RE	Mainland
Axis 3				
Measure 311	Diversification into non-agricultural activities	Processing of biomass for RE	Substitution of fossil fuels Increased use of RE	Mainland
Measure 312	Support for business creation and development	Installations for RE using biomass and other RE sources	Substitution of fossil fuels Increased use of RE	Mainland
Measure 321	Basic services for the economy and rural population	Support for small-scale projects that develop local energy and promote their introduction	Substitution of fossil fuels Increased use of RE	Mainland