

Resilience and adaptation in the face of climate change: the Douro wine bio-cultural landscape

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Abstract

The Douro wine region is one of the most important Portuguese wine regions, and the oldest demarcated wine region in the world. The evolving and living cultural landscape resulted from a symbiotic relationship between human and nature, that has proven, through time, to be sustainable and resilient was, in 2001, recognized as a UNESCO world heritage site.

Climate change effects represent a growing/global concern, since more frequent and extreme climate events are expected, that can go beyond the natural ecosystem's resilience, posing additional risks to vine and wine production, that may request the implementation of urgent adaptation measures. This threat has even more importance in communities that mostly depend on the wine industry, as is the case of the Douro Valley.

The evaluation of natural systems resilience to different climate change scenarios, and the how to improve this natural capital, must be a starting point for wine producers, to the local economy agents, and to society at large, before considering more structural and costly adaptation measures.

The aim of the present paper is to analyse the journey of the Douro Valley, to identify local resilience factors to climate change, and to discuss how they can contribute to mitigate the consequences or effects of future climate change scenarios.

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