



Green and blue solutions to climate change mitigation and adaptation in European urban areas

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Climate variability can trigger short- and long-term impacts on society and environment. In the last decades, climate change has become a major topic for policy makers at various levels, and adaptation to climate change equally challenge the national, international and local decision-makers and stakeholders. The scientific community strives for providing tools and arguments to fundament climate change adaptation needs, and the spatial, temporal and functional coherence of the strategies is the key for a successful implementation.

Europe, and especially the European Union (EU), has reacted promptly to the climate change challenges. Since 2005, many member states have embraced national adaptation strategies (NAS) and national and/or sectoral adaptation plans (NAP/SAP), while an EU strategy on adaptation to climate change was adopted in 2013, aiming to enhance the resilience of the continent to climate change. With an efficient transfer to lower spatial levels and with new technologies and innovative approaches, the regional and local communities would reach an improved preparedness and higher mitigation capacity to the future climate.

The water and vegetation (blue and green) largely contribute to alleviating some climate threats (i.e. excessive heat) and secure the climatic comfort of any region. Cities are mainly targeted by blue and green-based interventions. This study investigates (i) the compatibility and consistency between different spatial scales of the climate change adaptation strategies (i.e. transnational, national, local), (ii) the role of the blue-green infrastructures in the climate change adaptation strategies, (iii) regional differences and temporal dynamic of the NASs and NAP/SAPs at European scale