

# GLANCE - The Agricultural Land Abandonment and Climate change impacts on the water, energy and vegetation carbon cycles in the Mediterranean region

Since the 1990s, approximately **120 million hectares** of land have been abandoned in Europe, predominantly due to socio-economic factors such as rural migration towards regions offering new economic prospects.

This trend has been particularly significant in the **Mediterranean region**, leading to a **natural reforestation** that, along with **climate change**, has transformed the region into a notable **hotspot for shifts in water and carbon cycles**.



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# GLANCE MAIN GOAL AND RESEARCH QUESTIONS

**The main goal of (GLANCE) is to leverage ESA CCI ECVs for the quantification of the effects of climate change and land abandonment on forest carbon dynamics, water and energy cycles in the Mediterranean Region**

01

How much, where and what types of Mediterranean forests have expanded in the past couple of decades?

02

How have land abandonment and climate change impacted water, energy, and carbon cycles, especially during major drought events?

03

Which is the sensitivity of a change in runoff, groundwater recharge, evaporation, primary productivity, water use efficiency to changes in forest cover under land abandonment and climate change?

04

Which improvements do CCI ECVs require to better address these questions?

