



Climate change attribution: extreme weather events and their impacts from the perspective of the stakeholder (EUPHEME)

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Hazardous weather events across Europe occur on an annual basis. Such extreme weather events include heat waves, floods, storm surges and wind storms. Many feel that these events are increasing in frequency, and that this positive rate of occurrence is as a result of anthropogenically produced climate change. Understanding the link between extreme weather events and climate change is vital, when trying to mitigate their impacts upon stakeholders in society.

The EUPHEME project aims to study and decipher this connection, while also developing a climate change attribution service for stakeholders. Using this service a positive impact for stakeholders across Europe is expected, with the additional objective that it would help reduce the economic and operational impacts of extreme weather events.

An analysis of the potential stakeholders who may be impacted by such extreme weather was undertaken. It was discovered that there are many people, groups, organisations, companies and governmental departments who are affected by such events, with the largest stakeholder group being the general public. This is a key role identified for national meteorological services across Europe. Questionnaires, interviews and discussions were conducted to gather as much initial information as possible. How each stakeholder conducts their operations, and makes decisions, which are influenced and impacted by extreme weather events, was discovered. This was then fed back into the EUPHEME project's development team, where it was used to develop an event attribution service and website. This website was then exposed to selected stakeholders for further development.

By maintaining a constant feedback interaction loop with our stakeholders, a large amount of useful information and details about the requirements of our stakeholders in relation to extreme weather events were collected. This allowed our research team to develop a climate change attribution service and website.

Many positive benefits are expected, and these will be experienced by the engaged stakeholders. These benefits include an increased awareness of extreme weather, a better understanding of the rate of change of risk of certain weather events occurring, a potential reduction in any financial costs and providing better planning and services for the general public.

The EUPHEME project started in September 2017 and will last 36 months. It is part of ERA4CS, an ERA-NET initiated by JPI Climate with co-funding from the European Union (Grant n° 690462).