ADA
ADaptation in Agriculture

Layman's report

I Partner. Insieme per aumentare la resilienza del settore agricolo | **www.lifeada.eu**

Unipol arpae emilia-romagna CIA Agricoltori Italiani crea legacoop agroalimentare associazione distrettuale Nord Italia LEGAMBIENTE Leitha RegioneEmilia-Romagna

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1 The ADA project

1.1 The challenge

Italy is one Europe's most exposed areas in terms of climate risk, and is one of the EU countries that suffers the greatest economic losses due to extreme weather conditions.

Climate change has a direct impact on productivity, jeopardising the profitability of farmers (especially those with small to medium-sized enterprises), and their ability to survive, and also has negative effects on the quality of production.

1.2 Our commitment

1. To convey knowledge about climate scenarios, and to raise awareness of risk management and adaptation measures to improve the agri-food sector's resilience to present and future climate risks.
2. To develop appropriate tools to support the decision-making process for the establishment of efficient adaptation plans at the farm and supply chain level.
3. To establish a coherent policy strategy at the regional level to support farmers in the adaptation planning process.
4. To promote an innovative approach on the part of insurers to improve the risk reduction capacity, in order to maintain farmers' insurability over the long term, despite increasing catastrophic and systemic risks.

1.3 Partners

RegioneEmilia-Romagna

arpae emilia-romagna

legacoop agroalimentare | associazione distrettuale Nord Italia

CIA AGRICOLTORI ITALIANI

LEGAMBIENTE

crea Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria

Leitha

Unipol

ADA ADaptation in Agriculture

1.4 Target

Farmers and producer organisations (cooperatives and consortia)

3 Filiere coinvolte

Lattiero - Casearia

Vitivinicola

Ortofrutticola

2 The project in figures

2.1 Introduction

52 months of work, for a total planned budget of € 1,975,000, of which € 1,084,004 funded by the European Community.

2.1.1 Dissemination

1. Subjects reached through the various initiatives:	600.000
2. Users that have utilised the ADA Tool:	1.612
3. People who viewed the project's video material:	119.353
4. Website visitors:	7.769
5. Events where the project was presented:	81 national, 35 international

2.1.2 Replicability

1. final guideline for the insurance sector
2. final guideline for the regions
3. final guideline for the supply chains
4. white paper

3 The ADA Tool

3.1 Introduction

In order to facilitate the elaboration and adoption of the most appropriate adaptation plans, a practical **Web App** was developed, which can be used directly from the project website via a smartphone or PC, with no need to download anything to your device.

It's simple and intuitive to use: just geo-localise your company, and select the supply chain in which you operate, and the **ADA tool** will generate your risk analysis (considering Wind, Hail, Drought, Frost, Cumulative Precipitation, and Minimum and Maximum Temperatures).

For each hazard, the system proposes adaptation measures, drawn up with input from expert agronomists, meteorologists, climatologists, economists, and more. Each proposed measure is accompanied a number of explanations in order to allow you to assess whether they are applicable to your farm. In particular, these include: the relevant agri-food supply chains, climate risk, scope of action, extent of potential risk mitigation, technical difficulty, ideal farm size, effectiveness, time horizon, public support, and cost/benefit ratio.

The adoption of adaptation measures almost always entails a cost. This cost may consist of the initial investment and/or the operating expenses for the implemented action. In most cases, the expenses to be incurred translate into annual costs in terms of depreciation for the investment, technical means (water, energy, etc.), maintenance, labour, etc. Therefore, the decision to implement adaptation measures requires an assessment of the costs and benefits of their adoption.

Another strength of the ADA Tool is that the farmer can indicate whether he/she contributes to one or more producer organisations, such as a cooperative or consortium. In addition to making its own adaptation plan, thus preserving the supply chain in which it operates, the organisation can also view the reports of all its members, with their risk analyses. In particular, the organisation is able to know how many of its associates are exposed to a given hazard in aggregate form, and can also view the risks to which each individual producer is subject, and the actions they have included in their adaptation plans.

Once registered, the system will keep a record of the adaptation plan created based on the vulnerabilities of their farm, which can be amended at any time.

3.1.1 Six main hazards

High and low temperatures; Cumulative rainfall; Wind; Hail; Late frost; Drought.

The supply chain can improve its resilience by choosing from among 164 proposed adaptation actions: 108 field activities and 56 actions for farm structures/infrastructures.

ADA Tool: i filtri della library

Filiera	Rischio climatico	Ambito di azione
Lattiero Casearia	Siccità	Suolo
Vitivinicola	Vento	Acqua
Ortofrutticola	Grandine	Gestione agronomica
	Danni da temperature estreme massime	Varietà e sistemi colturali
	Danni da temperature estreme minime	Benessere animale
	Eccesso idrico	Trasformazione
	Eventi alluvionali	Merci
	Precipitazioni intense	Macchinari
	Perdita di vocazionalità territoriale	Fabbricato
	Cuneo salino	Infrastrutture
	Erosione	Logistica
	Danni fitosanitari	

3.2 Pilot Area (the Emilia-Romagna Region)

The Life ADA project's trial was carried out in the Emilia-Romagna region.

53 farms and 6 producer organisations were involved; 53 adaptation plans (containing an average of 36 actions) and 6 supply chain adaptation plans (with an average of 32 actions selected) were drafted.

An assessment of the project's impact was carried out for each individual farm by conducting an ex-ante and ex-post analysis of the climate change adaptation plan.

This process helped test the functionality and content of the ADA Tool.

A highly innovative approach by the Emilia-Romagna Region: within the context of the procedures for the granting of investment subsidies, in the case of equal scores, priority is given to those who have demonstrated that they have an adaptation plan.

3.3 "Rewarding" of companies that tackle the problem of adaptation in a structured manner

Acknowledging the importance of developing climate change adaptation plans in order to effectively manage the relative risks, the Emilia-Romagna Region has adopted a **highly innovative approach: within the context of the procedures for the granting of investment subsidies, in the case of equal scores, priority is given to those who have demonstrated that they have an adaptation plan.**

3.4 Dissemination of knowledge

A training course, which can be fully accessed from the "Training" page of the project's website, has been set up in order to disseminate knowledge about the risks associated with climate change and skills needed to facilitate adaptation.

a. **7 technical webinars** on adaptation strategies and measures
b. **3 online workshops** for the exchange of good practices and knowledge sharing among participating experts
c. **3 testimonials** from local companies of excellence
d. **242 participants** in total, including farmers, agronomists, and consultants/technicians
e. **25 keynote** experts
f. **"AgriFuturo" podcast** - https://www.lifeada.eu/it/formazione/

3.4.1 Per conoscere

Argomento	Risorsa
Cos'è il cambiamento climatico	Podcast
Clima passato, presente e futuro	Podcast
Clima e impatto sull'agricoltura	Podcast
Biodiversità, fitopatie e specie aliene	Podcast
Clima: conoscere lo scenario per diminuire i rischi	Podcast
Clima e variazioni climatiche in Emilia Romagna	Webinar
Cambiamento climatico: presente e proiezioni future	Webinar
Impatti dei cambiamenti climatici in agricoltura	Webinar
Impatti e adattamento in agricoltura Acqua	Webinar
Impatti del cambiamento climatico sull'agricoltura in Europa	Pubblicazione
Impatti del cambiamento climatico sulle tre filiere nelle aree di Life ADA	Pubblicazione
Impatti del cambiamento climatico in Emilia Romagna: analisi sul fabbisogno idrico nel settore agricolo	Pubblicazione

3.4.2 Per adattarsi tutte le filiere

Argomento	Risorsa
Siccità	Podcast
Eventi meteorologici estremi	Podcast
Estremi di temperatura	Podcast
Come funziona ADA Tool	Podcast
Le buone pratiche di adattamento in filiera	Podcast
Tecnologie digitali in agricoltura	Webinar
Dati satellitari in agricoltura	Webinar
Cambiamento climatico: azioni di adattamento e analisi dei Big Data	Webinar
I cambiamenti climatici in agricoltura, una valutazione costi-benefici delle misure di adattamento	Pubblicazione
RRn Magazine 18: il futuro in una goccia	Articolo

3.4.3 Per adattarsi Filiera Lattiero - Casearia

Argomento	Risorsa
Adattamento dei sistemi di allevamento della bovina da latte in risposta al cambiamento del clima	Webinar
Mitigazione nella filiera del Parmigiano-Reggiano	Webinar
Effetti del cambiamento climatico sulla filiera lattiero casearia e azioni di adattamento	Webinar
Filiera Parmigiano-Reggiano	Webinar

3.4.4 Per adattarsi Filiera Ortofrutticola

Argomento	Risorsa
Interventi di adattamento per le colture	Webinar
Sistemi e tecniche di fertilizzazione del terreno	Webinar
Filiera ortofrutticola	Webinar

3.4.4 Per adattarsi Filiera Vitivinicola

Argomento	Risorsa
Tecniche di gestione della chioma in viticoltura	Webinar
Progettazione del vigneto	Webinar
Viticoltura di buon senso per affrontare la variabilità del clima	Webinar
Filiera vitivinicola	Webinar

3.4.1 Per resistere

Argomento	Risorsa
Policy internazionali	Podcast
Strumenti a gestione nazionale	Podcast
Strumenti a gestione regionale	Podcast
Agricoltura digitale	Podcast
Testimonianza del settore	Podcast
Gestione del rischio e prospettive future	Webinar
Gestione del rischio in agricoltura, protezione del reddito e strumenti assicurativi	Webinar
Gestione del rischio in Emilia-Romagna	Webinar
Gestione del rischio nel settore assicurativo	Webinar
La nuova PAC	Webinar

4 The ADA community

In order to improve farmers' capacity to implement efficient adaptation strategies to increase their resilience to climate change, a community was established.

In order to involve as many actors as possible, with whom all the tools created by the project could be shared, a chain effect was created: workshops during institutional meetings of Legacoop Agroalimentare CIA Agricoltori Italiani, meetings with technicians from producer organisations, and, finally, engagement of farmers.

The community was created by disseminating the project throughout the country

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