

GERMANY

Nationaler Strategieplan der Bundesrepublik Deutschland für die Entwicklung ländlicher Räume 2007- 2013

(The text of this summary sheet was finalised in May 2010 in accordance with the versions of the 14 regional Rural Development Programmes that were current at that time)⁽¹⁾

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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 these issues⁽³⁾. As a consequence, the operations related to these newly introduced Community priorities have been further strengthened in the RDPs.

⁽¹⁾ The German Regional Programmes include: Brandenburg & Berlin (BB/BE), Baden-Wuerttemberg (BW), Bavaria (BY), Hessen (HE), Hamburg (HH), Mecklenburg-Western Pomerania (MV), Lower Saxony & Bremen (NI/HB), North Rhine-Westphalia (NW), Rhineland-Palatinate (RP), Schleswig-Holstein (SH), Saarland (SL), Saxony (SN), Saxony-Anhalt (ST), and Thuringia (TH).

⁽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

There are 14 federal-state-level RDPs implemented in Germany, which incorporates regional variation with regard to how climate change issues are emphasised and being dealt with. Looking at Germany as a whole, adaptation is the aspect of climate change least considered. Renewable energies are addressed by focusing on the use of biomass and community-level renewable energy networks. Mitigation is addressed mostly through support for agri-environmental operations.

Climate change is among the challenges named in the German National Strategy Plan. The document amended in November 2009 also emphasises maintaining biological diversity (partly resulting from the increased production of bio-energy going along, for instance, with narrowing of crop rotations and monocultures), and sustainable water management.

With regard to greenhouse gas emissions stemming from German agriculture, the National Strategy Plan states that the sector has to reach a reduction by 14% until 2020 as compared to 2005 values, in order to meet the target fixed by the European Council in December 2008. Furthermore, the National Strategy Plan refers to the targets set by the federal government within the framework of the integrated energy- and climate programme (IEKP) to reach a GHG reduction of 20% by the year 2020.

Regarding the relevance of climate change issues, there are differences between the regional Rural Development Programmes: While the federal states of Bavaria (BY) and Baden-Wuerttemberg (BW) as well as North Rhine Westphalia (NW) name the impacts of land consumption, intensification of agriculture, and pollution on the environment as the main challenges, other federal states focus more on the economic and social challenges faced by rural areas. At the level of the German National Strategy Plan, the objectives most directly related to climate change issues and renewable energy are formulated for axis 2:

- production of renewable energy (agriculture and wood): +1.0% p.a. (annual average 2007-2013), and;
- avoiding or reducing emissions, undesirable inputs of substances and degradation in/of soil, water and air through corresponding land management measures (water, climate and soil protection).

According to a national-level study on the impacts of the Health Check and the European Economic Recovery Package on the German regional RDPs⁽⁴⁾, the actual allocation of the additional funds available is to the benefit of agricultural holdings' economic viability rather than the HC priorities they are formally assigned to. There are hardly any environment-related requirements as a precondition to funding (Tietz 2010, p.i).

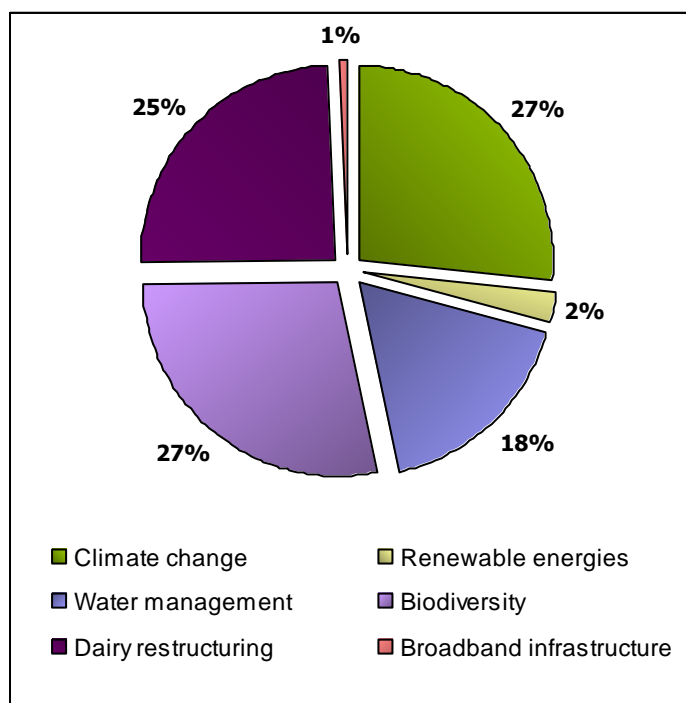
As stated by the above-named study, looking at the whole of German RDPs, a clear focus is on agri-environment measures (214) as well as investment support provided under measure 121. 64% (€604.5 million) of the HC and EERP funds available are allocated to measure 214, and 18% (€173.3 million) to measure 121. Corresponding to that, 8 German federal states use the additional EAFRD resources exclusively for support in axis 2 and/or axis 1 (of which 3 federal states use them for axis 2 only). The city state of Hamburg – as an exceptional case – exclusively uses the funds for HC-related Leader projects.

⁽⁴⁾ Andreas Tietz (2010): Auswirkungen von Health Check und EU-Konjunkturprogramm auf die ländlichen Entwicklungsprogramme der deutschen Bundesländer, Arbeitsberichte aus der vTI-Agrarökonomie 03/2010, Johann Heinrich von Thünen-Institut (vTI). Available at:
http://www.vti.bund.de/de/institute/lr/publikationen/bereich/ab_03_2010_de.pdf.

From the EC's indicative list of measures (included in the EAFRD regulation's new Annex II), M111, 124 and 331 are not addressed by the German RDPs within the framework of the Health Check, while some measures not included in the above-named list are covered (M215 and 411-413).

Regarding the creation of new measures in line with the 'new challenges', more than half of the German sub-measures offered are existing ones, and 'new' ones may comprise newly established partial measures (mostly under code 214) as well as re-established partial measures of the National Framework Directive. There are only a few new (sub-)measures related to climate change issues, e.g. *consulting for farms with special attention to climate- environment- and water-specific issues* (measure 114) in Saarland. In total, 76% of the additional EAFRD resources are used to support existing measures (Tietz 2010, p.12ff.).

Allocation of the additional resources per type of priority – GERMANY⁽⁵⁾



The total public expenditure allocated to Germany (national/regional + EAFRD contribution) is €14,574,522,688.86 of which €9,076,280,999 EAFRD contribution.

In terms of the 'new challenges', overall, the main financial emphasis throughout the German RDPs is on *biodiversity* (€327 million, i.e. 35% of the additional EAFRD resources available) – the only field of RDP impact named in all 14 RDPs. This is very close to the EU-wide main focus on biodiversity (31%). *Climate change* accounts for 19% (EU-wide: 14%), and *water management* for 18% (EU-wide: 27%). The main measures related to these three 'new challenges' are code 214 and 323.

The second priority is placed on *dairy restructuring* with 236 million (25%, EU-wide: 14%) of the additional EAFRD resources used within the framework of 12 German RDPs, mostly through measure 121. *Renewable energy* accounts for only 2% (EU-wide: 6%), and *broadband infrastructure* for less than 7% of the EERP for Germany (EU-wide: 7%) (Tietz 2010, p.12ff.).⁽⁶⁾

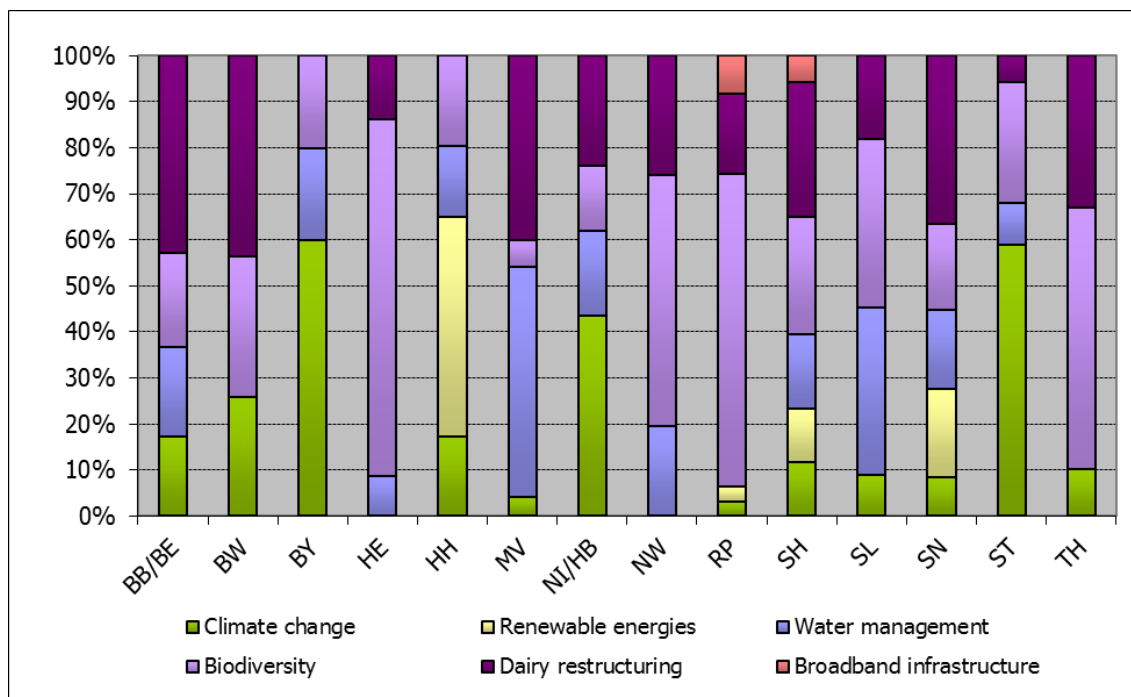
Full details of the overall budget allocations for the German RDPs can be found in the RDP summary fiches that are available at:

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

⁽⁵⁾ N.B.: The percentages indicated are taken from the following document: IP-10-102_EN.pdf, table 2, p.3f.

⁽⁶⁾ The values reported are taken from Tietz (2010). There are **deviations** compared to the values from IP-10-102_EN.pdf (table 2, p.3f.) used for the pie chart above. The national-level study names the difficulties regarding the calculations of 'challenge'-related budget due to some measures covering more than on 'new challenge', and missing information on the individual sub-measures' budgets.

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



The chart above shows the allocation of the additional HC funds in the 14 German Regional programmes according to the 'new challenges'.

The patterns of allocation clearly underline the regional differences in priorities. *Broadband infrastructure* and *renewable energies* receive additional funding in two and four of the federal states respectively, whilst *biodiversity* receives funding in all. This is in line with the overall German main focus (cp previous section) where *biodiversity* (according to Tietz 2010) accounts for the largest, and *broadband infrastructure* for the smallest share of additional EAFRD resources available. The latter is supported with EAFRD resources only in Rhineland-Palatinate and Schleswig-Holstein as this priority is already well covered, partly by national programmes, partly by the approved programmes (measure 321).

Mitigation

Activities aimed at reducing agricultural greenhouse gases emissions

Eight measures play a varyingly significant role with regard to climate change mitigation within the 14 German RDPs. In axis 1, these are – by order of relevance – measures 111, 114 and 121. Within axis 2, 214 and 221 are the measures relevant. Furthermore, axis 3 measure 323 and axis 4 measure 413 are to be named.

Climate change issues basically play a role throughout the German RDPs, the use of the additional HC and EERP funding for operations related varying. For instance, while Bavaria and Saxony-Anhalt use ca. 60% of the additional financial resources for climate-related operations, none of these funds are allocated to such operations in Hessen's and North Rhine Westphalia's RDPs (cp also Tietz 2010, p.51).

The contents of operations related to mitigation cover a range of issues, including qualification concerning organic farming, climate-change-related advisory services, fertiliser use and manure storage, as well as a variety of soil management practices and further agri-environmental operations.

Measures from pre-Health-Check analysis of the German RDPs and not furnished with HC and EERP funds are: M111 and 221 as well as some operations under M121 and 126 (marked grey in the table below). Measures 114, 121, 126, 214, 323 and 413 are supported with the additional funds named, and new operations have been established especially within the framework of measure 214.

In terms of the number of RDPs implementing the operations listed in the table, **measures 111** – operations relating to training on biomass production, organic farming and wider environmental matters – (six RDPs) **and 221** – operations relating to the afforestation of agricultural land in order to achieve the reduction of greenhouse gas emissions – (seven RDPs) can be regarded to play the main role. However, their share of budget in relation to the respective total axis funding is rather marginal.

While covering a large share of total axis 1 funding – far above half of the resources in most RDPs – **measure 121** is supported using the additional HC/EERP funds only in Rhineland-Palatinate (where M121 accounts for ca. 50% of axis funding). The operation relates to the improved efficiency of fertiliser use in order to reduce emissions of methane and nitrous oxide.

In terms of both number of RDPs covered and financial resources allocated, **measure 214** is of high relevance to climate mitigation issues. There is a range of operations supported using the additional HC/EERP funds in nine of the 14 RDPs. On average, over 60% of the total axis 2 funding are used for M214 by the federal states concerned.

While the newly introduced sub-measure '*Climate/water protection on permanent grassland*' plays a role only in Niedersachsen, operations related to a variety of *soil management* practices, *extensification*, and *organic farming* are implemented in a number of RDPs.

For example, in Baden-Wuerttemberg (besides five other RDPs covering related operations) the new sub-measure '*Enlarged crop rotation on arable land (5 crops)*' was introduced in order to contribute to the new challenge of climate change. In Bavaria, Baden-Wuerttemberg, Saarland and Rhineland-Palatinate, operations related to land use change (including e.g. extensive grassland management, conversion of arable land to permanent pasture, long-term set-aside) are implemented with the objective of climate change mitigation. The Berlin/Brandenburg and Saarland RDPs have allocated HC/EERP funds for the support of organic farming under the priority of climate change mitigation and adaptation. In the EC's working document on Saarland under

expected effects it is stated that 'the positive effects in the soil, surface and ground waters, climate change and air correspond to the new challenges in an ideal way' (p.4).

In axis 3, one operation under measure 323 related to land use change is supported using the additional HC/EERP funds in Mecklenburg-Vorpommern, intended to contribute to the reduction of nitrous oxide and to carbon sequestration.

In Hamburg and Schleswig-Holstein, operations to address climate change mitigation (and adaptation) are addressed under measure 413. The objectives are to reduce greenhouse gas emissions by saving energy, and (in SH) to support agriculture's adaptation to climate change.

Adaptation

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

There are only five measures significantly relating to climate change adaptation within the 14 German RDPs. These are measures 111, 114, 126, 214 and 413.

With regard to climate change adaptation, measure 111 plays only a minor role. The operation 'Training, demonstration projects, information actions' is implemented in Schleswig-Holstein by offering courses for persons from the agricultural sector with the objective of creating higher awareness of climate issues. A new 114 sub-measure on agricultural advisory services related to climate change was introduced in Saarland, aiming at both the reduction of greenhouse gas emissions and the adaptation to climate change.

Under measure 126, the 'Prevention of flooding and water management' is supported using the additional HC/EERP funds in Rhineland-Palatinate. The objective is to reduce the negative impact of climate-change-related extreme weather conditions on agricultural production.

Measure 214 operations related to climate change adaptation include: *soil management practices* (cp section on mitigation) intended to support adaptation to the effects of climate change on the soil, and *organic farming*.

In Schleswig-Holstein, operations to address climate change mitigation and agriculture's adaptation to climate change are addressed under measure 413.

Main RDP measures which contribute to address CC mitigation/adaptation issues⁽⁷⁾

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Axis 1				Regional RDPs
Measure 111	Vocational training and information actions	<i>Training, demonstration projects, information actions (in relation to climate change mitigation actions)</i> <i>BB/BE: Improvement of skills and consciousness of organic farming</i>	CC mitigation	BB/BE, MV, NI/HB, SH, TH

⁽⁷⁾ Information in cells marked grey is taken from the pre-HC CC measures Excel fiches. The measures concerned are not included in the post-HC EC working documents.

Axis/Measure	Description	Type of operation	Potential effects	Frequency
		<p>MV: Diversification through education within biomass production and biogas plants</p> <p>NI/HB: Qualifying sustainable organic methods for the protection of animals and resources</p> <p>SH: Better qualifications for people working in the agricultural, food and forestry sector - enabling them to take into account environmental matters</p>		
		<p>Training, demonstration projects, information actions (in relation to adaptation to climate change, water management)</p> <p>SH: Courses for people working in agriculture or forestry aiming at higher awareness of climatic conditions</p>	CC adaptation	SH (BB/BE ⁽⁸⁾ , TH ⁽⁹⁾)
Measure 114	Use of advisory services	<p>Use of agricultural advisory services in relation to climate change</p> <p>(SL: new sub-measure)</p>	Provision of advice to farmers to reduce greenhouse gases and to adapt to climate change	SL (NW ⁽¹⁰⁾)
		<p>New type of advisory services on energy, climate, water management and biodiversity</p>	Mitigation of climate-related gas emissions	ST
Measure 121	Modernisation of agricultural holdings	<p>Improve efficiency of nitrogen fertiliser use (e.g. reduced use, equipment, precision agriculture), improvement of manure storage</p>	Reduction of emissions methane (CH ₄) and nitrous oxide (N ₂ O)	RP

⁽⁸⁾ The measure supports qualification regarding environmental conditions, but although climate change plays an important role in the RDP, it is not specifically targeted in M111.

⁽⁹⁾ The approved programme emphasises the general need for qualifications concerning the protection of nature, landscape and streams (p. 209).

⁽¹⁰⁾ No additional post-HC funding

Axis/Measure	Description	Type of operation	Potential effects	Frequency
		<i>Development or adaptation of agricultural infrastructures, such as buildings (e.g. ventilation systems in livestock buildings)</i>	Reduction of CO ₂ emissions and energy efficiency emphasised	BY
Measure 126	Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention actions	<i>Prevention of flooding and water management</i>	Reducing the negative impact of climate change related extreme weather phenomena on the agricultural production	RP
		<i>Flood prevention</i>		BE/BB, BY, RP, ST, SH
		<i>Restoration of agricultural production potential (e.g., permanent cultivations damaged by weather extremes)</i> <i>Restoration of land after flooding</i>		NI/HB

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Axis 2				
Measure 214	Agri-environment pay-ments	<i>Soil management practices</i> <i>(e.g. crop rotation, tillage methods, catch crops)</i>	Reduction of nitrous oxide (N ₂ O), carbon sequestration Adaption to the effects of climate change on soil	BW ⁽¹¹⁾ , BY, NI/HB, SN ⁽¹²⁾ , ST ⁽¹³⁾ , TH ⁽¹⁴⁾ (MV ⁽¹⁵⁾ , NW ⁽¹⁶⁾)
		<i>Climate-/water protection on permanent grassland</i> <i>(new sub-measure)</i>	Reduction of GHG emissions	NI/HB
		<i>Land use change (extensive grassland management, extension of duration, conversion of arable land to permanent pasture, reduction of livestock density, long-term set-aside)</i>	Reduction of emissions methane (CH ₄) and/or nitrous oxide (N ₂ O)	BY, BW, SL, RP (NI/HB ⁽¹⁷⁾ , NW ⁽¹⁸⁾)
		<i>Organic farming</i>	Carbon sequestration (priority: climate change adaptation and mitigation) Positive effects on climate change	BE/BB, SL (HE ⁽¹⁹⁾ , MV ⁽²⁰⁾ , NI/HB ⁽²¹⁾ , TH ⁽²²⁾)

⁽¹¹⁾ New sub-measure: Enlarged crop rotation on arable land (5 crops)

⁽¹²⁾ New operation: Cultivation of arable fodder crops in order to ensure better soil protection

⁽¹³⁾ New operation

⁽¹⁴⁾ 3 new operations

⁽¹⁵⁾ No additional post-HC funding

⁽¹⁶⁾ N.B.: Climate change adaptation and mitigation are named among the priority, but biodiversity is the operation's main priority. New sub-measure: Cultivation of catch crops.

⁽¹⁷⁾ No additional post-HC funding

⁽¹⁸⁾ N.B.: *Climate change adaptation and mitigation* are named among the priority, but *biodiversity* is the operation's main priority.

⁽¹⁹⁾ *Water management* and *biodiversity* are the main priorities of operations under measure 214; the Hessen EC working document, however, mentions that 'organic farming also contributes to the objectives of the "new challenges" biodiversity, water management and climate change' (p.9).

⁽²⁰⁾ No additional post-HC funding

⁽²¹⁾ No additional post-HC funding

⁽²²⁾ No additional post-HC funding

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Measure 221	First afforestation of agricultural land	<p>Mitigation:</p> <p><i>Conversion of agricultural land into forest (afforestation)</i></p> <p>BY: Afforestation of agricultural land to reduce climate change and the deficit in forest resources</p> <p>SH: Compensation for loss of income resulting from afforestation for a period of up to 15 years after the plantation establishment</p> <p>TH: It is a priority to increase the percentage of wood</p>	GHG reduction	BY, MV, NI/HB, SH, SN, ST, TH
Axis 3				
Measure 323	Conservation and upgrading of the rural heritage	<i>Land use change</i>	Reduction of nitrous oxide (N ₂ O), carbon sequestration	MV
Axis 4				
Measure 413	Quality of life / diversification	<p><i>Operations to address climate change mitigation by improved energy efficiency;</i></p> <p><i>in connection with f) (innovation)</i></p> <p><i>(new sub-measure)</i></p>	Reduction of emissions by energy saving	HH
		<p><i>'All operations of Annex II concerning priorities</i></p> <p><i>a) Climate change adaptation and mitigation'</i></p>	Reduction of GHG emissions and adaptation of agriculture to climate change	SH

Renewable Energies

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

Within the 14 German RDPs, ten measures play a varyingly significant role with regard to renewable energies (RE). In axis 1, these are – by order of relevance – measures 121, 123, 124, 111, and 121. Within axis 2, 214 is the only RE-relevant measure. Axis 3 measures covering RE issues include 321, 331, and 311. Furthermore, axis 4 measures 411 and 413 are to be named.

Renewable energy issues basically play a role throughout the German RDPs, but only four federal states (HH, RP, SH and SN) use the additional HC and EERP funding for operations related to RE. The range of RE issues covered by German RDP operations is limited, focusing on biomass production with the main objective of substituting fossil fuels. Other sources of renewable energy, such as solar, wind and geothermal, are not emphasised concretely by naming related operations.

Measures from pre-HC analysis of the German RDPs and not furnished with HC and EERP funds are: M123, 124, 111, and 331 (marked grey in the table below). Measures 121, 214, 321, 311, 411 and 413 are supported with the additional funds named, and new operations have been established within the framework of 4 of these measures.

In terms of financial resources available per measure plus the number of RDPs implementing the operations listed in the table, **measures 121, 123, and 321** can be regarded to play the main role:

Among those measures not allocated HC and EERP funds (marked grey in the table below)⁽²³⁾, **M121 and 123** (besides M124 and 111) appear to be of the highest relevance with regard to the number of seven (M121) and six (M123) RDPs where related operations are implemented. Under measure 121, 'Investments for on-farm production and use of biogas' is the operation appearing most frequently, namely in five RDPs. Regarding total expenditure for M121⁽²⁴⁾, the average percentage of the seven RDPs concerned is ca. 64% of axis 1 resources.

Under measure 123, adding value to agricultural and forestry products is realised through operations such as processing biomass from agriculture and forestry for biofuel production. Regarding the total expenditure for M123⁽²⁵⁾, the average percentage of the six RDPs concerned is ca. 15% of axis 1 resources.

Operations implemented under measures 124 and 111 are of less relevance with regard to covering only few RDPs as well as only small shares of axis 1 resources (ca. 2% at maximum).

In axis 3, the operation 'Installations/infrastructure for renewable energy using biomass and other renewable energy sources' under **measure 321** plays a role in the RDPs of Rhineland-Palatinate and Saxony with regard to allocation of additional HC/EERP funds. In the latter federal state, this operation was newly introduced following the HC. The measure covers ca. 16% of the total (public + private) axis 3 resources in RP, and ca. 34% in SN. Furthermore, in RP the issue is also addressed within the framework of measure 311 using additional HC/EERP funds.

In several federal states, the operation 'Investment support for local energy supply: installations/infrastructure for renewable energy using biomass and other renewable energy sources (solar, wind power)' is addressed under measures 321 and 311; it had been covered before the

⁽²³⁾ Measures originally reported in the draft CC fiche provided by the CP, but not included in the post-HC working document.

⁽²⁴⁾ N.B.: Shares of expenditure are only available per measure, not per operation.

⁽²⁵⁾ N.B.: Shares of expenditure are only available per measure, not per operation.

Health Check, but is not supported by the additional financial resources (marked grey in the table below).

Axis 4 measures 411 and 413 are implemented – following the main objective of substituting fossil fuels – only in the two federal states of Schleswig-Holstein (M413) and Hamburg (M411 and M413).

Hamburg is an exceptional case among the German RDPs as the total additional amount of €1,335,962 (€909,694 resulting from the EERP, €426,268 from the Health Check including unused direct aid) was allocated to axis 4 in order to implement innovative actions of axes 1-3 related to the priorities linked to the new challenges. Of that, the largest share is used for operations supporting the generation of renewable energy from biomass, measure 413 as a whole covering ca. 85% of the total (public + private) axis 4 resources. In SH, the share is ca. 71%.

Main implemented RDP measures related to the development of RE sources⁽²⁶⁾

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Axis 1				
Measure 123	Adding value to agricultural and forestry products	<p><i>Processing of agricultural/forest biomass for renewable energy (e.g., biofuels) (on farm and local actions)</i></p> <p>BY: Support is given to make bio-ethanol – especially at distilleries where it is already a side product, but also in crop producing farms</p> <p>NW: The use of lumber as an alternative heating source is mentioned as a means to create employment. In the overall strategy the importance of biomasses as employment opportunities is mentioned</p> <p>SL: Main funding goes to small forestry businesses to help with machinery and the development of wood for energy usages</p>		BY, HH, HE, NW, SL, TH (MV ⁽²⁷⁾ , SN ⁽²⁸⁾)
Measure 121	Modernisation of agricultural holdings	<p><i>Investments for on-farm production and use of biogas</i></p>	<p>BY: Reduction of CO₂ emissions and energy efficiency emphasised; investments suggested in biogas use, though not emphasised</p>	BY, NW, MV, RP, TH

⁽²⁶⁾ Information in cells marked grey is taken from the pre-HC CC measures Excel fiches. The measures concerned are not included in the post-HC EC working documents.

⁽²⁷⁾ The (approved) programme's overall focus stresses the importance of biomass energy.

⁽²⁸⁾ No additional post-HC funding

Axis/Measure	Description	Type of operation	Potential effects	Frequency
		<i>Investments support for on-farm use of other renewable energies for electricity and heating (e.g. glasshouses, buildings)</i>		HH
		<i>Plantation perennial energy crops (e.g. short rotation coppice and herbaceous grasses)</i>		SN
Measure 124	Cooperation for development of new products, processes and technologies in the agriculture and food sector and in the forestry sector	<i>Processing of agricultural/forest biomass for renewable energy (e.g. biofuels) (on-farm and local actions)</i>		TH, SN (HE ⁽²⁹⁾ , HH ⁽³⁰⁾ , MV ⁽³¹⁾)
Measure 111	Vocational training and information actions	<i>Training, demonstration projects, information actions in relation with production and use of bio-energies</i>	<p>MV: Training agricultural workers in biomass production and the usage of alternative energies as a way to increase diversification and employment also helps climate change issue</p> <p>RP: One effect of training small forestry owners: availability of renewable resources, i.e. wood</p> <p>SH: Support for any counselling concerning the use of biomass for energetic purposes</p>	MV, RP, SH (TH ⁽³²⁾)
Axis 2				
Measure 214	Agri-environment payments	<i>Cultivation of catch crops or under-sown crops (new sub-measure)</i>	<p>Improvement of feed supply for (migratory) birds.</p> <p>Complement the expected increase of areas for maize production for renewable energy and therefore counteract the loss of biodiversity.</p>	BE/BB

⁽²⁹⁾ No additional post-HC funding

⁽³⁰⁾ No additional post-HC funding

⁽³¹⁾ The (approved) programme's overall focus stresses the importance of biomass energy.

⁽³²⁾ Approved programme, pre-HC: Qualification concerning bio-energy is mentioned among other targets, but is not defined exclusively.

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Axis 3				
Measure 321	Basic services for the economy and rural population	<i>Installations/infrastructure for renewable energy using biomass and other renewable energy sources (solar and wind power, geothermal)</i> SN: RE especially from agricultural or forestry production (new operation)	Substitution of fossil fuels	RP, SN
		<i>Investment support for local energy supply: installations/infrastructure for renewable energy using biomass and other renewable energy sources (solar, wind power)</i>		BY, NI/HB, NW, SH
Measure 311	Diversification into non-agricultural activities	<i>Installations/infrastructure for renewable energy using biomass and other renewable energy sources (solar and wind power, geothermal)</i>	Substitution of fossil fuels	RP
		<i>Investment support for local energy supply: installations/infrastructure for renewable energy using biomass and other renewable energy sources (solar, wind power)</i>		MV, RP, ST (BW ⁽³³⁾)
Measure 331	Training and information	<i>Training, demonstration projects, information actions in relation with production and use of bio-energies</i>	SH: Support for any counselling concerning the use of biomass for energetic purposes	SH, HE (TH ⁽³⁴⁾)
Axis 4				
Measure 411	Competitiveness	<i>Renewable energies using biomass from agriculture and forestry; in connection with f) (innovation)</i> (new sub-measure)	Substitution of fossil fuels	HH

⁽³³⁾ A business can obtain funding if it processes or sells biomass or uses biomass for heating; the main goals are diversification and employment not necessarily the climate.

⁽³⁴⁾ Approved programme, pre-HC: Qualification concerning bio-energy is mentioned among other targets, but is not defined exclusively.

Axis/Measure	Description	Type of operation	Potential effects	Frequency
Measure 413	Quality of life / diversification	<i>Renewable energies from biomass; in connection with f) (innovation) (new sub-measure)</i>	Substitution of fossil fuels	HH
		<i>'All operations of Annex II concerning priorities b) Renewable energies'</i>	Substitution of fossil fuels and reduction of GHG	SH