LIFE CLINOMICS
LIFE15 CCA/ES/000102
"This project has been funded with support from the European Commission"

Given the seriousness of the predicted **inevitable impacts** of climate change, each geographical region must also take measures that will allow it to **adapt to the changes to come** (resilience).

Therefore we must...

Minimize **vulnerability** to **risks and negative impacts**

Identify **positive impacts** and transform them into **opportunities for all sectors and regions**

Therefore, we must promote adaptive measures for all economic sectors in order to guarantee their **sustainable activity in the new climate scenario.**

The European LIFE CLINOMICS project **has selected three regional areas of Catalonia,** each with ecosystems representative of the country as a whole in order to analyse and evaluate the vulnerability and impacts each region faces from climate change.

The information should allow:

- The adaption/modification of **local socio-economic policies and activities**.
- Catalonia to serve as a **replicable model** in other Mediterranean areas of southern Europe.

Access to the technical report: **http://lifeclinomics.eu/en/informes**

CLIMATE VULNERABILITY IN THE L'ALT PENEDÈS

THE IMPACT OF CLIMATE CHANGE ON THE AGROFORESTAL AND TOURISM SECTORS

THE LIFE CLINOMICS PROJECT OF CATALONIA AND THE ADAPTATION OF THE REGION TO CLIMATE CHANGE

Adapting to climate change is a **collective challenge**.

It calls for a **shared effort** on the part of all social and economic agents, organisations, groups, and public institutions, in all sectors and at all levels.

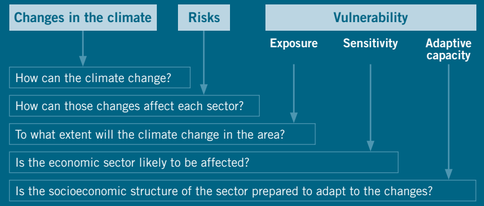
It is no longer enough to avoid further emissions; we must also work to reduce or mitigate the emissions that we produce now.




HOW HAS THE VULNERABILITY OF EACH SECTOR BEEN EVALUATED?

The vulnerability study has focused on the agricultural, livestock, forestry and tourism sectors. The identification of the principal risks that affect each sector has been carried out through the collection of technical information and interlocution with the various social and economic groups within the region.

A set of indicators has also been established for risks that are considered to be the most important for each sector, municipality and the region as a whole. The vulnerability associated with a particular risk has been calculated based on the following variables: exposure, sensitivity and adaptive capacity.



RISKS	SECTOR	VULNERABILITY
Decrease in the flow rate of river courses	Agriculture	6
Changes in crop types	Agriculture	5
Loss of landscape quality	Tourism	5
Increased risk of fire	Agriculture / Forestry	4-5
Changes in the productivity of vineyards due to drought	Agriculture	4
Decrease in the quality of groundwater	Agriculture	4
Reduction in the land area available for grapevines and pasture	Agriculture / Livestock	4
Loss of biodiversity	Agriculture / Forestry	3-4
Increased demand for irrigation	Agriculture / Livestock	3
Decrease in the availability of water for forest management	Forestry	2
Variation in tourist demand	Tourism	1

0 = low vulnerability *10 = high vulnerability*

WHAT IS THE DEGREE OF VULNERABILITY OF EACH SECTOR?

AGRICULTURAL SECTOR

The global vulnerability of the sector is medium. Although vulnerability is high in terms of water quality and the decrease in the number of vineyards, the sector's adaptive capacity is good especially with regard to the results obtained in indicators such as changes in the productivity of vines. New agronomic and oenological techniques, the reintroduction of old varieties and the promotion of varieties adapted to warm climates are measures that can mitigate the negative effects on the production and quality of wine due to drought.

LIVESTOCK SECTOR

The global vulnerability of the sector is low due to the fact that there is so little livestock activity in the region, especially when compared to agriculture. The sectors adaptive capacity, as well as the breeding of the black rooster, which is considered to be a quality livestock product, could also accelerate the recovery of farming practices linked to forest management.

FORESTRY SECTOR

The forestry sector is considered to be the most vulnerable, particularly with regard to the risk of fire and the reduced flow of water courses. It will be necessary to put in place a management plan with the long-term objective of facilitating the regeneration of the forests while reducing the sector's vulnerability to fire and periods of drought. In addition, the low economic profitability of the forestry industry is a key factor. The cleaning of the forest undergrowth for use in the biomass industry, combined with other forest products and dried vine branches could also contribute to the achievement of these objectives.

TOURISM SECTOR

The global vulnerability of the sector is low. The change of seasonality for tourist visits, its close proximity to the cities of Barcelona and Tarragona together with tourism products related to the sustainable development of the region and the potential for enotourism routes, combine to give the sector a good adaptive capacity.