

## Soil erosion and degradation in Mediterranean Type Ecosystems. The Soil Erosion and Degradation Research Group (SEDER) approach and findings

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The Soil Erosion and Degradation Research Group (SEDER) is developing a research program since 2002 to assess the soil erosion and degradation processes at the Canyoles River watershed in Eastern Spain. The research study site was selected as representative of the environmental changes that take place in the Mediterranean: abandonment of the agriculture land in the mountains, forest fire expansion, intensification of the agriculture, impact of the infrastructures such as rail and road embankments, and soil sealing due to the urban expansion. The research is based on the continuous measurements in the Montesa and El Teularet research stations and the sampling of the soils, topographical measurements and the use of rainfall simulators, minidisk infiltrometers, ring infiltrometers and Water Drop Penetration Time tests. The research is moving from a pure scientific approach to a more socio-economic view, and the stakeholders are being researched from a perception point of view. SEDER is also moving from pure to applied science, with the objective to design new managements that will satisfy the stakeholders and will achieve the sustainability. The research is being carried out in vineyards and orchards as they show extremely high erosion rates. But also we are interested in the impact of forest fires and the road embankments. In all three research topics, SEDER wish to find the sustainable managements.

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