

Impact of climate change-driven wildfires on the life cycle of wood materials



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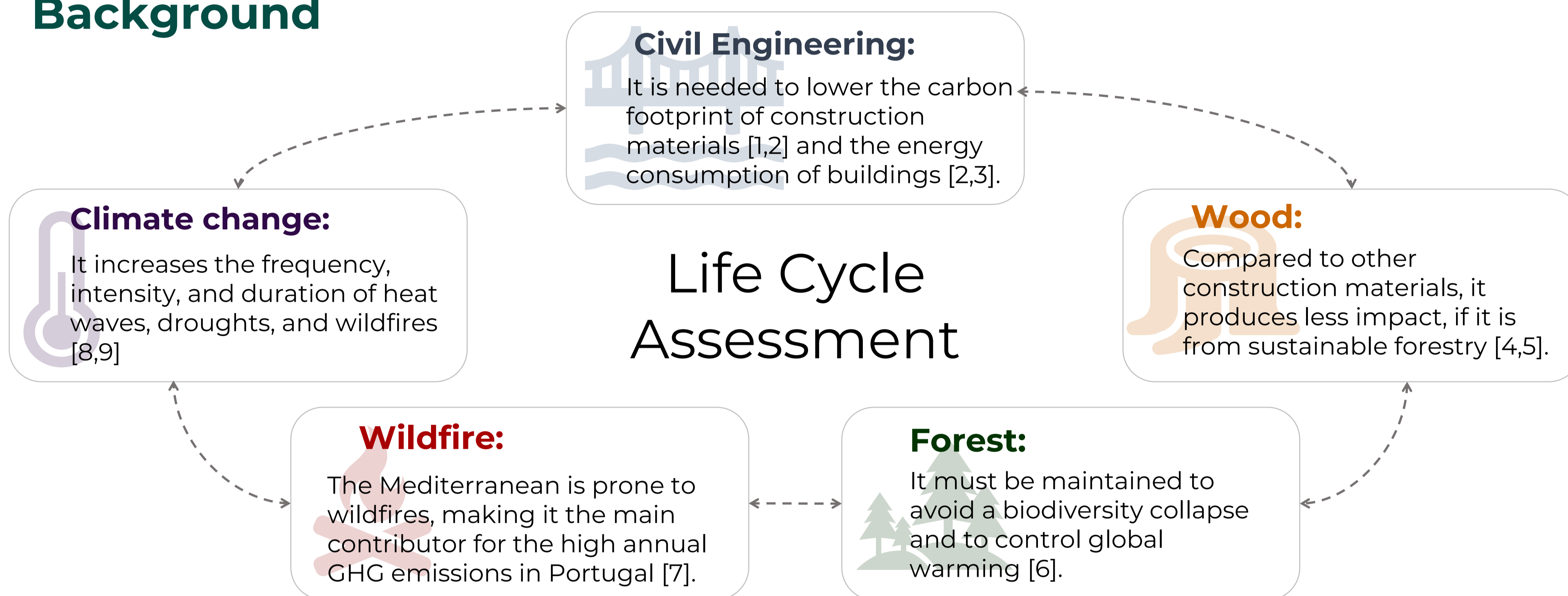
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**IDEAS
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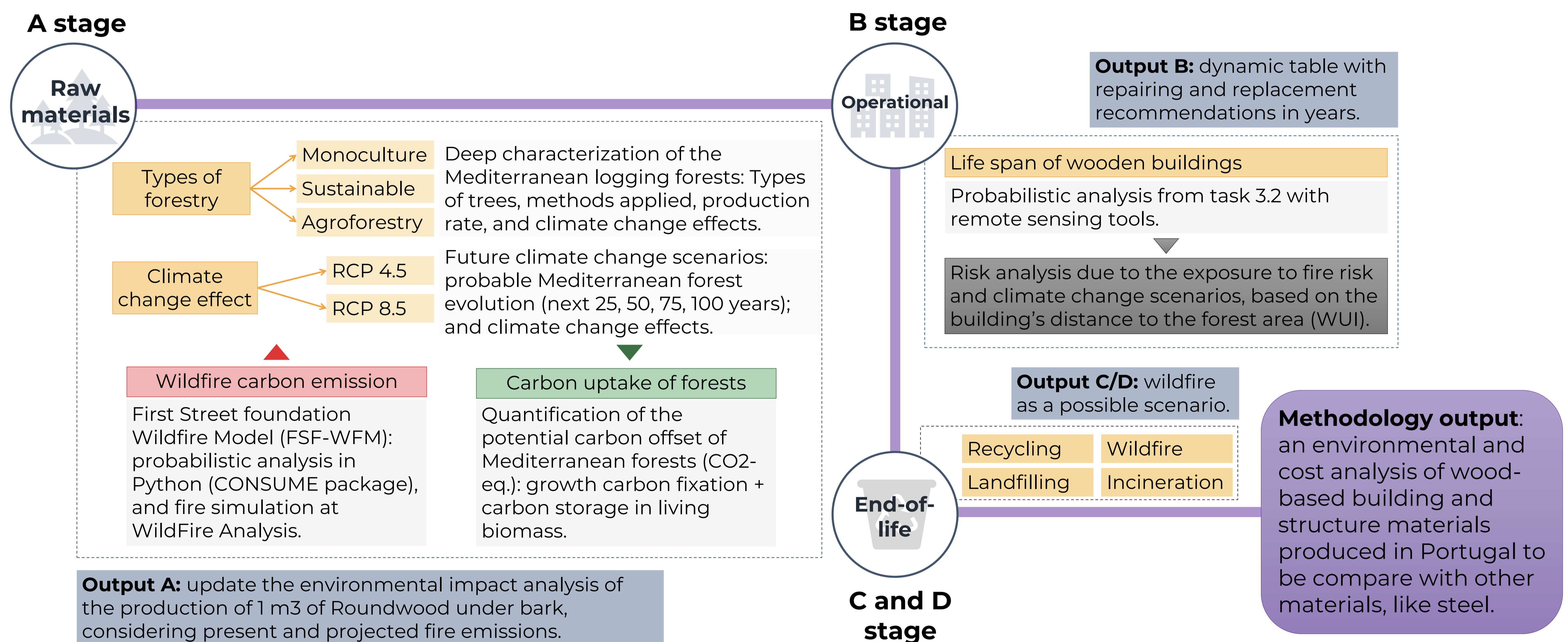
Background



Aim of the Work

“In the present and future climate change scenarios, this proposal intends to explore the **effects of wildfires on the carbon cycle of forests**. As a result, this project seeks to evaluate these **influences on the built environment** and to provide a novel methodology for a **dynamic life cycle analysis of wood-based products manufactured in Southern Europe**, using Portugal as a case study.”

Dynamic LCA Methodology of Wood-Based Products



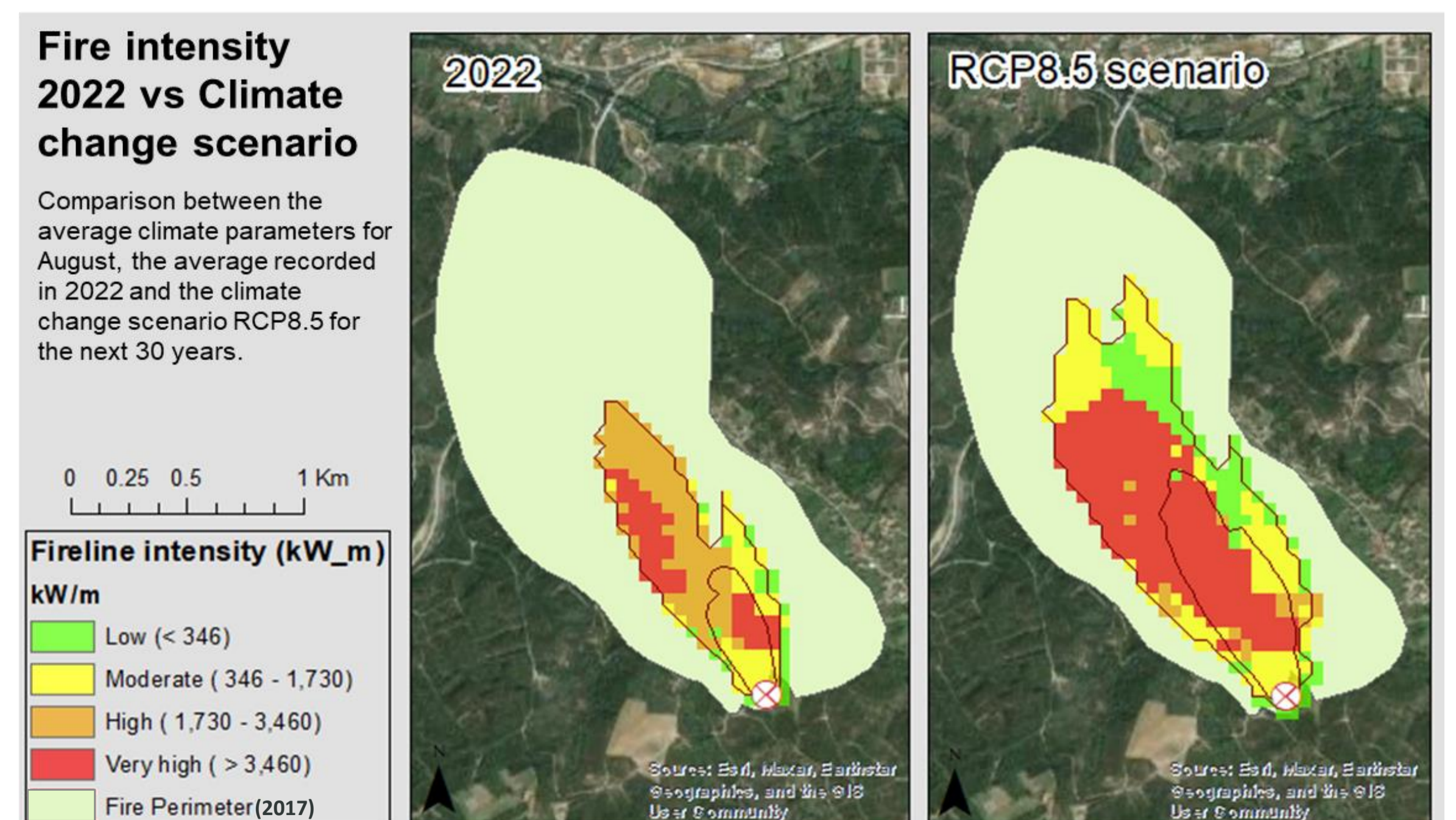
Current and Future Work

Currently, the A stage of the methodology described before is being developed. The Global Warming Potential (GWP) Impact of the Portuguese forests has been assessed using the IPCC Guideline for National Greenhouse Gas (GHG) Inventories [10]. Additional assumptions, like the age of trees, logging data, and recurrent burned areas, have been implemented to achieve a more robust model. The output of this analysis will be published shortly.

References and links:



The next step will be the climate change projections for the carbon balance of forests and wildfire emissions, as detailed before. A sample of the work that will be developed can be seen in the preliminary analysis shown in Figure 1. This analysis intends to compare one of the major forest fires from 2017 (light green shape) with the projections (colorful shape) from a present (2022) and future (RCP 8.5) climate change scenarios.



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