

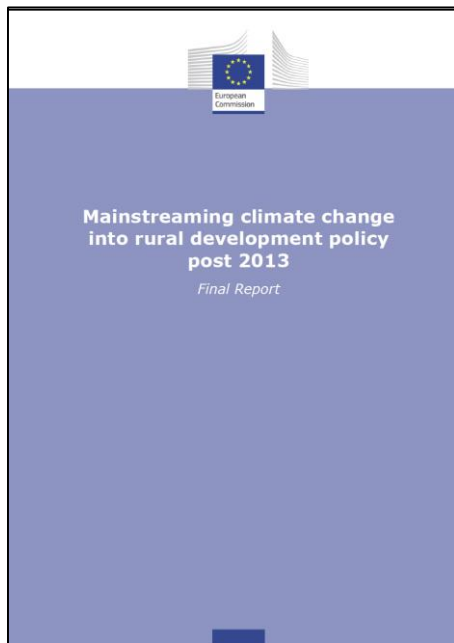
# **SUCCESS STORIES AND BEST PRACTICES - CLIMATE ACTION IN AGRICULTURE AND FORESTRY**

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# Study: Mainstreaming of climate change in rural development policy post 2013

DG Climate Action, 12/2013 – 09/2014



<http://bookshop.europa.eu/en/mainstreaming-climate-change-into-rural-development-policy-post-2013-pbML0614002/>

## Technical guidance

- ▶ Fiches for 25 new and innovative climate actions
- ▶ Best practice LEADER projects and new concepts
- ▶ Combinations of rural development measures
- ▶ Cooperation activities

## Today's presentation

- ▶ Introduction to technical fiches
- ▶ Examples of technical actions and possible combinations of measures
- ▶ Joint activities / collective action among land owners and rural stakeholders

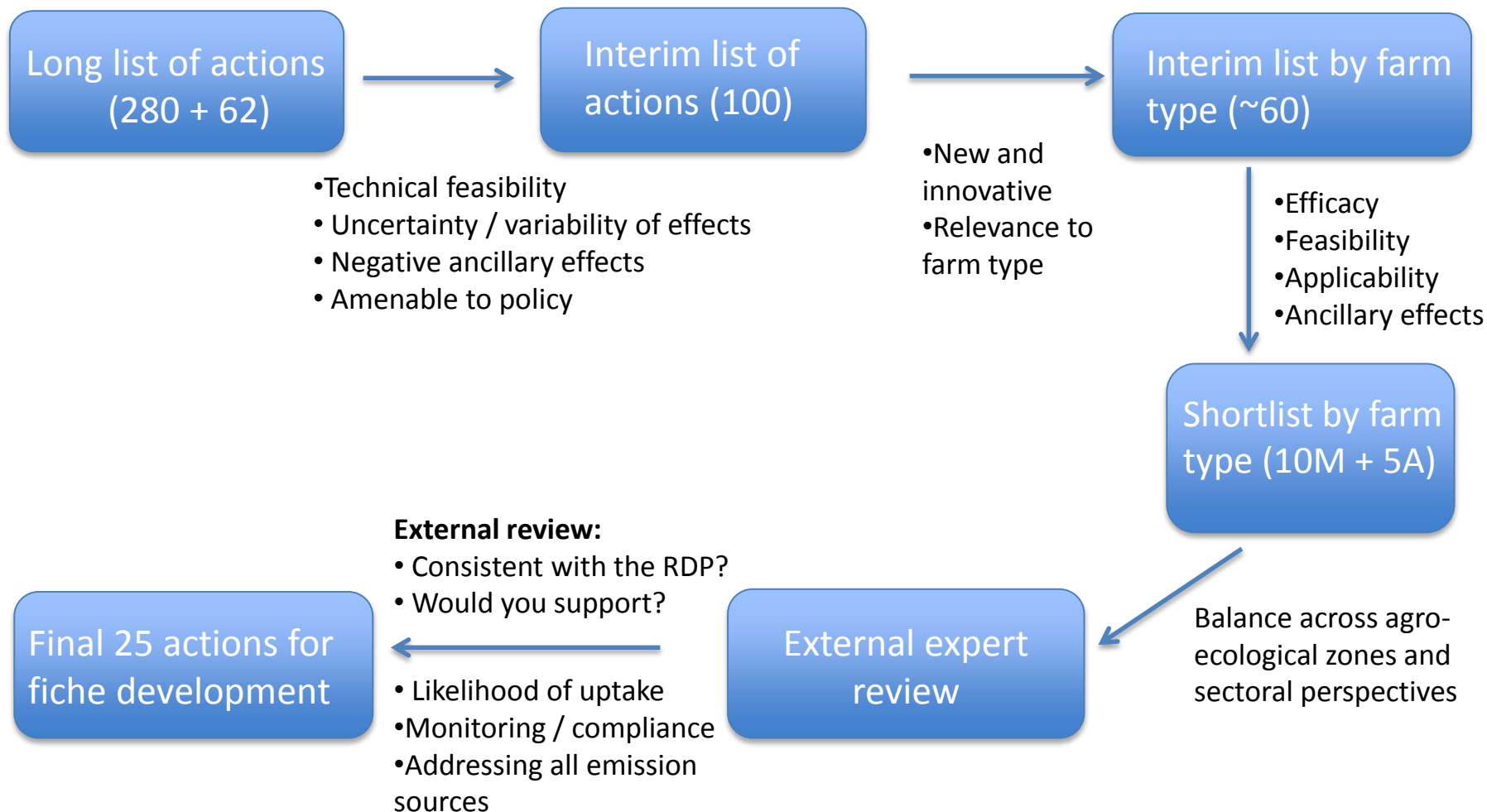
## Fiche Content




- ▶ An explanation of the mitigation / adaptation mechanism
- ▶ An example of how the action could be translated into an RDP operation.
- ▶ Guidance on the conditions likely to favour the operation.
- ▶ Guidance on the likely mitigation/adaptation effects, and any ancillary effects.
- ▶ Explanation of the main cost elements, indication of cost-effectiveness, any barriers.
- ▶ Underpinned by evidence.

## Selecting actions

- ▶ Mitigation solutions are complex, system- and region-specific, and impact also depends on actual management and skills
  - Examples are illustrative, non-exhaustive
  - Match the actions to regional & local conditions and needs

# Selection process for fiche development



Mitigation Actions	
M1	Extend the perennial phase of crop rotations
M2	Use of cover crops / reduced bare fallow
	Improve N efficiency
M4	Precise N application
M5	Biological N fixation in rotations and in grass mixes
M6	No-till
M7	Retain crop residues
M8	Loosen compacted soils / prevent soil compaction
	Restoration of wetlands
M10	Fat supplementation in ruminant diets
M11	Precision and multi-phase feeding
M12	Better livestock health planning
M13	Climate proofing planned investments
M14	Behavioural change towards better energy efficiency
M15	Solar fodder dryers
	Carbon audit

Adaptation Actions	
A1	Using adapted crops
A2	Use of cover crops /reduced 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



## Carbon Audits

- ▶ Identify emissions and benchmark over time and against other farms
- ▶ Run scenarios to investigate impact and possible actions
- ▶ Results-oriented measure, allowing problem-solving, flexibility, and consideration of ancillary effects
- ▶ Barriers: data requirements, costs, time
- ▶ Examples: Cool Farm Tool, JRC carbon calculator

## Improve N efficiency

- ▶ A result-oriented approach providing payments when N-surpluses are reduced below a defined threshold
- ▶ Enables flexibility on how the reductions are achieved
- ▶ Average of 2 – 3 years to account for weather conditions
- ▶ Reduced N<sub>2</sub>O emissions, maintain yields, reduced N leaching, improved water quality
- ▶ Several examples in Germany: e.g. Lower-Saxony
- ▶ Combination with carbon audit and training

## Combinations of actions and RD measures

- ▶ To better address needs and target support
- ▶ Context specific, need a clear logic
- ▶ Combine complementary actions with synergies, and when individual impact would be limited in absence of combination (e.g. manure 'chain')
- ▶ Complex activities, changes at landscape level (e.g. wetland restoration)

## Restoration of wetlands

- ▶ Avoid drainage and restore natural water table in drained peatlands
- ▶ Strong mitigation and other environmental benefits
- ▶ Requires the integration of many different measures and cooperation of land-users
- ▶ Due to very high emissions per hectare on drained organic soils, the net effect even with some leakage is positive
- ▶ A land-use concept for the wetland and region in order to minimise leakage

## Combination of measures for wetland restoration

**Studies to support the planning process**

+

**Investments for water management infrastructure, and  
land consolidation if necessary**

+

**Support for extensive land use (agri-env-climate)**

+

**Pilot projects to improve use of organic soils (e.g. paludiculture)**

+

**Training, advisory services and cooperation**

## Collective action

- ▶ Potentially significant leverage effects
- ▶ Ranging from machinery cooperatives, to testing of new concepts, and problem-solving around specific issues
- ▶ Peer-to-peer learning and demonstration

## Collective action – some existing examples

- ▶ 130+ LEADER projects focusing on climate action
  - ▶ L'arbre en Champ (FR & BE) – agroforestry audit and mobilisation
  - ▶ Cheviot Futures (UK) - wildfire management, tree planting
- ▶ French machinery cooperatives
- ▶ Scottish initiative Quality Meat Scotland  
(<http://www.qmscotland.co.uk/events/paraban-reloaded>)
- ▶ Harvesting and processing wetland biomass  
<http://www.crops4energy.co.uk/decc-wetlands-biomass-bioenergy-competition/>

## Collective action – examples of new topics

- ▶ Testing of regional schemes for N-efficiency and regional climate audit tools
- ▶ Development of regional strategies to increase resilience of forest stands to climate change
- ▶ Development of agro-forestry systems
- ▶ Farm resilience planning
- ▶ Production and certification of baking wheat without late 'quality fertilisation'
- ▶ Climate action networks (e.g. Farming for Better Climate)



## Concluding thoughts

- ▶ Actively engage land owners as problem-owners and problem-solvers
- ▶ Climate action can deliver multiple economic, adaptation and environmental objectives → landscape level management
- ▶ [www.smartsoil.eu](http://www.smartsoil.eu)  Sustainable farm Management Aimed at Reducing Threats to SOILs under climate change

## Thank you for your attention.

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