



Effects of vegetation on connectivity and use in sustainable management of desertified areas: the RECONDES project

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RECONDES is an EU-funded project involving research into the 'Conditions for Restoration and Mitigation in Desertified Areas Using Vegetation'. Major problems in desertified areas of the Mediterranean are related to land degradation, reduction in soil resources, and removal of sediment downslope and downstream. The major premise of the project is that detrimental effects of delivery of sediment and water downstream can be mitigated and soil conservation can be enhanced by reduction of connectivity within the system. Much of the erosion occurs in hot-spots, such as agricultural terrace banks, and linear zones, mainly gullies and channels. Use of vegetation can be targeted for erosion reduction in these locations and provide a more effective and sustainable method than conventional approaches to soil erosion control. The objective of RECONDES is to provide guidelines on how vegetation can be used in specific landscape configurations. The three-year project has combined understanding of mechanisms of land degradation with identification of critical conditions for growth and maintenance of vegetation cover and soil quality. Detailed measurements of plant characteristics and their effects on processes have been undertaken in the Carcavo basin, SE Spain, at a range of scales and in different types of land use. The effects of type, placement and size of vegetation patches are also being modelled. The results of the project are providing recommendations on species and locations of plants to optimise beneficial effects by connectivity reduction.