





Clepsydra

Agri-Food Systems



Challenge

Groundwater

Nitrate Pollution Monitoring

Unsaturated Zone

Agriculture

Public awareness

Main goal

The CLEPSYDRA project aims to protect aquifers through a smart system for monitoring and interpreting hydrogeological data.

The tools created by CLEPSYDRA will help integrate environmental protection into socioeconomic activities, supporting more sustainable water and land management practices.

Project outputs

- **Decision Support System** Al tool showing aquifer conditions.
- **Monitoring Protocol** Guidelines for groundwater and unsaturated zone monitoring.
- **Training Materials** Resources for stakeholders on groundwater management.
- Outreach tools Digital content on aquifers and human impact.

Approach and regional scope

Clepsydra combines monitoring assessment, advanced tools for data interpretation, piloting in real conditions across 4 regions, and strong social awareness activities. To enable more informed, sustainable water management decisions, reducing agricultural pollution and protecting aquifers in vulnerable environments.

PILOT SITES



Main achievements

- Comprehensive assessment of groundwater monitoring practices across MED regions.
- Development of an Al-powered Decision Support System for real-time aquifer status.
- Implementation of pilots in 3 countries demonstrating improved groundwater management.
- Production of training resources and outreach materials fostering stakeholder capacity and public awareness.
- Strengthened cooperation among institutions for sustainable aquifer protection.

Conclusion

The CLEPSYDRA project paves the way for smarter groundwater management in Mediterranean agriculture, combining innovation, monitoring, and awareness to protect vital water resources.

Consortium















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