Mainstreaming of adaptation to climate change into six Italian cities: an analysis of planning tools

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**Abstract.** Climate change is an increasingly concerning phenomenon. Over the last decades, mitigation strategies have been promoted to reduce greenhouse gases emissions. However, mitigation is likely to have effect in the long-term, while short-term measures are called for. Thus, the interest of scholars in adaptation to climate change solutions has increased and European member states are introducing adaptation principles in national strategies and plans. Italy adopted the National Strategy for Adaptation to Climate Change in 2015 and the National Adaptation Plan to Climate Change is currently under strategic environmental assessment. Some Italian regions have adopted regional strategies for climate change adaptation (CCA), which should be a reference framework for introducing adaptation considerations in the planning systems and processes at regional and sub-regional (for example, cities) scale.

This study addresses the integration of CCA into strategies, plans, programs, and projects (SPPPs) adopted by six cities (Bologna, Milan, Naples, Rome, Turin, and Venice), by using a set of four criteria rooted in scientific literature and European and national adaptation strategies. We assessed if SPPPs: (i) refer to international, European and/or national strategies for adaptation to climate change; (ii) include -even in implicit form- CCA objectives and (iii) measures; (iv) are based on a climatic analysis on historical series and/or future projections.

We found out that CCA is being considered in different ways over the six cities, most of which have introduced CCA principles and scopes in a promising way. However, the mainstreaming of CCA is still in its infancy and it needs more time to be deeply integrated into the planning system.