

Climate change adaptation measures in the management of natural and environmental risks Project presentation

MOTIVATION

Natural hazards and correlated risks fill worldwide headlines raising both public and governmental concern. Facing a new public and scientific information demand for new data and above all solutions for such pertinent issues, the Polytechnic of Tomar proposes CLIMRISK as a starting point to a new integrated line of research where all variables alike will be addressed, studied and interpreted in а geographical database (geodatabase).

The **CLIMRISK** project focuses on a specific transitional area (NUTII), strategically located between the Southern plains and the northern mountainous area (**FIGURE 1 (A)**), which intrinsically experiences the influence of the complete set of risks characteristic to both regions.

FIGURE 1. (a) Study area within NUT II (b) Thematic intervention areas (c) Watersheds, Nabão and Lis rivers







INTRODUCTION

Recent extreme events, such as heatwaves, droughts, floods as well as the increasing number of forest fires and other natural hazards have raised public awareness regarding the influence of the Climate change and the environmental and socio-economic impacts. Such natural hazards also have na effect on infrastructures and human activities, cost millions of euros and cause human casualties.

Building upon the technical and scientific ability of the created consortium, **CLIMRISK** proposes the integrated study of climate, coastal areas, rivers, forestry, and biological variables, associated risks in the study area (**FIGURE 1 (B), (C)**), thus creating knowledge base to propose useable tailor made **adaptation measures**.

As such, **CLIMRISK** project aims at Climate change impacts assessing which is of utmost relevance for policymakers, decision-makers, and stakeholders, as a valuable tool in developing suitable adaptation measures targeting several priority domains of specialization smart (integrated management and monitoring of natural endogenous resources), which hopefully will reduce their harmful effects at a regional scale (FIGURE 2).





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AIMS AND PURPOSE

The behaviour of the Climate is crucial in the analysis of the risks associated with several natural phenomena, therefore its impacts are assessed on a regional level with sectorial models for each risk. This will enable to project vulnerability areas associated with these risks important to regional stakeholders. Risk charts that reflect the Climate change for municipalities to incorporate in their territorial management instruments will be elaborated and incorporated in the geoportal. This territorial information system of climatic risks will disclose the potentially affected strategic regional resources.

The outputs clearly benefit the scientific community and inherent educational mainstreaming, whereas directly targeting organizations dealing with the general public, and environmental education.



FIGURE 2. Conceptual structure of CLIMRisk integrated line of research



