

UNITED KINGDOM

Rural Development National Strategy Plan

(together with 4 regional Rural Development Programmes)¹

(The text of this summary sheet was finalised in November 2010 in accordance with the versions of the 4 regional RDPs that were current at this time)



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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 EU priorities have been further strengthened in the RDPs.

Introduction - overview of UK RDPs

Adapting to CC is recognised by farmers in the UK to be an important issue for farming. In February 2009, half of all farmers surveyed in England as part of Farming Futures⁴ said they were already affected by CC, and more than 60% expect to be affected in the next ten years.

⁽¹⁾ The United Kingdom RDP regions are: England, Wales, Northern Ireland and Scotland

⁽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) No. 73/2009) and the European Economic Recovery Package (EERP).

⁽⁴⁾ <http://www.farmingfutures.org.uk/> Farming Futures is a communications collaboration between the National Farmers' Union, Country Land and Business Association and the Agricultural and Horticultural Research Forum (representing the agricultural and horticultural levy boards), the Agricultural Industries Confederation, Forum for the Future and Defra that aims to provide inspiration and information for agricultural businesses to prepare for the impacts, opportunities, risks and responsibilities that climate change brings

The Rural Development National Strategy Plan (NSP) for the United Kingdom therefore addresses all three CC issues of mitigation, adaptation and the increased production of RE:

- **Mitigation:** Agriculture accounts for 47% of methane emissions in the UK and 67% of nitrous oxide emissions (but less than 1% of carbon dioxide emissions) so a twin-track approach to mitigation is presented in the NSP through a) reducing agricultural emissions of GHG and b) off-setting and reducing GHG emissions from the UK as a whole via bioenergy, carbon storage protection and sequestration in soils and forestry.
- **Adaptation:** The NSP foresees improving resource protection skills and management through axis 2 to address adaptation and contribute to better soil, air and water quality. In addition, adaptation is seen as important for woodlands through reducing fragmentation and isolation; diversifying monocultures for greater resilience, and; modifying species and provenance selection.
- **Renewable energy:** Although only very small amounts of RE have so far been produced from agricultural crops, by-products and waste in the UK, the NSP recognises that there is an enormous potential for forestry to make a major contribution to RE in the UK. The UK's rural development programmes are therefore viewed as important instruments for meeting the Government's CC objectives and, in particular, for encouraging energy crops and wood fuel production to increase the use of RE. The strategy states that UK rural development programmes will support the establishment of purpose-grown energy crops, for example, short rotation coppice (several species) and miscanthus. In addition, funds will be used to encourage and support innovation in the supply chain for forestry and agricultural crops for energy use. These activities will be targeted in areas where they would most appropriately link with heat or power generation. The NSP sees Axis 1 as exploiting opportunities for new enterprises and employment in the forestry sector, particularly in relation to RE. One of the key principles within the NSP regarding use of woodland to help address CC is that such activity will also bring benefits to other parts of the RDP. For example, harvesting wood fuel will diversify the economy, improve woodland biodiversity, and provide a lower cost alternative fuel in remote rural areas.

As rural development policy is an area of devolved responsibility within the UK, the UK has 4 rural development strategies, one each for England, Scotland, Wales, and Northern Ireland. Throughout the UK there has been a strong tradition of support for agri-environment and forestry measures which conserve and enhance biodiversity and landscape quality. These have been further developed within the current programming period (2007-2013) to create multiple benefits, including protection of water, soil, and air, and adaptation to, and mitigation of CC.

The issue of CC is comprehensively addressed in the baseline analyses upon which the 4 RDPs are based. All three aspects of CC, mitigation, adaptation (including water management) and renewable energies, are addressed in each of the four baseline analyses.

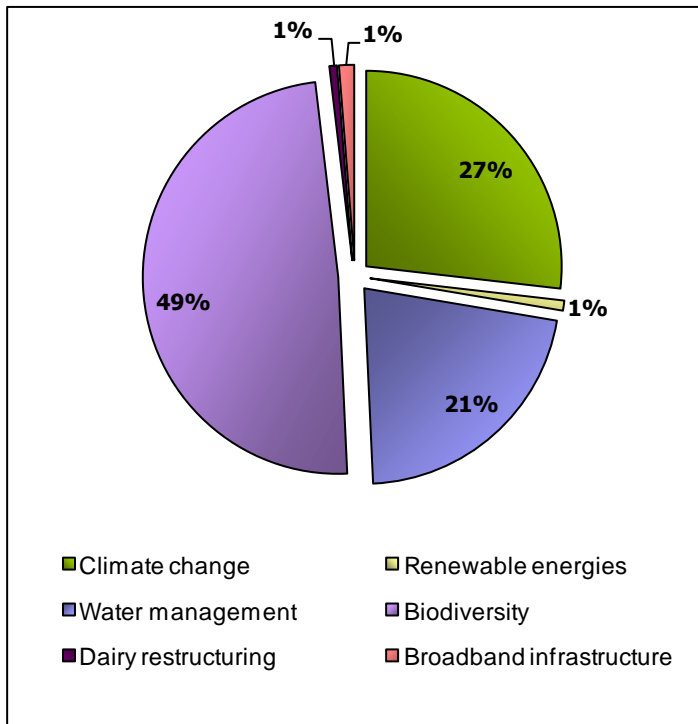
For example, the Wales RDP addresses mitigation and adaptation as main objectives within the RD strategy, whilst renewable energies are dealt with in a more limited way. Responding to CC by taking action to reduce emissions; adopting agri-environment measures to develop soil carbon sinks; producing and using energy more sustainably; dealing with flooding and severe weather events, and; protecting and enhancing biodiversity are all identified as key challenges that need to be met to achieve the objectives of axis 2.

In Northern Ireland strategic objectives relating to CC mitigation and adaptation are more limited, although RE is addressed in detail. The baseline analysis in Northern Ireland states that appropriate management of the environment to ensure a reduction in the emission of GHG is a key challenge to be met in order to achieve the objectives of axis 2. Within the analysis of strengths and weaknesses in Scotland, the low rates of on-farm diversification especially into RE

is recognised as a weakness, but so are the potentially adverse impacts that increased bio-energy production may have on biodiversity and soils.

In summary, all aspects of CC are considered important within the UK RDPs, although there is slightly less emphasis within Wales on the specific topic of renewable energies. However, this important aspect of the RDPs is further strengthened by the UK Renewable Energy Strategy which was published in 2009. The UK is signed up to the EU Renewable Energy Directive, which includes a UK target of 15% of energy from renewables by 2020 which is equivalent to a seven-fold increase in UK RE consumption from 2008 levels, the most challenging of any EU Member State. Increasing the supply of biomass through bringing more woodlands back into management, incentivising energy crops and researching new ones, and making better use of biomass waste are therefore important elements of the UK Renewable Energy Strategy.

Allocation of the additional resources per type of priority – UNITED KINGDOM



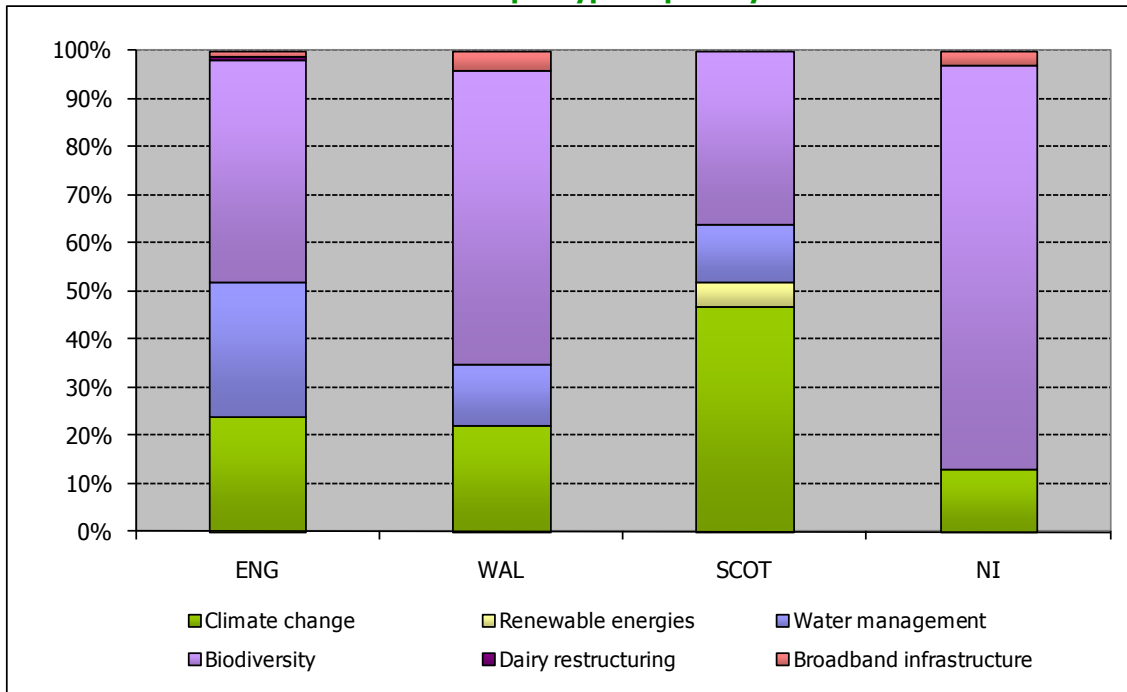
The overall budget of the United Kingdom RDP in terms of total public expenditure amounts to €8,149,052,635 of which €4,612,120,420 is contributed by the European Agricultural Fund for Rural Development (EAFRD). This includes an additional allocation of €482 million (EAFRD contribution) as a result of the new challenges raised by the CAP Health Check (including voluntary Modulation) and the adoption of the European Economic Recovery Plan (EERP). Following these changes, an additional €129 million has been allocated to the RDP objectives related to CC, plus an additional €4 million allocated to RE (27% and 1% respectively of the additional EAFRD contribution) for the period 2010-2013.

These new financial supports should be considered in addition to the initial RDPs in each of the UK regions, which were already addressing CC and RE. However it should be noted that, in the United Kingdom, the financial impact of the HC is broadly neutral as new compulsory modulation receipts are required to substitute for an equivalent reduction in voluntary modulation receipts.

A breakdown of the total RDP budget per type of 'new challenge' it is not available. However, further details of the RDP budget allocations per region can be found in the regional RDP fiches for the UK that 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

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



The EAFRD resources resulting from the HC and the EERP are unequally distributed across the four regions on the UK – the England RDP is allocated an EAFRD contribution of €315,986,502 (of which €3,324,690 comes from the EERP), Scotland €83,781,729 (of which €2,885,580 comes from the EERP), Wales €42,684,387 (of which €1,630,980 comes from the EERP) and Northern Ireland €40,093,432 (€1,380,060 from the EERP). In all cases, the additional amount derived from the HC revision contributes to strengthening the CC-related objectives which were already embedded in the NSP.

Additional resources are only allocated to RE within the amended Scotland RDP (5%), whereas additional resources are allocated to CC within all four regional RDPs varying between 13-47%.

Mitigation

Activities aimed at reducing agricultural greenhouse gas emissions

Activities aimed at reducing GHG emissions are an integral part of rural development across the United Kingdom. Within the four separate RDPs a range of CC mitigation actions are supported. The primary measure used is measure 214 (Agri-environment payments), although the application of this is very RDP-specific reflecting the different rural issues in each region. The aim of reducing GHG emissions was not explicitly referred to in any of the pre-HC RDPs, however they all contained a number of actions which potentially have a direct impact. In particular, supporting reduced fertiliser use (including cross-compliance with the Nitrates Directive) and encouraging increased afforestation. None of the amended regional RDPs

introduce new measures or operations to address CC mitigation, but instead all deliver through existing operations.

Within the amended England RDP the key measure for supporting CC mitigation is measure 214 under the sub-heading of 'mitigating the effects of climate change'. This receives support with HC funding for extensive forms of livestock management including various actions to manage fertiliser use, ensure plant and soil protection, and support changes in agricultural practice to reduce emissions.

Other measures and actions do not attract HC funding, but are still expected to contribute significantly to the aims of the new challenges, including CC mitigation. This includes actions funded under axis 2; the energy crops scheme under measure 121 of axis 1 (which also contributes to renewable energy targets), and; a wide range of other operations funded under axis 1 and 3 measures. These include measures 121 (Modernising agricultural holdings - environmentally efficient technologies); 123 (Adding value to agricultural and forestry products); 124 (Co-operation in developing new products); 216 (Non-productive investments) which contains support for restoring and reinstating boundary features, woodlands, and wetlands, and; 221 (First afforestation of agricultural land).

Some actions related to improving the competitiveness of the dairy industry which received additional HC funding under measure 121 may also help to mitigate CC through providing innovative management of farm wastes. Although they do not receive additional HC funding, measures 121, 122 (Improving the economic value of forests), 123, 125 (Infrastructure for agriculture and forestry), 221 and 223 (First afforestation of non-agricultural land) may deliver reduced emissions and have an increase in aid of 10% where these operations contribute to the new challenges.

Lastly, three training-related measures: measure 111 (Vocational training and information actions), measure 114 (Use of advisory services) and measure 115 (Management of advisory services) all support mitigation actions.

Within the Scotland RDP, actions for supporting CC mitigation are spread across a number of measures, with measure 214 being the key. A basic entry requirement for the agri-environment measure is that beneficiaries must comply with the Code of Good Agricultural Practice for the Prevention of Pollution From Agricultural Activity. Measure 214 comprises several actions to encourage better environmental land management; conversion to organic practices, and improved crop management. Mitigation activities supported by HC funding in measure 214 include improved soil management practices; extensification of livestock and grassland management, and change of land use (e.g. conversion of arable land to pasture). Grassland, peatland and machair management is also supported under measure 214 to improve environmental conditions.

HC funding is also allocated to reducing nitrous oxide emissions through the change of land use option under measure 216; establishing and maintaining woodland under measures 221 and 223; and reducing nitrous oxide and methane emissions by a range of actions supported under measure 121 including those relating to efficient fertiliser use, improvement of manure storage and biogas production using organic waste.

Lastly, although not explicitly linked to mitigating CC, the training measure within the RDP has a strong environmental component. Measure 111 (Vocational Training) refers to training farmers in environmental skills.

Within the Northern Ireland RDP the primary measure for supporting efforts to mitigate CC is again measure 214. Under this measure the following actions are explicitly referred to: support for conversion from conventional agriculture to organic production; support for reduced fertiliser

use; support for the development of farm waste management plans, and; a range of actions providing support for crop and habitat management for plant and animal species. Support for reducing GHG emissions (by reducing nitrous oxide emissions and sequestering carbon) is provided under measures 221, 222 and 223 - all of which aim to support afforestation and the establishment or expansion of forest on agricultural or non-agricultural land. These are all supported by HC funding.

Although not receiving HC funding, measure 121 makes reference to enhancing the environmental status of farms through investments in environmental practices and technology, whilst measures 123 and 124 refer respectively to adding value to products through the application of environmental management practices and encouraging co-operation in renewables.

CC mitigation actions in the Wales RDP are almost exclusively supported under measure 214. Again, measure 214 contains the minimum entry requirements in terms of soil nutrient management, manure management, nutrient analysis and 'no spread' zones as part of compliance with the Nitrates Directive. Under this measure a range of crop and habitat management actions are detailed. The measure also supports specific management for flora and fauna, including conversion to grassland and support for organic farming. Climate change mitigation is explicitly referred to for HC funding of operations in measure 214 to improve efficiency of nitrogen fertiliser use, soil management practices, and extensification of livestock and grassland management, which all aim to reduce methane and/or nitrous oxide emissions. In addition, it is expected that other measures will contribute towards CC mitigation including: measure 121, which provides details for support on improved manure storage; measure 221, which supports investment in afforestation; and measure 111, which provides support for training in diversification, agri-environment practices, and environmental land management.

Adaptation

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

Of all three CC issues, adaptation is the most poorly addressed across the UK, primarily because of lack of specific actions within the Wales and Northern Ireland RDPs. The England and Scotland RDPs consider water supply and efficiency of supply, adaptation training, farm diversification, and flood management. Within the UK the focus is not on prevention or necessarily reinstating agricultural production after natural disasters but much more towards developing the flexibility to cope with potential CC, for example, by conserving natural resources, landscape features, and species diversity. Because the financial impact of the HC is broadly neutral in the UK, none of the amended regional RDPs introduce new measures or operations to address CC adaptation since they do this through existing operations.

Within the England RDP measure 214 (Agri-environment payments) is the main measure which provides support to agriculture in adapting to the impacts of CC, although explicit reference to adaptation is limited in this measure. Under measure 214, flood management is specifically supported through actions to reduce flooding, by the creation of wetlands and natural buffers. Reference is also made to support for helping farms around natural features to adapt. The measure contains a number of other actions which could contribute to adaptation, including: soil protection; crop rotation; plant protection; biodiversity support; and hedgerow management. Operations within measure 214 which are affected by HC funding are focussed on delivering biodiversity improvements, but will contribute towards adaptation through integrated and organic production, and construction or management of biotopes and habitats within and outside Natura 2000 sites.

The second measure supporting adaptation is measure 125 (Infrastructure related to the development and adaptation of agriculture and forestry). Under this measure, support for investment in a range of infrastructure is given, which will contribute to securing water supply

and efficiency of supply. Reference is made to investment in infrastructure such as storage reservoirs, irrigation, drainage systems, water recycling facilities and water treatment.

The final measure making direct reference to adaptation is measure 111 (Vocational training and information actions) where training and advice in specific areas is supported, one of which is described as 'climate change adaptation'.

Four other measures could contribute to adaptation, including:

- measure 121 (Modernisation of agricultural holdings), which provides support for energy crops, RE, and investment support related to dairy production (which attracts HC funding, and may assist with adaptation);
- measure 216 (Non-productive investments), which provides investment support for restoring wetland (which attracts HC funding), boundary features, and tree planting, and;
- measures 114 and 115 (Use of, and setting up, advisory services), the former which supports advisory services for sustainable woodlands, and the latter which supports farmers in making environmental changes. The England RDP does not include preventative actions or the restoration of agricultural production after natural disasters.

Within the Scotland RDP, there is no explicit reference to CC adaptation within the measures and actions supported. However, there are a number of measures supporting activities which will help agriculture to cope with potential impacts. The key measure is 214, under which the following range of actions are supported: wetland development and management, including flood storage zones and buffer areas; crop management for enhancing biodiversity (wild seed mixes, stubble, etc); management of hedgerows for biodiversity and boundary feature planting and coppicing; and finally, through multiple sub-measures developed to help specifically conserve genetic resources in rural areas through practical support, such as the creation of early and late cover for corncrakes etc. Adaptation is supported under two other measures. A number of pre-existing operations under measures 214 and 216 which attract HC funding, although focussed on biodiversity enhancement, will also contribute to CC adaptation. And measure 227 supports conversion to more resistant forest stand types.

Measure 121 (Modernisation of agricultural holdings) provides a percentage of eligible costs for farmers wishing to restructure or diversify operations, and is important for potentially providing options for adapting to CC. Measure 125 (Infrastructure related to the development and adaptation of agriculture and forestry) provides capital investment support specifically to support energy supply and water management. The construction of storage reservoirs, reed-beds, and wetlands to deal with runoff and pollution are referred to.

Lastly, the training and advisory measure within the Scotland RDP (measure 111) makes general reference to environmental and conservation training, and the provision of skills and advice, and this measure could contribute to adaptation efforts. The Scotland RDP does not include preventative actions against extreme CC events. The pre-existing operation of conversion to more resistant forest stand types under measures 225 and 227 has attracted HC funding within the amended RDP in order to reduce the negative effects of CC.

Within the Northern Ireland RDP, there is a much more limited range of support for adaptation measures than in the respective England and Scotland RDPs, and the actions supported are much less specific. There is no explicit reference to CC adaptation within the measures or within the operation/measures which attract HC funding, although a number of actions are supported, which could be considered as adaptation actions, or at least can be seen as actions that will help agriculture to cope with CC impacts.

Measure 214 contains support for wetland enhancement to preserve habitats and species, hedgerow regeneration and planting, the maintenance of genetic resources, and waste

management. Measure 121 contains support for investment in 'enhancing the environmental status of farms' and investment in 'positive environmental impacts'. These offer very general support for environmental actions, which could encompass adaptation actions. Measures 221 to 223 support afforestation, and measure 111, training in new technologies. There is no reference to support for ensuring water supply, efficiency, or saving, and neither flood prevention nor preventative actions against adverse CC effects are described.

The Wales RDP contains a much more limited and general range of measures, which are similar to the Northern Ireland RDP with respect to CC adaptation. The most specific actions for coping with CC are described under measure 214 which provides support for: the establishment of streamside corridors, new reed-beds, swamps or salt-marshes; the conservation of flora and fauna through a range of crop management techniques; and the conservation, restoration, and creation of wildlife habitats, some of which attract HC funding within the amended RDP. Measure 111 also provides support, explicitly for agricultural diversification, through training in technology, agri-environment practices, and environmental land management. There is no reference to support for ensuring water supply, efficiency, or saving, and neither flood prevention nor preventative actions against adverse CC are described.

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

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Axis 1				
Measure 121	Modernisation of agricultural holdings	Improved efficiency of N use; improvement of manure storage	Reduction of methane and nitrous oxide emissions	Scotland, Wales
		Biogas production using organic waste	Reduction of methane emissions	Scotland
		Investment support related to dairy production (waste storage)	Reduction of methane emissions	England, Wales
Axis 2				
Measure 214	Agri-environment payments	Protecting / enhancing biodiversity	Biodiversity improvement/ resilience	Wales, Northern Ireland, England, Scotland
		Extensive forms of livestock management	Reduction of methane and nitrous oxide emissions; Biodiversity improvement/ resilience	England, Wales, Scotland
		Integrated and organic production	increased C sequestration; Biodiversity improvement/ resilience	England, Northern Ireland, Scotland, Wales

Axis/Measure	Description	Type of operation	Potential effects	Frequency
		Improved efficiency of N use; improvement of manure storage	Reduction of methane and nitrous oxide emissions	Wales
		Soil management practices	Reduction of methane and nitrous oxide emissions	Wales, Scotland
		Land use change	Reduction of nitrous oxide emissions; increased C sequestration,	Scotland, Wales, Northern Ireland
		Wetland restoration	Protection and improvement of water quality	Wales, Scotland
		Water storage	Improved capacity to use and store water more efficiently	Scotland
Measure 221	First afforestation of agricultural land	Afforestation, establishment of agro-forestry systems	Reduction of nitrous oxide emissions; increased C sequestration	England, Scotland, Northern Ireland, Wales
Measure 223	First afforestation of non-agricultural land	Afforestation, establishment of agro-forestry systems	Reduction of nitrous oxide emissions; increased C sequestration	England, Scotland, Northern Ireland, Wales
Measure 216	Non-productive investments	Land use change	Reduction of nitrous oxide emissions	Northern Ireland, Scotland
		Wetland restoration	Biodiversity improvement/ resilience; water quality	England, Scotland
Measure 225	Forest-environment payments	Conversion to more resistant forest stand types	Improved forest health leading to greater C sequestration	Scotland
Measure 227	Non-productive investments	Conversion to more resistant forest stand types	Reduction of negative effects of climate change on forests	Scotland

Renewable energies

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

Across the UK, renewable energies have been considered, although only the amended Scotland RDP allocates HC funding to renewable energies. However, each of the four RDPs has addressed the practical application of supporting and encouraging renewable energies in a slightly different way. Within the England, Scotland and Northern Ireland RDPs, measure 121 (Modernisation of agricultural holdings) is the key measure with additional support for RE provided to varying degrees through other measures. The England RDP has the strongest RE component, which is primarily concerned with the application and development of RE projects (products, technologies, and processes) within agricultural holdings and rural communities.

The Scotland RDP also has a strong focus on renewable energies, in particular through supporting micro-renewable generation. The Northern Ireland RDP deals mainly with energy efficiency and the application of technology to reduce energy use. The Wales RDP is considerably different in its approach to renewable energies. There is no measure 121 and a much more limited number of actions are referred to. Because the financial impact of the HC in the UK is broadly neutral, none of the amended regional RDPs introduce new measures or operations to address renewable energies, which they therefore deliver through existing operations.

Within the England RDP, renewable energies are supported across a range of measures. The key measure for supporting renewable energies is measure 121 (Modernisation of agricultural holdings). This encompasses support for: investment in energy crops; better ventilated crop storage; nutrient testing including better manure application and management; and RE projects. Measures 123 (adding value) and 124 (co-operation) also specifically refer to support for RE products, environmental protection, and innovative approaches, which 'could' include RE projects. Support for RE is also referred to within the relevant England RDP axis 3 measures, specifically: measure 311 (diversification), measure 312 (business creation) and measure 321 (basic services), which explicitly state support for environmental services and RE projects. Lastly, measure 111 (training) provides support training and advice in various areas including: CC adaptation and mitigation; energy efficiency; water use; environmental land management; and bio-energy.

Within the Scotland RDP, RE is supported across a range of measures with a focus on micro-generation. The key measure for supporting renewable energies is also measure 121, which is further supported by HC funding (through operations for biogas production using organic waste and processing of agricultural/forest biomass for RE). This encompasses support for: better manure management and storage facilities; support for investment in machinery and equipment for the production of biogas (anaerobic digestion); and support for RE in agriculture and forestry. This latter section specifically supports contributions towards the eligible costs of: purchase and installation; construction; upgrading; and development of infrastructure and/or equipment to enable agricultural and forestry businesses to develop small scale RE capacity (e.g. wind turbines, solar and biodiesel treatment). Measure 125 (infrastructure adaptation and development) also describes support for the upgrading of energy supplies, to make them more efficient and/or sustainable. Within the Scotland RDP, measure 312 (business creation) and measure 321 (basic services) also explicitly provide support for RE projects, in particular micro-generation. Measure 311 is further supported by HC funding, through operations for biogas production using organic waste, processing of agricultural and forestry biomass for RE, and installations and infrastructure for RE, using biomass and other RE sources. Lastly, measure 111 (vocational training and information) provides support for the development of general environmental skills.

Within the Northern Ireland RDP there is a narrower range of support for renewable energies than in the England and Scotland RDPs, although a number of actions are still supported across a range of measures. The key measure for supporting renewable energies is also measure 121. This encompasses support for the broad aim of 'increasing the environmental status' of farm holdings. Specifically, reference is made to investment in energy efficiency, such as rainwater harvesting, wood chipping, and the adoption of technology. Under measure 123, support is provided for adding value through improved environmental management and the application of technology. Under measure 124, co-operation and innovation is encouraged in the areas of RE and short coppice rotation. Lastly, measures 111 (training) and 311 (diversification) although not explicitly providing support for RE, refer to support for actions with an implicit environmental component, through mentoring and application of new technologies.

The Wales RDP contains the fewest RE actions, with limited support offered mainly within one measure. Support for investment in renewable energies and reducing energy use is largely encompassed under measure 123 – adding value to agricultural and forestry products. Two other measures could support renewable developments, although this is not explicit stated. Measure 124 refers to support for collaboration in process, product, and technology development and measure 111 provides support for training in technological advancement and agri-environment practices, for example, enhanced environmental land management. None of the relevant axis 3 measures within the Wales RDP make reference to renewable energies, energy supply, or bioenergy.

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	Investments for on-farm production and use of biogas	Increased production of RE; substitution of fossil fuels	England, Scotland, Northern Ireland
		Investments support for on-farm use of other renewable energies for electricity and heating (e.g., glasshouses, buildings)	Reduced emissions of GHG; increased production of RE	England, Scotland, Northern Ireland
		Plantation perennial energy crops (e.g., short rotation coppice and herbaceous grasses)	Reduced emissions of GHG; increased production of RE	England, Scotland, Northern Ireland
		Processing of agricultural/forest biomass for RE (e.g., biofuels) (on farm and local actions)	Improved energy efficiency; reduced GHG emissions; substitution of fossil fuels	England, Scotland

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Measure 123	Adding value to agricultural and forestry products	Improving the process and marketing of products. This includes support for production of RE	Improved energy efficiency; reduced GHG emissions	England
Measure 124	Cooperation for development of new products, processes and technologies in the agriculture and food sector and in the forestry sector			
Measure 125	Infrastructure related to the development and adaptation of agriculture and forestry			
Axis 2				
Measure 221	First afforestation of agricultural land	Afforestation, establishment of agro-forestry systems	Increased biomass availability	Scotland, Northern Ireland, Wales
Measure 223	First afforestation of non-agricultural land	Afforestation, establishment of agro-forestry systems	Increased biomass availability	Scotland, Wales
Axis 3				
Measure 311	Diversification into non-agricultural activities	Biogas production using organic waste	Substitution of fossil fuels	Scotland
		Processing of biomass for RE	Substitution of fossil fuels	Scotland
		Installations for RE	Substitution of fossil fuels	Scotland
Measure 312/321	Support for business creation and development/Basic services for the economy and rural population	support for renewable energy (non land-based)		Scotland