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Investigating the water supply potential of traditional rainwater harvesting techniques used – A case study for the Municipality of Western Mani

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Water availability is a critical issue for growing local communities. For example, in the Municipality of Western Mani (western Peloponnese, Greece) tourist development has caused scarcity of water intensifying during the summer period. In this context, multiple solutions are being studied in order to assist the local communities of Western Mani to deal with this situation.

This study focuses on traditional water harvesting structures and more specifically cisterns. In the past, a cistern was present nearby or almost at every house, collecting rain water so as to cover the various needs of the inhabitants, including human consumption and irrigation. However, although cisterns today have fallen into disuse due to the developments of modern water supply systems, they remain an important part of cultural heritage and an architectural element of great interest.

In this work, we evaluate the potential of traditional water infrastructures to cover domestic needs employing the method of stochastic simulation based on hydrological data and by also taking into account traditional architecture.