

Topics (T)

The Social, Communications, Economic and Cultural Dimensions of Environmental Change (9)

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CLIMATE RISK INDICATORS FOR INDUSTRY

Abstract

Organisations around the world are working to mitigate and adapt to the changing climate. In addition to this, large UK companies are now legally required to disclose climate-related financial information, reporting on the risks and opportunities they face as a result of climate change. Telespazio UK, in collaboration with Assimila, developed a new tool to support these challenges. With a focus on supporting financial institutions and governmental organisations initially in the UK, the tool performs an analysis of historical and future climate trends and extreme weather events to provide climate extreme indices. The tool can support organisations or financial institutions looking to gain insights into how the changing climate could affect their areas of interest and their investments. Telespazio UK are also working with intermediaries and consultancies as well as directly with financial institutions to support them in performing climate risk assessments and disclosures through the provision of readily ingestible space-based climate data.

The tool provides access to pre-calculated climate indices for temperature extremes, heavy rain, drought, high winds, and sea level. These indices cover the historical period from 1950 to present and are developed from ERA5 reanalysis data and satellite earth observation datasets from the European Space Agency (ESA) Climate Change Initiative (CCI). Future climate trends are provided from 2015 to 2100 using selected Coupled Model Intercomparison Project 6 (CMIP6) projections and scenarios. The tool provides a platform with interactive user interface for the dynamic interrogation of the data for selected areas of interest (AOI), or alternatively can provide climate indices output to integrate into existing financial tools. A standard climate impact index (the Actuaries Climate Index (ACI)) that combines these historical datasets and future trend data into a single index to help inform users of the potential impacts of climate change is also provided. Alongside the platform and interface, Telespazio UK offer a consultancy service to develop detailed use cases in collaboration with end users to ensure the service addresses their needs and supports their activities.