



WATER management for road authorities in the face of climate Change: protocol for climate data

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Road authorities use climate data for the design and maintenance of roads, and in several countries information on climate change is used for the design. Within the WATCH project overviews were generated of which climate data are currently used for the “current” and future climate in nine European countries. The users of these data often do not know very well which “current” climate the data describe or what the percentage change for the future is based on. For the WATCH project an overview was made of available climate data for the current and future climate, including metadata. Also a protocol was developed to check systematically the available data and to generate required data. This protocol consists of determining what is needed and what is available (e.g. point or area rainfall statistics, reference period, return times, rainfall durations, format, life cycle of the asset under study, etc.) and if needed, information on how to generate the required information for the current and future climate. Examples are provided for the various steps in the protocol for several countries. In most countries information on future changes in short duration extreme rainfall is absent. Therefore, scaling with available data such as temperature can be used (based on the approach used by Lenderink and Attema, 2015). Based on research into extreme rainfall on observations and climate modelling, it seems most appropriate to use a scaling method whereby changes in rainfall extremes are set proportional to the change in dew point temperature. In this presentation the protocol will be presented and the background explained.