Urban climatology and its relevance to urban planning and design

Gerald Mills*
*University College Dublin

Abstract

In 1976 Chandler published a WMO Technical Note (No. 149) on Urban Climatology and Urban Design that sought to provide guidelines for meteorologists in a new arena. In this paper I will present an update of this work, which is also due to be published by the WMO. When Chandler's work was completed, the field of urban climatology was still in its scientific infancy. His work focuses mainly on changes in temperature, humidity, etc. that are caused by urban development and contains few planning guidelines. Since its publication our understanding of urban climates has improved considerably and this provides an opportunity to re-evaluate the relevance of urban climatology to urban design. In addition, there is now a substantial body of case-study materials and a growing area of guidelines for climate-based planning. Finally, the prospect of global climate change and the vulnerability of urban areas has become a major area of scientific research. In this paper I will present a modern overview of urban climatology and its relevance to urban design and planning.