



Life Cycle Assessment of Red Grape Production in La Rioja Designation of Origin

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Introduction



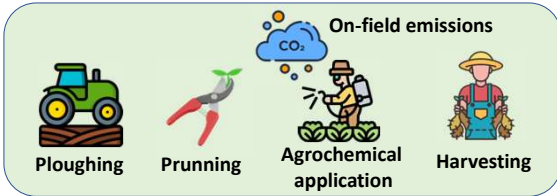
Historically, vineyards have already been quite demanding crops, both in terms of fertilisers and phytosanitary products as well as soil tillage or water. All these intensive practices contribute significantly to the generation of greenhouse gas emissions (GHG), as well as to soil and water pollution, estimating that the production of grapes for wine production generates around 0.3% of annual global GHG emissions, but...
¿How are these conventional practices in La Rioja from an environmental point of view?

Case study



Methodology

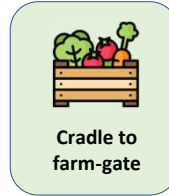
Foreground system



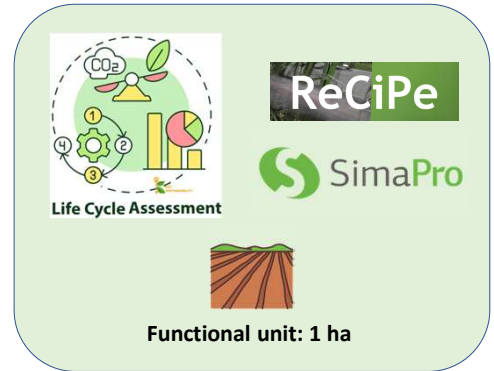
Impact category



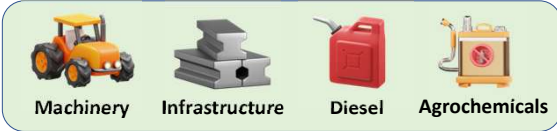
Analisis



Methodology



Background system



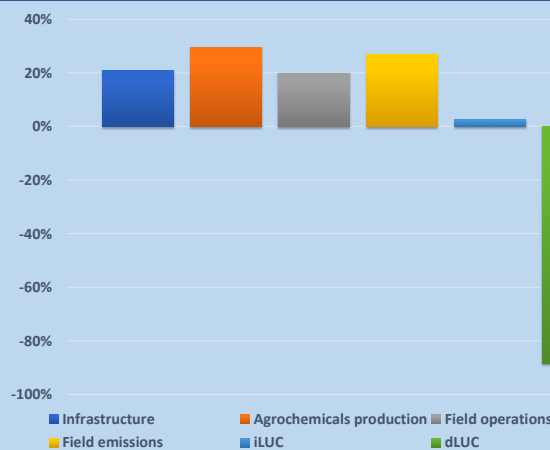
Main characteristics



Results



GW: 161 kg CO₂ eq per ha



Volanti et al., (2022), using the same functional unit, reported a total impact of 438.3 kg CO₂ eq in a no irrigation system, i.e., more than double the GW impacts calculated in this study

Conclusions

- The direct land use change emissions, derived from pruning waste that is deposited in the soil, help to compensate most of the impacts.
- The hot spots of the system are emissions derived from agrochemicals production and field emissions derived from their use.
- The environmental profile obtained is better than mostly of the articles reviewed in literature with similar characteristics.

References

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Trioli, G., Sacchi, A., Corbo, C., & Trevisan, M. (2015). Environmental Impact of Vinegrowing and Winemaking Inputs: an European Survey. *Internet Journal Of Viticulture And Enology*, 7(2)

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