



• CONTENTS FOR “FARMING ADAPTATION TRAINING PACK “ ACTION C7 •

June 2017



1. The project: LIFE AgriAdapt “Sustainable adaptation of typical EU farming systems to climate change”

1.1. PROJECT PARTNERS

The geographical scope of the project covers the four EU Climate Risk Regions: Southern Europe, Western Europe, Central Europe and Northern Europe. Each region is represented by a project partner.

- **ESTONIAN UNIVERSITY OF LIFE SCIENCES (ESTONIA)**
- **FUNDACIÓN GLOBAL NATURE (SPAIN)**
- **LAKE CONSTANCE FOUNDATION (GERMANY)**
- **SOLAGRO (FRANCE)**

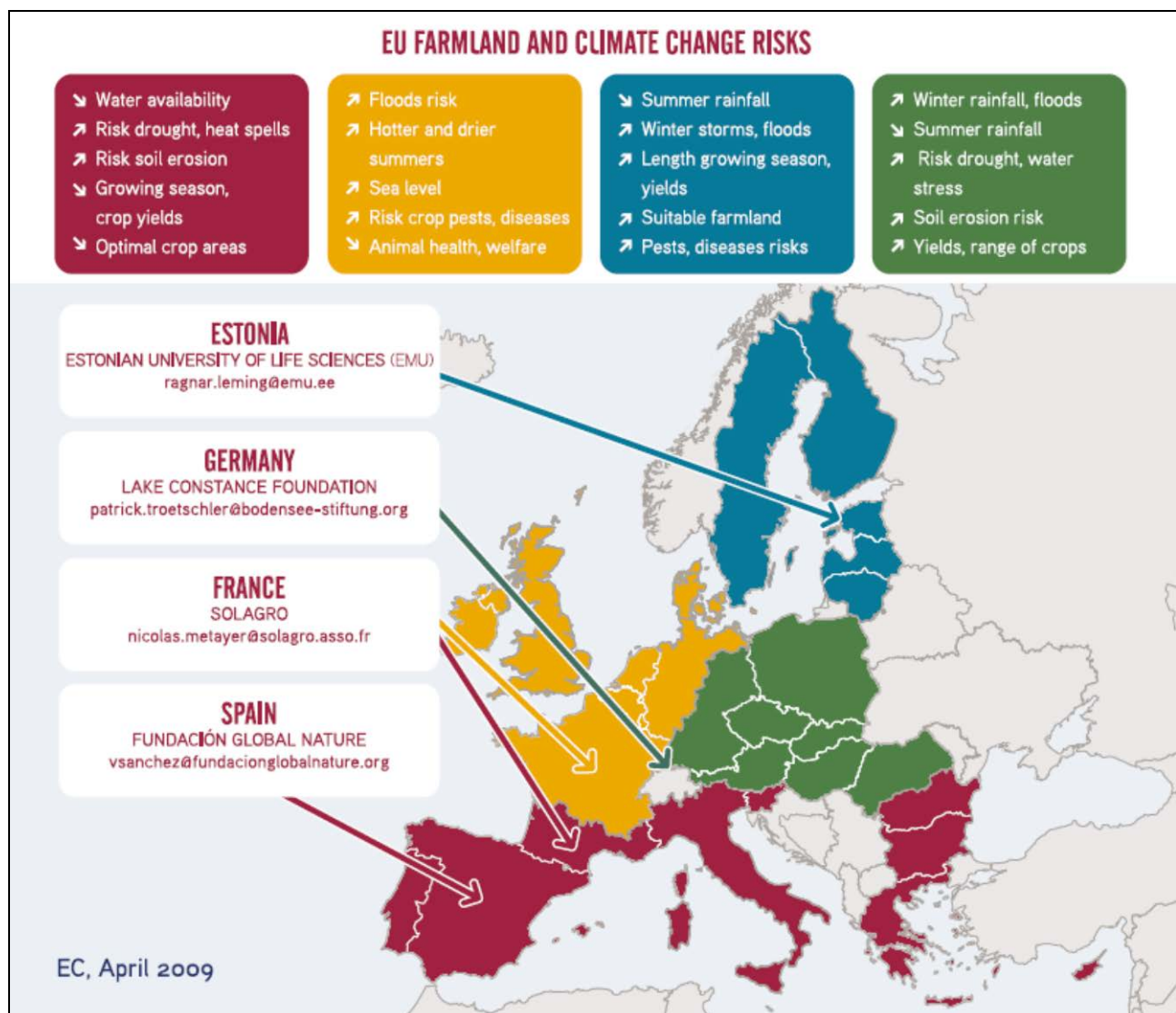


Figure 1

1.2. PROJECT TIMEFRAME

01.09.2016 – 31.12.2019 (40 months)

1.3. DESCRIPTION

European farmers will 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 practices and have to be sustainable. However, these measures can also entail increasing efficiency, reducing costs, new market opportunities and better preparation for future legislation.

The overall objective of the AgriAdapt 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 and sustainable adaptation measures which also have positive crosscutting environmental benefits. To this end, different measures will be tested in pilot farms across the four Climate Risk Regions and the conclusions obtained will be used to elaborate General proposals for key farming systems.

The specific objectives of the project are:

- **To improve the knowledge base for the development, assessment and monitoring of the climate change vulnerability** at farm-level by developing and testing a common method for the four EU Climate Risk Regions.
- **To test sustainable measures and management approaches for climate change adaptation** by identifying and implementing them on 120 pilot farms.
- **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 organizations and agricultural assurance companies.
- **To raise awareness and know-how of current farmers and future farmers** for sustainable adaptation options at farm level by developing, creating and disseminating training packages for agriculture trainers, schools and capacity building centers and stakeholders.
- **To contribute to the development and implementation of EU, national and regional policies on climate change** adaptation by transferring best-practice and know-how to political, agricultural and food business stakeholders and by mainstreaming across policy areas.

1.4. ACTIONS AND MEANS INVOLVED

Preliminary phase (September 2016 – May 2017)

- Creation of 4 baseline reports (one per each EU Climate Risk Region) covering the European issue of climate change, with contribution from national/regional experts and creation of 12 catalogues of measures. Each project partner will create three catalogues (one for each farming system) with possible sustainable adaptation measures for each farming system (arable land, livestock, permanent crops) and each EU Climate Risk Region.
- Selection of 120 pilot farms where the adaptation measures will be tested.
- 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.
- Creation of Steering Committee board in each country of experts in adaptation and the farming sector.

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

- All project partners will analyse their pilot farms and will develop farm-tailored sustainable adaptation measures for each of the 120 farms. These adaptation measures will be implemented, their effectiveness will be tested and the measures will be updated annually according to the obtained results.
- The results will be summarised according to their transferability in order to create General proposals for three key farming system (arable land, livestock and permanent crops)

Dissemination and communication phase of project results – transferability (July 2017 – December 2019)

The project results will be presented and discussed with the main target groups and stakeholders, especially policy-makers at an international, EU, national and regional level. Other key stakeholders include research centers, universities, companies in the agri-food industry, farming associations, standards, and insurance companies. The aim is to incorporate these sustainable adaptation measures into policies, labels and standards, insurance guidelines, etc.

- Demonstration of the feasibility and transferability of the common tool and the sustainable adaptation measures to political, agricultural and food industry stakeholders at a national level, EU level and beyond. Foreseen actions include: 8 expert meetings, 28 demonstration workshops, 8 expert workshops, 2 webinars, 8 expert meetings for EC and FAO, 4 transnational conferences in Estonia, France, Germany and Spain
- 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
- 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
- Webpage: www.agriadapt.eu

2. “Farming Adaptation Training Pack”

2.1. DESCRIPTION

In order to scale-up the adaptation measures AgriAdapt will address the stakeholders that are ultimately responsible for implementing the adaptation measures at farm level, the farming community, through capacity building structures for current farmers and for future farmers. Simple, realistic and demonstrative information on adaptation to climate change to the farming sector will be elaborated and integrated into a “Farming Adaptation Training Pack”.

This Pack will be very useful for trainers.

AgriAdapt will incorporate this “Farming Adaptation Training Pack” into the existing channels and platforms that are commonly used by current and future farmers. All over the EU there are similar capacity building structures for farmers, which have been divided in this project for practical reasons into capacity building structures for current farmers and for future farmers. The capacity building for current farmers is closer to the advisory concept/structures, while the capacity building for new farmers falls on the educational training side. Meetings will be scheduled with Policy makers at National and Regional level, and with advisory concept/structures and with educational training entities in order to improve the “Farming Adaptation Training Pack” and talks/training sessions will be scheduled for the capacity building structures.

“The Farming Adaptation Training Pack” will be tailored to the trainers format and contents. The aim is that current and future farmers will not receive information only about the environmental problem, but an overall vision of the relationship between adaptation to climate change and farm competitiveness, environmental synergies, regulations compliance, market opportunities, etc.

2.2. IS THIS USEFUL FOR YOU?

“The Farming Adaptation Training Pack” is addressed to trainers; it will include Powerpoint presentations, supporting word documents for teachers, communication materials of the LIFE project, and the main reference documents regarding Sustainable Farming Adaptation to Climate Change in Europe. Nevertheless if you are not a trainer and want to know about this Issue, you can use these materials on your own.

2.3. FORMAT

“The Farming Adaptation Training Pack” will be in a digital format, and it will be an alive document, that will be improved as the project is developed.

To ensure a wide and non-limited use of this EU public funded information, the “Farming Adaptation Training Pack” will have a Creative Commons (CC) Attribution (BY) and Share-alike (SA) License, including the following conditions:

- Attribution (BY) Licensees may copy, distribute, display and perform the work and make derivative works and remixes based on it, including commercial uses, only if they give the author or licensor the credits (attribution) in the manner specified by these.
- Share-alike (SA) Licensees may distribute derivative works only under a license identical (“not more restrictive”) to the license that governs the original work. Because without share-alike, derivative works might be sublicensed with compatible but more restrictive license clauses, e.g. CC BY to CC BY-NC.

This entails a free distribution, use, reproduction and re-printing of the contents with the only condition of respecting the mention to the authors and the LIFE logo. This will ease the reproduction of such materials even if there are no copies left and if the project is over.

Expected documents that will include “The Farming Adaptation Training Pack”

The Training Pack will include at least 3 power point presentations (short, medium and long presentations) and a support word document for every proposed content (see section 2.4). At the end of every presentation interactive questions will be added in order to promote the debate.

Even more it will include 5 practical case studies of pilot farms, and reference documents, including a list of relevant links.

Adaptation fact-sheets and short video clips created in Action E1 and E3 for dissemination purposes will be also included.

2.4. HOW TO USE THE TRAINING PACK

The Training Pack will have a Creative Common Licence-Attribution-Share Alike (CC-BY-SA), this means that it enables free distribution, **with the only condition of respecting the mention to the authors and the LIFE logo**. Then, every user will have the right to share, use, and build upon this work.

If you need further information, please contact your closest entity at the different emails at the different countries (see figure1) and we will be pleased to provide you more information.

CONTENTS

The “Farming Adaptation Training Pack” will have at least the following contents:

A. The project

B. European Agrarian Sector Vulnerability to Climate Change

1 Context

1.1 DEFINITIONS

1.2 WORLD CONTEXT

1.3 EUROPEAN CONTEXT

1.3.1 Climate zone

1.3.2 Observed Climate Change

1.3.3 Projected Climate Change and Climate Extreme

1.3.4 Observed and future impacts for agriculture

1.3.5 Generalities: climate characteristic, plant development and growth

1.3.5.1 ARABLE CROPS

1.3.5.2 PERMANENT CROPS

1.3.5.3 LIVESTOCK PRODUCTION

1.3.6 Water resources and agriculture

1.4 SYNTHESIS FOR EUROPE

1.4.1 Key observed and projected impacts

1.4.2 Farming systems in Europe by climate region

1.5 BIBLIOGRAPHY

2 Atlantic Climate Zone

2.1 OVERVIEW

2.2 FRENCH FOCUS

2.2.1 Adaptation strategy

2.2.2 Climate Tool and Service

2.2.3 Climate scenario for France in the 21st century

2.2.4 Projects dealing with adaptation in agriculture

2.2.5 Agro-climatic grids

2.2.5.1 ARABLE CROPS

2.2.5.2 PERMANENT CROPS

2.2.5.3 LIVESTOCK

2.2.6 French bibliography

3 Continental Climate Zone

3.1 OVERVIEW

3.2 GERMAN FOCUS

3.2.1 Climate trends & National Adaptation Strategy

3.2.2 Climate Tool or services

3.2.3 Projects dealing with adaptation in agriculture

3.2.4 Agro-climatic grids

3.2.4.1 ARABLE CROPS

3.2.4.2 PERMANENT CROPS

3.2.4.3 LIVESTOCK

3.2.5 German bibliography

4 Southern Climate Zone

4.1 OVERVIEW

4.2 SPANISH FOCUS

4.2.1 Climate trends & National Adaptation Strategy

4.2.2 Climate Tool or services

4.2.3 Projects dealing with adaptation in agriculture

4.2.4 Agro-climatic grids

4.2.4.1 ARABLE CROPS

4.2.4.2 PERMANENT CROPS

4.2.4.3 LIVESTOCK

4.2.5 Spanish bibliography

5 Northern Climate Zone

5.1 OVERVIEW

5.2 ESTONIAN FOCUS

5.2.1 Climate trends & National Adaptation Strategy

5.2.2 Climate Tool or services

5.2.3 Projects dealing with adaptation in agriculture

5.2.4 Agro-climatic grids

5.2.4.1 ARABLE CROPS

5.2.4.2 PERMANENT CROPS

5.2.4.3 LIVESTOCK

5.2.5 Estonian bibliography

C. Project Methodology

1. METHODOLOGY

2. THE COMMON DECISION SUPPORTING TOOL

3. IDENTITY CARDS FOR DIFFERENT CROPS

D. Sustainable Adaptation Measures

1. CATALOGUE OF ADAPTATION TO CLIMATE CHANGE MEASURES FOR THE NORTHERN REGION

2. CATALOGUE OF ADAPTATION TO CLIMATE CHANGE MEASURES FOR THE ATLANTIC REGION
3. CATALOGUE OF ADAPTATION TO CLIMATE CHANGE MEASURES FOR THE SOUTHERN REGION
4. CATALOGUE OF ADAPTATION TO CLIMATE CHANGE MEASURES FOR THE CONTINENTAL REGION

- E. The relationship between: adaptation to climate change and farm competitiveness, environmental synergies, regulations compliance & market opportunities. Communication tools**
- F. Study cases on pilot farms (Short videos and documents)**
- G. Interesting documents (IPCC, FAO, etc.). Including a list of relevant links**

