



## The Portuguese Climate Portal

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The Portuguese Local Warming Website (<http://portaldoclima.pt>) has been developed in order to support the society in Portugal in preparing for the adaptation to the ongoing and future effects of climate change.

The climate portal provides systematic and easy access to authoritative scientific data ready to be used by a vast and diverse user community from different public and private sectors, key players and decision makers, but also to high school students, contributing to the increase in knowledge and awareness on climate change topics.

A comprehensive set of regional climate variables and indicators are computed, explained and graphically presented. Variables and indicators were built in agreement with identified needs after consultation of the relevant social partners from different sectors, including agriculture, water resources, health, environment and energy and also in direct cooperation with the Portuguese National Strategy for Climate Change Adaptation (ENAAC) group. The visual interface allows the user to dynamically interact, explore, quickly analyze and compare, but also to download and import the data and graphics.

The climate variables and indicators are computed from state-of-the-art regional climate model (RCM) simulations (e.g., CORDEX project), at high space-temporal detail, allowing to push the limits of the projections down to local administrative regions (NUTS3) and monthly or seasonal periods, promoting local adaptation strategies. The portal provides both historical data (observed and modelled for the 1971-2000 period) and future climate projections for different scenarios (modelled for the 2011-2100 period).

A large effort was undertaken in order to quantify the impacts of the risk of extreme events, such as heavy rain and flooding, droughts, heat and cold waves, and fires. Furthermore the different climate scenarios and the ensemble of RCM models, with high temporal (daily) and spatial ( $\sim 11$ km) detail, is taken advantage in order to quantify a plausible evolution of climate impacts and its uncertainties. Clear information on the data value and limitations is also provided.

The portal is expected to become a reference tool for evaluation of impacts and vulnerabilities due to climate change, increased awareness and promotion of local adaptation and sustainable development in Portugal.

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