

# THE ROLE OF RURAL DEVELOPMENT POLICY IN CLIMATE CHANGE MITIGATION AND ADAPTATION IN AGRICULTURE

Sandra Naumann and Ana Freluh-Larsen

Ecologic Institute

## Background

### DG CLIMA study: Mainstreaming climate change in rural development policy post 2013

- ▶ Focus on new and/or innovative actions:
  - Not commonly or at all implemented in the past
  - Commonly implemented but can be improved in terms of scope, content or requirements
- ▶ Kick-start an ongoing process of knowledge exchange around climate action in RDPs



## Technical Guidance

- ▶ Inventory of new & innovative climate actions
- ▶ Technical fiches for 25 climate actions
- ▶ Best practice examples of climate-relevant LEADER projects 2007 – 2013
- ▶ New concepts for LEADER projects
- ▶ Examples of potential joint actions
- ▶ Suggestions for thematic sub-programmes
- ▶ Combinations of RD measures and green growth indicators

# 25 Technical fiches

## Mitigation Actions

M1	Extending the perennial phase of crop rotations
M2	Using cover/catch crops and reducing bare fallow
M3	Improving nitrogen fertiliser use efficiency
M4	Applying nitrogen fertiliser more precisely
M5	Biological nitrogen fixation (i.e. legumes) in rotations and in grass mixtures
M6	No-tillage
M7	Retaining crop residues on the field
M8	Loosening compacted soils and preventing soil compaction
M9	Avoiding the drainage of wetlands and the conversion of peatlands
M10	Feeding a higher fat content diet to cattle
M11	Precision and multi-phase feeding of livestock
M12	Solar fodder dryers
M13	Behavioural change towards better energy efficiency
M14	Climate proofing of planned on-farm investments
M15	Better livestock health planning
M16	Carbon audit

## Adaptation Actions

A1	Using adapted crops
A2	Using cover crops and reducing bare fallow
A3	Soil erosion control plan
A4	Reduced tillage and zero tillage
A5	Optimising adaptation benefits of shelterbelts and hedges
A6	Optimising the adaptation benefits of land drainage
A7	Improving irrigation efficiency
A8	On farm harvesting and storage of rainwater
A9	Optimising greenhouse cultivation

## Strategic programming opportunities

- ▶ Priority 4: Restoring, preserving and enhancing ecosystems dependent on agriculture and forestry;
- ▶ Priority 5: Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in the agriculture and food sectors and the forestry sector;
- ▶ Cross-cutting objectives: including climate mitigation and adaptation

## Potential RDP measures

- ▶ The **agri-environment-climate measure** (Article 28);
- ▶ **Investments in physical assets** (Article 17), investments to improve the competitiveness of the business or be non-productive in nature;
- ▶ **Knowledge transfer and information** actions (Article 14) and providing support for **advisory services**, farm management and farm relief services (Article 15);
- ▶ **Basic services and village renewal in rural areas** (Article 20)
- ▶ **Restoring agricultural production potential** and introduction of appropriate **prevention actions** (Article 18);
- ▶ **Investments in irrigation** (Article 46);
- ▶ **Quality schemes for agricultural products and foodstuffs** (Article 16); and
- ▶ **Organic farming** (Article 29).

# Potential topics for future LEADER projects

	Examples of project activities
<b>Renewable Energy</b>	Local and regional energy low carbon mobility planning, installation of renewable energy systems
<b>Capacity Building</b>	Activities that build ‘carbon consciousness’ among rural population and businesses, including awareness raising, the application of carbon audits, or carbon management action plans
<b>Adaptation Planning</b>	Stakeholder platforms or working groups to identify climate change vulnerabilities at regional / local scale, and to identify and implement adaptation strategies / options.
<b>Energy Efficiency</b>	Energy efficiency actions which can reduce individuals’ and communities’ carbon footprint include installing more insulation and energy efficient light bulbs, as well as upgrading insulation and energy equipment in buildings.
<b>Landscape</b>	Activities supporting resilience-building (e.g., flood risk management plans) and restoration of local wetlands and peatlands
<b>Water</b>	Local projects to improve water quality or adaptation actions in light of water scarcity concerns can include irrigation infrastructure improvements and small-scale financing for efficient equipment (e.g., drip systems), improved landscape management for natural filtration, and restoring riverbanks.

## Joint Actions under Cooperation Measure

- ▶ Joints actions involve at least two entities and the measure can also be combined with other measures
- ▶ Cooperation groups and projects can be set up
- ▶ Offers the possibility of testing solutions to climate-focused problem through mitigation and adaptation actions involving multiple stakeholders (e.g., advisors, farmers, researchers, the industry, local communities, municipalities, and environmental agencies)
- ▶ Enhances the scale and extent of climate actions through joint planning, design, and financing structures
- ▶ Can be used in combination with LEADER



## Example for joint actions: Climate change farm resilience planning



Farm resilience planning ©C. Tennant

- ▶ Testing methodology for Farm Resilience Plans: integrating natural environment, agricultural systems and recommends adaptive actions
- ▶ 10 pilot farms (October 2012 and February 2013)
- ▶ Successful integration of environmental assessment and farming business assessment

# Status of Implementation (DE, ES, IT, DK, FR, PL, SI, LT, HU, UK)

## First insights from SmartSOIL analysis (18 RDPs)

SmartSOIL practice	RDP Measures														
	M01	M02	M03	M04	M05	M06	M07	M08	M10	M11	M13	M14	M15	M16	M19
Cover / catch crops									9	1	1				
Crop rotation									7	5					
Reduced / conservation tillage				2					10	2					
Residue management	1	1		2		1			8					1	
Crop inputs (e.g., manure, compost)	1	1		4					5	1				1	

- ▶ M01: Knowledge transfer and informational action
- ▶ M02: Advisory services, farm management and farm relief services
- ▶ **M04: Investments in physical assets**
- ▶ M05: Restoring agricultural production potential damaged by natural disasters and catastrophic events and introduction of appropriate prevention actions
- ▶ M06: Farm and business development
- ▶ M07: Basic services and village renewal in rural areas
- ▶ M08: Investments in forest area development and improvement of the viability of forests
- ▶ **M10: Agri-environment-climate**
- ▶ **M11: Organic farming**
- ▶ M13: Payments for areas facing natural constraints
- ▶ M14: Animal welfare
- ▶ M15: Forest environmental and climate services and forest conservation
- ▶ M16: Co-operation
- ▶ M19: Support for LEADER local development, start-up kit, co-operation activities

## In conclusion

- ▶ RDPs offer a variety of options to support climate
- ▶ Flexibility in the programming makes it challenging to see the degree to which climate issues are being taken up
- ▶ It is expected that climate is likely to be of secondary importance and not a focus
- ▶ Capacity building and improved knowledge on how to integrate climate in RDPs is necessary
- ▶ Improve farmers' and rural stakeholders' awareness of climate solutions

---

# THANK YOU FOR YOUR ATTENTION.

## **FURTHER READS:**

<http://smartsoil.eu/smartsoil-toolbox/policy-options/>

[http://ecologic.eu/sites/files/publication/2015/mainstreaming\\_climatechange\\_rdps\\_post2013\\_final.pdf](http://ecologic.eu/sites/files/publication/2015/mainstreaming_climatechange_rdps_post2013_final.pdf)

Ecologic Institute, Pfalzburger Str. 43-44, D-10717 Berlin

Tel. +49 30 86880-0, Fax +49 30 86880-100

[sandra.naumann@ecologic.eu](mailto:sandra.naumann@ecologic.eu)

Project website: <http://www.ecologic.eu/10439>