



Terraced landscape: from an old best practice to a rising land abandoned-related soil erosion risk

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Among the most evident landscape signatures of human fingerprint during the Holocene, the terraces related to agricultural activities deserve a great importance. Landscape terracing probably represents one of the oldest best practice primarily for crop production, but also for mitigating soil erosion and stabilizing hillslopes in landforms dominated by steep slopes. This technique is widely used in various parts of the world even under different environmental conditions. In some zones, terraced landscapes, because of their history and locations, can also be considered a historical heritage and a sort of “cultural landscape” to preserve, an absolutely value for tourism. To preserve their original role of soil erosion prevention, terraces should be properly designed built according to specific and sustainable engineering rules. Then, their maintenance is the most critical issue to deal with. It is well known from literature that terraced landscapes subject to abandonment would result in an increasing of terrace failure and related land degradation. If not maintained, a progressively increasing of gully erosion affects the structure of the walls. The results of this process is the increasing of connectivity and runoff. During the last few years and partly because of changing in the society perspective and migration toward metropolitan areas, some Countries have been affected by a serious and wider land abandonment with an increasing of soil erosion and derived landslide risk. Italy is one example. In this work, we consider three typical case studies of a terraced landscape where the lack of maintenance characterizing the last few years, increased the landslide risk with several problems to the population. The first case study is located along the renowned “Amalfi Coast” (a portion of land located near Salerno, southern Italy), the second is placed in the north of Toscana (a region located in Central Italy), and the third one along the so-called “Cinque Terre” (a region located near La Spezia, in Central Italy). The goals are to present the state of the art of such issue by integrating historical and cultural point of views, to land use and hydro-geomorphological analysis, also through remotely sensed technologies such LiDAR. Only with a fully integrated approach it is possible to mitigate such problem, planning new sustainable soil conservation practices, and at the same way maintaining agricultural activities.