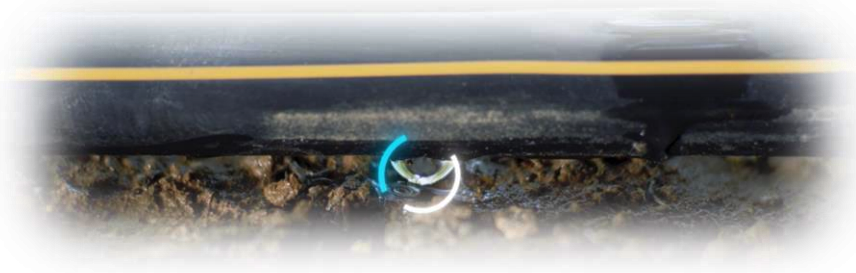


## **Good Agricultural Practices as a Result of Applied Research to Ensure Sustainable Agriculture and Adaptation to Climate Change Through Efficient Water Use**

**Ορθές γεωργικές πρακτικές ως αποτέλεσμα εφαρμοσμένης έρευνας για τη διασφάλιση βιώσιμης γεωργίας και προσαρμογής στην κλιματική αλλαγή μέσω της αποτελεσματικής χρήσης του νερού**



**Dr. Nektarios N. Kourgialas**

**Institute of Olive Tree, Subtropical Crops & Viticulture (IOSV) – Chania, Greece  
DG AGRICULTURAL RESEARCH  
HELLENIC AGRICULTURAL ORGANIZATION (ELGO DIMITRA)**

# Expertise of Hellenic Agricultural Organization (ELGO DIMITRA)

## Institute for Olive Tree, Subtropical Crops and Viticulture

Hellenic Agricultural Organisation (ELGO DIMITRA) is the national Centre for research, training and certification in agriculture and is supervised by the Ministry of Rural Development and Food

*11 Research Institutes*

The Institute of Olive Tree, Subtropical Crops and Viticulture (IOSV) has specialized laboratories covering all chains of tree crop production and growing systems (irrigation, fertilization, pest management, etc)

IOSV has participated in several EU, national or privately-funded projects, which include either research work or demonstration activities at pilot scale, in close cooperation with local farmer's groups, Municipalities and Regions all over Greece



## LIFE Projects

**LIFE20 NAT/EN/001487. Live olive groves+.** Increasing the impact of Olivares Vivos in the European Union. <https://www.olivaresvivos.com/>

The **LIFE 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. <https://oliveclima.eu/>

The **LIFE AgroClimaWater** project's main objective is to promote water efficiency and support the shift towards climate resilient agriculture in Mediterranean countries through the development of water management adaptation strategies in Farmers' Organizations.

<http://www.lifeagroclimawater.eu/>



## LIFE oLIVECLIMA

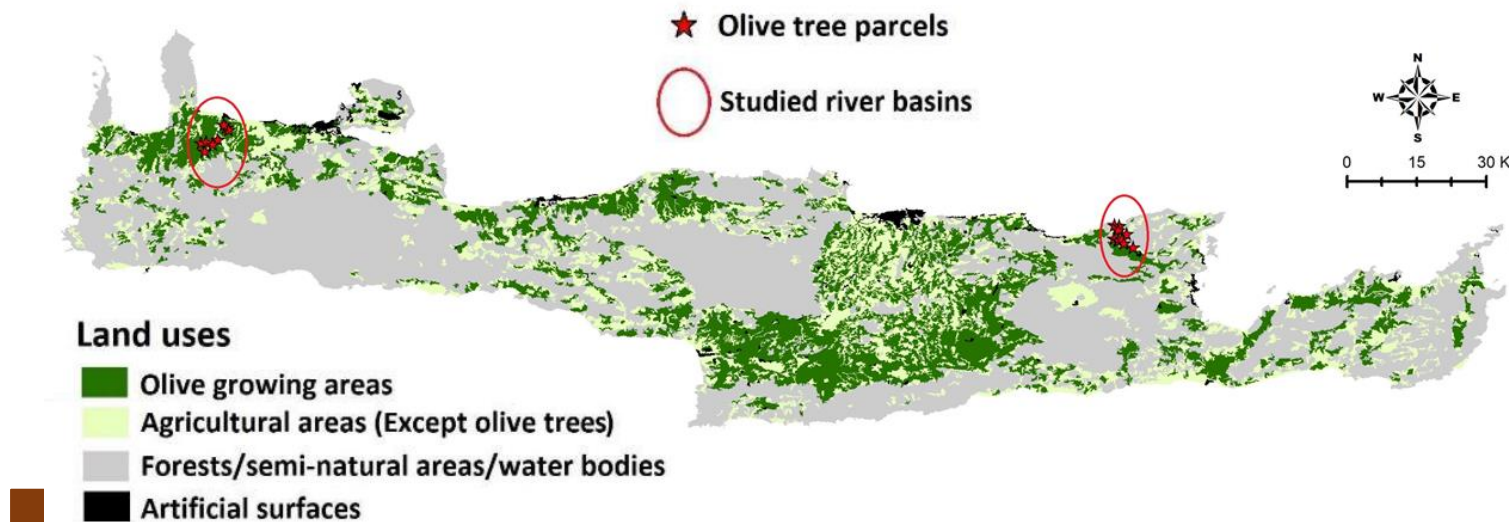
Crop management practices focused on climate change mitigation and adaptation

## LIFE AgroClimaWater

Proper agricultural practices for water saving at farm and river basin scale

7/18 irrigated και 11/18 rainfed

3 year of implementation practices



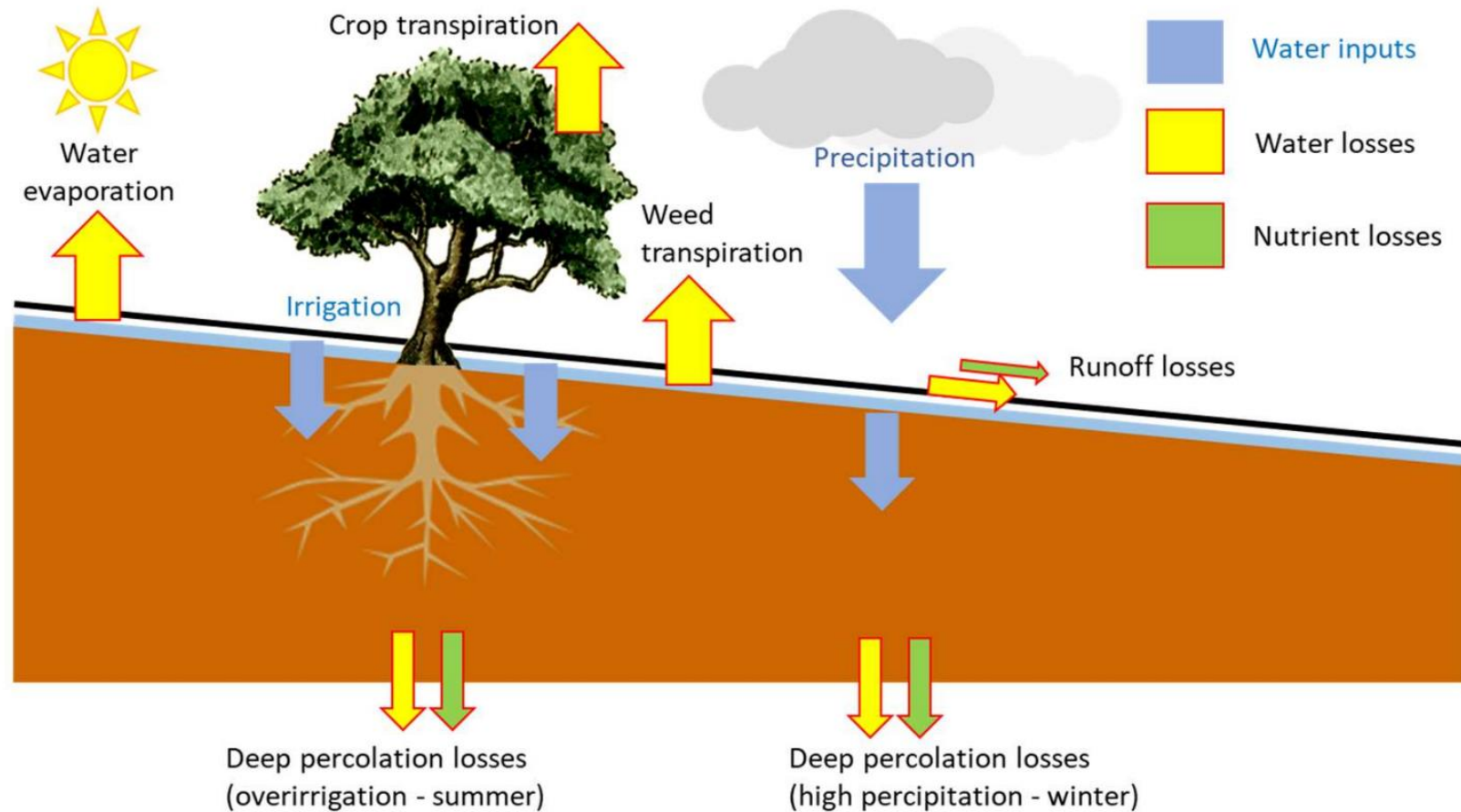
*Plant protection from diseases and insects are not included as practices for this project and they were applied, in the same way, by farmers both in demo and control plots*

Demo - Demonstration part  
Good Agricultural Practices  
by the scientific team

Control - Traditional  
management by the  
farmer

The **LIFE AgroClimaWater** project aims to define and implement farming practices that can increase water use efficiency in tree crops / create farms that can respond to extreme climate conditions

## "LIFE Agroclimawater" - Efficient Water Use & Climate Change





## Goal A: Reducing water losses by evaporation

Soil cover:

- Pruning residues
- Weed residues



## Goal B: Reducing water losses by transpiration

- A. Spring weed management
- B. Winter pruning
- C. Summer pruning
- D. Application of kaolin



## Goal C: Reducing water losses by deep infiltration

- A. Increase soil organic matter
- B. Fertigation



## Goal D: Rational use of irrigation water & fertilizers

- A. Irrigation based on meteorological and soil moisture data
- B. Application of deficit irrigation
- C. Recording of irrigation water
- D. Annual maintenance the irrigation network
- E. Soil and leaf analyses – FERTILIZES



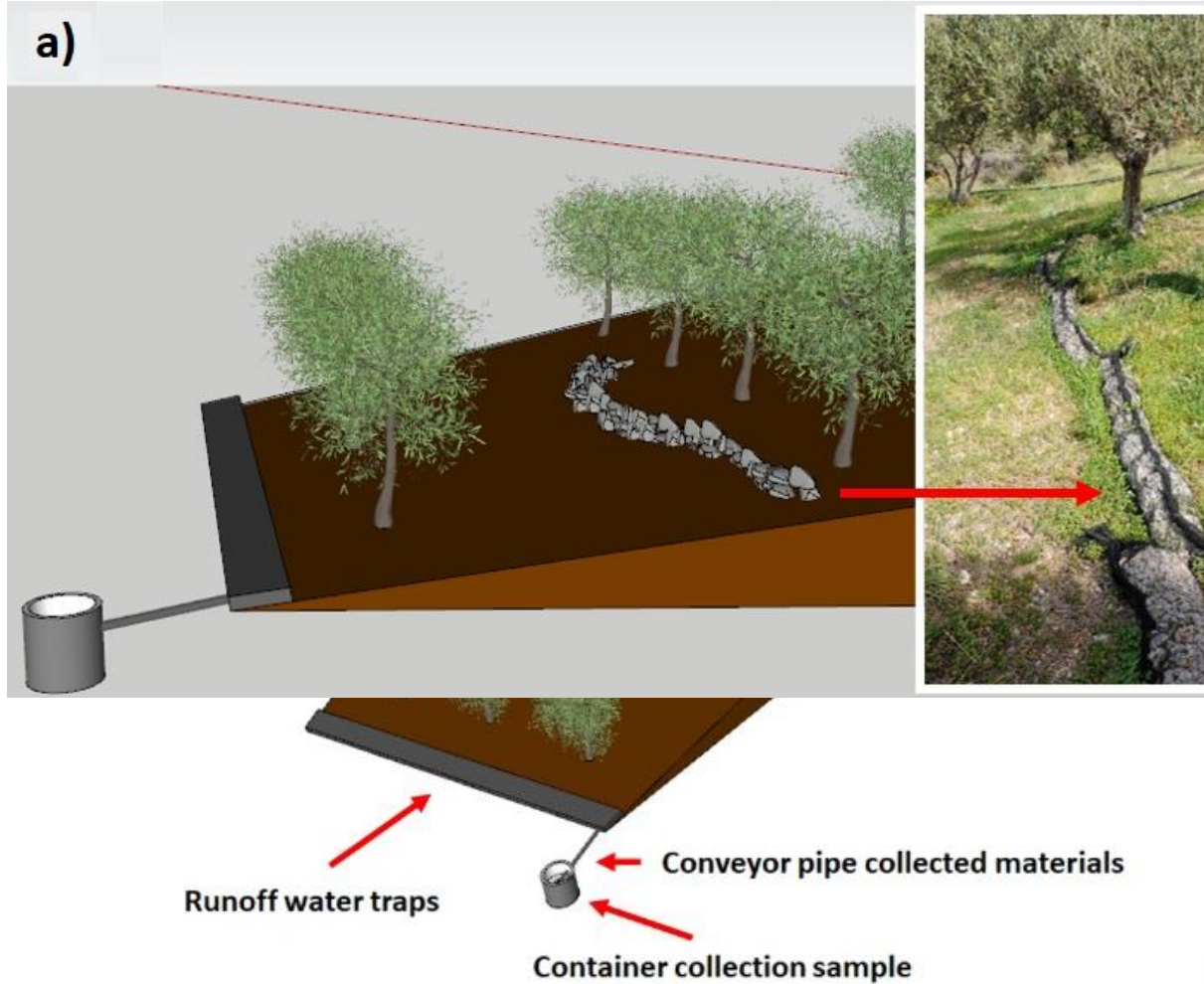
## Goal E: Reducing water losses from Runoff

- A. Maintain weeds during winter
- B. Legumes sowing
- C. No soil tillage
- D. Introduction of barriers





**Demonstration part (0.2 ha)**



**Control part (0.2 ha)**  
Traditional management by the farmer

### Comparing Yield (Kg/ha) between Control and Pilot Olive Farms

2017		2018		2019	
Yield		Yield		Yield	
<i>Control</i>	6240	<i>Control</i>	5030	<i>Control</i>	2170
<i>Pilot</i>	6390	<i>Pilot</i>	7770	<i>Pilot</i>	2950
Increase 2%		Increase 54%		Increase 36%	

# Thank you

Information:

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