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Overview of SWC techniques to mitigate soil degradation following wildfires

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Forest fires are the main deleterious process in Mediterranean sub-humid regions. The increasing frequency of wildfires, with increasingly reduced return periods, as a result of global change (i.e. climatic and management practices changes) leads to severe soil degradation processes, widely spread throughout the landscape.
Several strategies have been developed in an attempt to prevent the occurrence of forest fires and reduce its magnitudes when they happen, as point out by the authors in several other works.
Nevertheless, when they occur, several techniques can be applied to mitigate the degradation processes in burned areas.
This paper presents an analysis of the effectiveness of the various techniques used to reduce the degradation processes, based on the literature and in field trials.
In addition to the implementation costs and the effectiveness in reducing soil erosion processes, the paper addresses the questions of feasibility and ecological relevance.
Since the costs may be prohibitive, specially if wide areas are burned, we propose strategic guidelines to target sensitive interventions in burned areas to attain the maximum conservation impacts with the least costs.