

# AQUADAPT – Promoting Riverine Ecosystems Resilient to Climate Change for a Sustainable Management

## Summary

Recent climate scenarios predict dramatic changes for the inland region of Portugal, where the increase in air temperature might reach +5°C by 2100, accompanied by a strong decrease in precipitation and an increase of extreme events. Such forecasts imply changes in thermal and hydrological patterns in the coming decades, leading to an increase in the frequency, intensity and duration of droughts and floods. Consequently, the sustainable development of Portugal's inland region will inevitably depend on the ability to adapt to such climate-related changes.

The project AQUADAPT, funded by La Caixa Foundation, aims to promote the resilience of river ecosystems to climate change, through risk assessment and the construction of adaptation tools. The goal is to develop a high-resolution monitoring and warning system through modelling, forecasting and planning techniques using freshwater fishes as indicators, and test nature-based solutions in degraded areas of protected and agricultural areas. The innovative

character of this project lies in the multidisciplinary approach gathering investigation, planning tools, and dissemination, and its relevance lies in the construction of replicable products at the national and international context.

By bringing together academic partners (ISA-CEF, IST-CERIS), public administration (APA) and companies (EDIA), the project AQUADAPT uses a multidisciplinary approach gathering investigation, planning tools, and dissemination. The gained knowledge of climate and hydrological changes, their impacts, and possible natural responses to promote resistance and resilience of ecosystems will allow the construction of scenarios and alternatives for an informed decision-making by politicians, managers, and other stakeholders for the coming decades. This way, the project AQUADAPT will nurture the transformation towards a more sustainable region for people and nature.

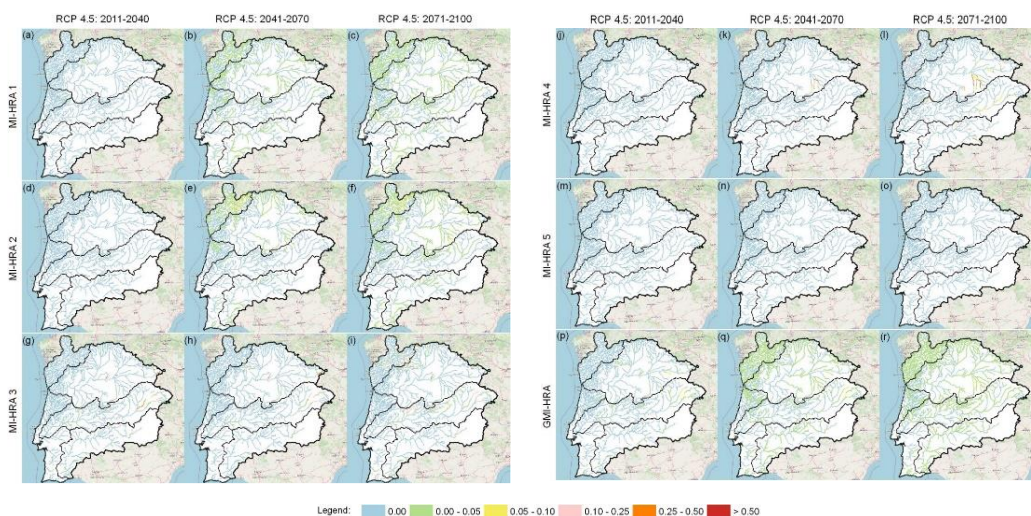


Figure 1. Spatialization of the MI-HRAi indices and the GMI-HRA index over the study area for the RCP 4.5 scenario.



### Project Reference

PD20-00008

### Leading Institution

ISA – Instituto Superior de Agronomia (Portugal)

### Partners

IST-ID – Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento (Portugal), APA – Associação Portuguesa do Ambiente (Portugal), EDIA – Empresa de Desenvolvimento e Infraestruturas do Alqueva, S.A. (Portugal)

### CERIS Principal Investigator

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### CERIS Research Team

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### Funding

FCT – Fundação para a Ciência e Tecnologia

### Period

2021-2024

### Total

321 891.00€

### CERIS

49 584.00€

### Project Website

[aquadapt.pt](http://aquadapt.pt)