

E-5044/10EN

Answer given by Ms Hedegaard  
on behalf of the Commission  
(6.9.2010)

The urban heat island effect is recognised as a phenomenon that exacerbates the risks posed by extreme summer temperatures. As extremely high summer temperatures are expected to occur more frequently in the future, mitigating urban heat island effects will become ever more important. The possible measures for the mitigation of urban heat islands belong for the most part in the realm of urban planning, and are thus within the competence of national and local governments. However, the EU's policies related to increasing the energy performance of buildings by better insulation and to improve the energy efficiency of air conditioning units will also help to mitigate the urban heat island effect.

The impact of climate change on urban air quality is investigated in a study carried out under the aegis of two sister 7<sup>th</sup> Research Framework Programmes, called CityZen<sup>1</sup> and MegaPoli<sup>2</sup>. They look at the effects of megacities and emission hot spots on their local, regional and global environment, regarding both air pollution and climate change. CityZen also deals with the effect of climate change on air quality.

From the perspective of public health and productivity, the urban heat island effect is not different from a normal heat wave. Therefore, the studies on the general public health effects and economic costs of heat waves can provide insights<sup>3</sup>. The Commission has not carried out studies on the actual human and economic costs of past events where high temperatures resulted in conditions harmful to human health because of the presence of an urban heat island.

With regards to the CO<sub>2</sub> emissions or energy use attributable to the urban heat island phenomenon, the Commission has made no calculations on this. Research indicates that urban heat island effects also appear in the winter, in which case their impact is to reduce CO<sub>2</sub> emissions or energy use.

There currently exists a wealth of research on ways to reduce the urban heat island effect, and best practices are exchanged among local governments. National and regional governments also provide guidance on the matter. For its part, the Commission will establish by 2012 the Adaptation Clearing House Mechanism, which will make available information on research related to the urban heat island effect itself and on the best practices to reduce its effect. A requirement for measures to reduce the urban heat island effect is also currently considered for inclusion in the voluntary European Ecolabel scheme for Buildings.

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<sup>1</sup> <http://cityzen-project.eu>

<sup>2</sup> <http://megapoli.dmi.dk/index.html>

<sup>3</sup> A summary of the main findings from studies on the health effects of heat waves is available from [http://ec.europa.eu/health/climate\\_change/extreme\\_weather/index\\_en.htm](http://ec.europa.eu/health/climate_change/extreme_weather/index_en.htm)