



**LIFE 11 ENV/GR/942 – Olive Clima**

**“Introduction of new oLIVE crop management practices focused on CLIMAtE change mitigation and adaptation”**

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## LIFE11 ENV/GR/942– oLIVE CLIMA



- **Lead Partner:** ANATOLIKI
- **Project Partners:** INSTITUTE FOR OLIVE TREE AND SUBTROPICAL PLANTS OF CHANIA, SOIL SCIENCE INSTITUTE OF ATHENS, LAND RECLAMATION INSTITUTE OF THESSALONIKI, University of Basilicata, Italy, RodaxAgro, AGROTYPOS, O.P. NILEAS, E.A.S. PEZA, E.A.S. MIRABELLO
- **Project budget:** 3.649.373 € , Life + contribution 1.822.436 €
- **Start date:** 10 / 2012
- **End date:** 9 / 2017



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- **The problem:** The global average temperature has increased due to human activity of the last 50 years, as a result of increasing greenhouse gases (GHG) emissions produced by human activity, affecting the earth's climate.
- **Climate Change and Agriculture:** Agriculture is considered responsible for 14% of global GHG emissions in CO<sub>2</sub> equivalents. The land use change for its development (deforestation and destruction of grazing), is equivalent to 17 % of global emissions. Agriculture plays a very significant role on the climate change phenomenon. Affected by the climate change, but also affect-reverse the climate change.
- **The challenge:** Agriculture is expected to provide sufficient quantities of products using efficient processes, while at the same time reducing GHG emissions from food production and trading. Development, dissemination and adoption of innovative agricultural practices and technologies will largely shape the way farmers can contribute to mitigate climate change and adapt their crops accordingly.

**The oLIVECLIMA project is an effort to guide the agricultural sector in order to face these challenges by converting olive cultivation to a climate change management tool.**



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The **main aim** of the project is to introduce new cultivation practices for tree crops starting with a Mediterranean olive-forest- in order to find cost-effective means for mitigating and adapting to climate change. The project is located in 3 olive-producing areas in Greece, investigating the potential **to increase carbon sequestration and long term storage in soil**, and **to reduce GHG emissions** during production as well as from soil.

In summary, in this project, a **mitigation** approach (**enhanced CO<sub>2</sub> uptake / reduced CO<sub>2</sub> emissions**) and an adaptation one (**enhanced soil quality, water retention, fertility**) are tackled at the same time.

Multiple issues by modifying practices by training farmers (motivated by EPD?, PEF?).

***Less C in the atmosphere more C in soil, by:  
Less inputs, but “wiser” practices, such as of organic agriculture***

- Enhance C sequestration by adapted pruning
- Cover crops – green manuring to contribute to C sequestration and N
- Use of composting (+waste water?) to replace (N) fertilizers (lower C footprint).
- Wood shredding instead of wood burning
- Zero tillage (less erosion)