



Project Outline



LIFE AgriAdapt

Sustainable adaptation of typical EU farming systems to climate change

Project partners

- Lake Constance Foundation (Coordination of project and implementation in Germany)
- **Fundación Global Nature (Implementation in Spain)**
- SOLAGRO (Implementation in France)
- Estonian University of Life Sciences (Implementation in Estonia)

Project timeframe

01.09.2016 – 31.12.2019 (40 months)

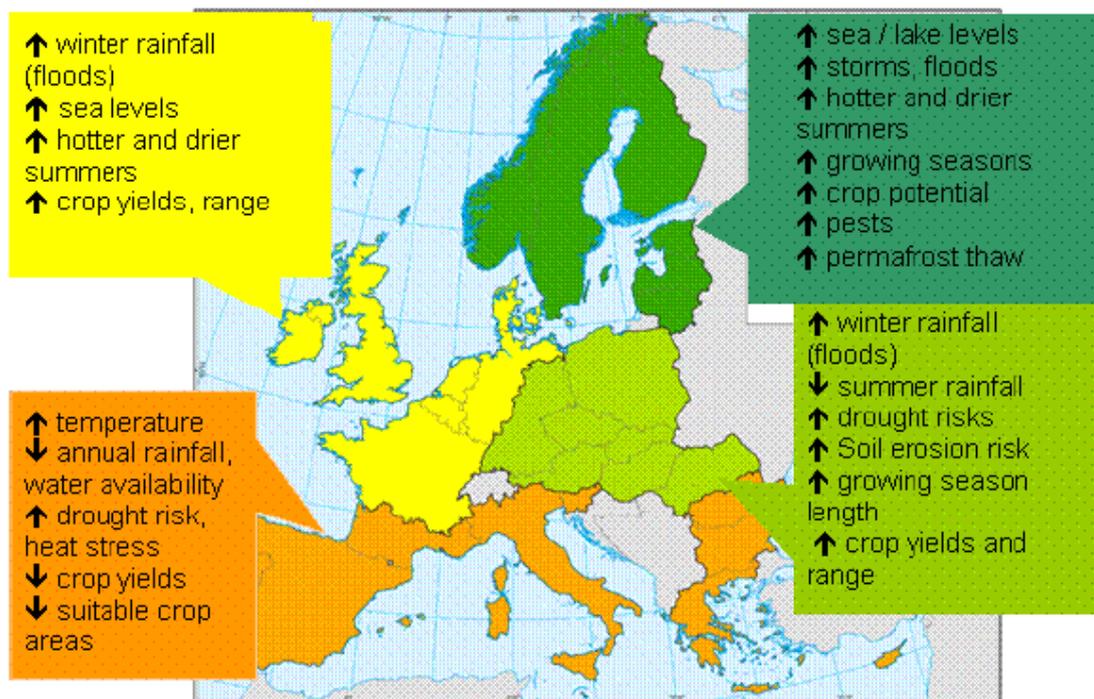
Baseline

Climate change is now recognized as one of the most serious environmental, societal and economic challenges the world is facing. There is clear scientific evidence that high concentrations of greenhouse gases (GHGs) in the atmosphere, due to human activities, are intensifying the natural "greenhouse effect" and correspondingly increasing the Earth's temperature. Concentrations of GHGs, mainly carbon dioxide (CO₂), have increased by 70% since 1970. Europe has warmed by almost 1°C in the past century, faster than the global average, and most of the warming has occurred in the last 50 years. In the 2014 IPCC report, mainly negative impacts of climate change on agriculture have been predicted till the end of the century, not only in tropical regions but also in temperate zones such as Europe.

Agriculture will face challenges over the coming decades in many regions, such as an increasing international competition, further liberalization of trade policy and further declines in the rural population. Climate change adds to these pressures on agriculture as the need exists to reduce GHG emissions while adapting to a changing climatic environment.

Agriculture is the economic sector which has the highest exposition to climate change, as farming activities directly depend on climatic factors. Rising atmospheric CO₂ concentration, higher temperatures, changes in annual and seasonal rainfall patterns and in the frequency of extreme weather events will affect the volume, quality and stability of food production.

European farmers will therefore have to adapt to a changing climate, which will mean shifts in the location of agricultural production, changes in management practices on individual farms and diversification of income sources. Although some climatic changes will have positive effects on European agriculture, most changes will have negative impacts and will affect regions already suffering from environmental degradation. Over the next decades, climate change adaptation measures need to go beyond mere adjustments of current practice and have to be sustainable.



Demonstration of the four EU Climate Risk Regions (each risk region is a region which is affected in a similar way by climate change). Source: EU Commission Agriculture and Rural Development 2009: Adapting to climate change; the challenge for European agriculture and rural areas

Project objectives

The overall objective of this project is to demonstrate that three of the most important farming systems in the EU (livestock, arable and permanent crops) will become more climate-resilient through the implementation of feasible adaptation measures which also have positive crosscutting environmental benefits. The geographical scope of the project covers the four EU Climate Risk Regions and will ensure the transfer of results and lessons learned to all EU Member States. Each EU Climate Risk Region is represented by a project partner: Southern Europe (project partner in Spain), Western Europe (project partner in France), Central Europe (project partner in Germany), and Northern Europe (project partner in Estonia).

The specific objectives of the project are:

- to **improve the knowledge base for the development, assessment and monitoring of the climate change vulnerability on farm-level** by developing and testing a common method ready for use in the four EU Climate Risk Regions (Southern, Western, Central and Northern Europe)
- to **test sustainable measures and management approaches for climate change adaptation** by identifying and implementing them on 120 pilot farms, consisting of the three main farming systems (arable land, livestock, permanent crops), in the four EU Climate Risk Regions through concrete action plans
- to **promote sustainable adaptation measures and to enhance the capacity to apply that knowledge in practice** by demonstrating and disseminating actions for farmers, farmers

associations, technical consultants, food standard organisations and agricultural assurance companies

- to **raise awareness and know-how of current farmers and future farmers** for sustainable adaptation options on farm level by developing, creating and disseminating training packages for agriculture trainers, schools and capacity building centres and stakeholders
- to **contribute to the development and implementation of Union policy on climate change adaptation** by transferring best-practise and know-how to political, agricultural and food business stakeholders on regional, national and EU-level and by mainstreaming across policy areas.

Target groups

Besides farmers the main target groups of the project are:

- Farmer associations
- Technical consultants
- Agricultural schools and training centres
- Food standards and labels
- Agricultural insurers

Actions and means involved

The above mentioned objectives are achieved by following actions:

Preliminary phase (September 2016 – May 2017)

During the preliminary phase, each project partner will create a baseline report with the contribution of climate regional/national change experts.

- **Creation of 4 baseline reports** (one for each of the 4 main EU Climate Risk Regions: Southern, Western, Central and Northern Europe) **covering the European issue of climate change**, with contribution from national/regional experts (A1)

Furthermore, each project partner will create 3 catalogues (1 for each farming system) with possible sustainable adaptation measures, each project partner will choose 30 pilot farms and will create a steering board committee (A2)

- Creation of **12 catalogues of measures** (for each farming system (arable land, livestock, permanent crops) and each EU Climate Risk Region)
- Creation of steering committee board
- Selection of 120 pilots farms

All project partners will jointly develop an assessment tool to analyse the climate change vulnerability at farm level and will develop a communication strategy for the duration of the project.

- **Development of a common assessment tool to analyse the climate change vulnerability at farm level**, both in agronomic and economic terms, able to cover the four main EU Climate Risk Regions and the diversity of the main EU farming systems (A3)

- **Development of a common communication strategy** as a base for all core and dissemination actions (A₄)

Development and testing phase on the 120 pilot farms (June 2017 – July 2019)

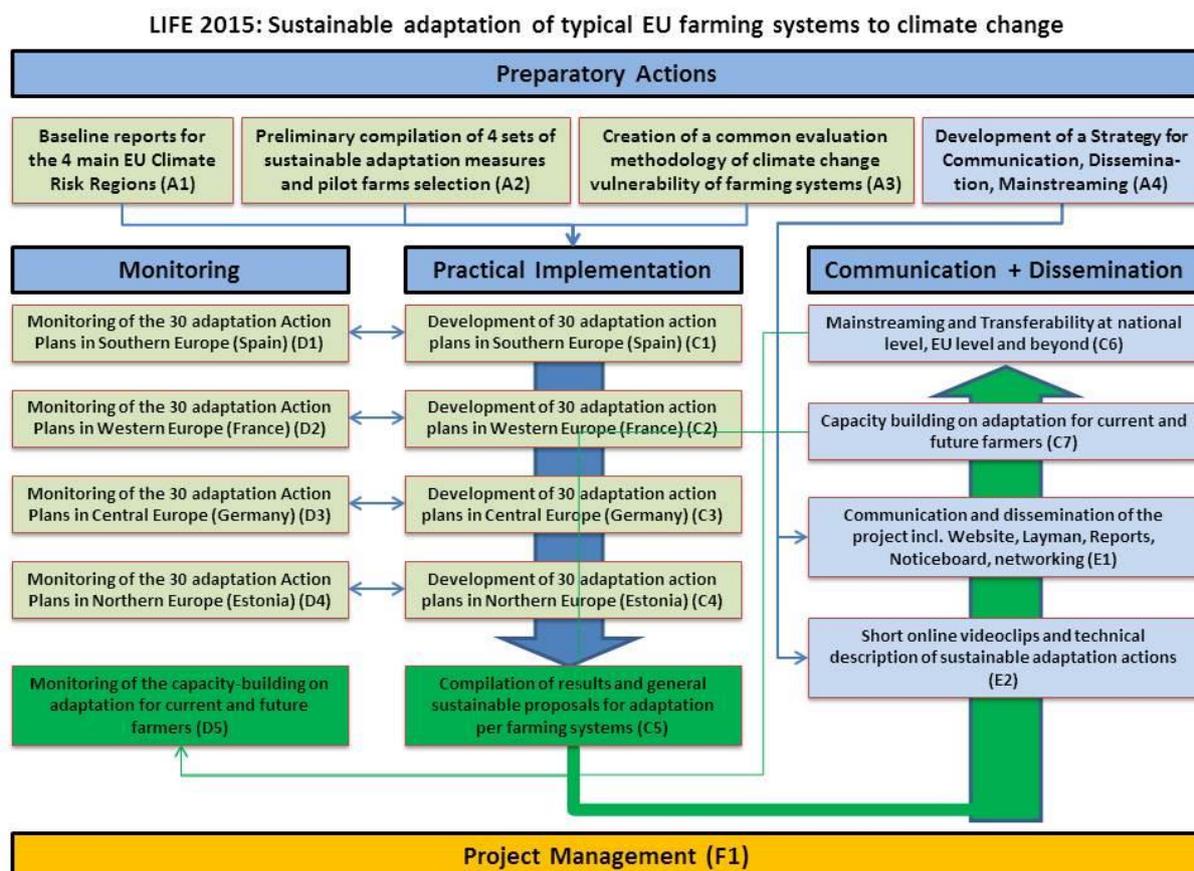
According to the approach developed in the finalised LIFE project “Agri-ClimateChange”, all project partners will analyse their pilot farms and will develop farm tailored sustainable adaptation measures. These adaptation measures will be updated annually and the results will be summarised according to their transferability.

- **Compilation of Adaptation Action Plans for 120 pilot farms** in Spain, France, Germany and Estonia (including data compilation, first assessment with common tool)
- **Creation of farm level tailored adaptation measures** for improving the farm’s resilience (short and long term) (C₁, C₂, C₃, C₄)
- **Annual Monitoring of 120 Adaptation Action Plans** in Spain, France, Germany and Estonia (D₁, D₂, D₃, D₄) in 2018 and 2019
- **Creation and annual update of an EU Database** (vulnerability results of the 120 farms and their corresponding action plans (C₁-C₄ and D₁-D₄)
- **Creation of General proposals for farming systems** (arable land, livestock, permanent crops) (C₅)

Dissemination and communication phase of project results/knowledge transfer (July 2017 – December 2019)

The dissemination of the project results and knowledge transfer are essential project modules. The project results will be presented and discussed with the main target groups and stakeholders in workshops, webinars etc. The aim is to later incorporate these sustainable adaptation measures into politics, labels and standards, insurances, and agricultural schools and training centres.

- **Demonstration of the feasibility and transferability of the common tool and the sustainable adaptation measures** to political, agricultural and food industry stakeholders on national level, EU level and beyond by:
 - 8 expert meetings
 - 28 demonstration workshops
 - 8 expert workshops
 - 2 webinars
 - 8 expert meetings for EC and FAO
 - 4 transnational conferences in Spain, France, Germany and Estonia (C₆)
- **Capacity Building for current and future farmers** by networking with capacity building stakeholders
- **Development and distribution of a “Farming Adaptation Training Pack”** in 5 languages for all four EU Climate Risk Regions (C₇)
- **Communication and dissemination of the project** and its results and events via website, noticeboard, newsletters, brochures, press releases, networking on regional, national and EU level and short online videos for all relevant target groups and stakeholders (E₁, E₂)



Content structure of the project (Source: own representation)

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