

Getting More from Observations for Adaptation Planning

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**'Climate Science Needed to Support Robust Adaptation Decisions' Workshop
GeorgiaTech, Atlanta, USA**

7 February 2014

Abstract

When considering climate science to support climate adaptation it is common to jump to questions of climate prediction and focus on what can be said about the future. The existence of anthropogenic climate change, however, means that the climate of today is already different from that of the past and not well represented by distributions built up over the latter half of the 20th century. Design criteria drawn up in the past, for instance in building design or flood management, can therefore seriously misrepresent the risks represented by today's climate let alone that of the future. Understanding how today's climate has changed from that experienced in the past is an important stepping stone to preparing ourselves for the future and side-steps many of the conceptual challenges in detailed climate forecasting. Timeseries of observations of weather can be processed to provide a picture of the changing shape of climate at local scales. I will discuss a method for extracting information on the observed changes in local climate at decision-relevant thresholds. Maps of the geographical variations of such changes at specific quantiles and thresholds could be used in the prioritisation of adaptation investments at regional, state or national scales. I will also discuss issues in the statistical interpretation of the data and the basis for arguing that some results have clear value while others do not.