Vineyard landscapes are a relevant part of the Italian culture. Soil erosion is an important parameter dictating the vineyard sustainability. Several authors concluded that vineyard cropping at steep slopes is the agricultural practice that causes the highest soil loss in the world. Therefore, soil conservation measures are often implemented.
Among them, the construction of bench terraces is the most widely used system, when the ridging disposal is not allowed and the contouring technique is necessary. Moreover, when terraces are not properly designed and maintained can lead to local instabilities creating great hazards for settlements and cultivations, and for the related economy. Terraced fields are also served by a wide network of narrow rural roads and paths that can have deep interactions and effects on surface water flow, increasing erosion and shallow landslide occurrence.
The goal of this research proposal is a holistic quantification - for an area under tremendous agricultural and economical pressure - on how mitigating the main hydro-geomorphic criticalities characterizing such exposed landscapes.
The proposed research project will provide the basis to schedule a suitable planning to mitigate the consequences of the anthropogenic alterations induced by the terraces and their related rural roads and access network.