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## NORWAY

### Cities of the Future Integrating Climate Change Adaptation

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Norway is a Scandinavian country positioned in Northern Europe, with a population of just over 5 million inhabitants. Its economy has been dominated by oil and gas exports, positioning it as one of the top 20 countries with the highest CO<sub>2</sub> emissions. According to forecasts made by the Intergovernmental Panel on Climate Change (IPCC), Norway's annual mean temperature is expected to rise by 3.4 degrees Celsius this century and precipitation has already increased by 20% since 1900.

Acknowledging the vital role cities play in mitigating climate risk, Norway has adopted a multifaceted urban policy approach. In particular, municipalities were identified as having significant responsibility in influencing the urban environment at a local level and in turn influencing constituent attitudes to energy consumption. In 2007, White Paper no. 33 addressed the need for greater climate change adaptation methods and in 2008, the government issued planning guidelines requesting municipalities to prepare climate and energy plans to address climate change. This was ratified in the Planning and Building Act, where section 1 stated that addressing climate change should be one of the main focuses of planning. This legislation led to a series of assessments conducted at a local level, to identify risks and vulnerabilities, but also flag opportunities to proactively adapt. Developing from this, the Cities of the Future Programme invited thirteen of Norway's largest cities to take part in a collaborative project

to reduce emissions and make cities more liveable. Integral to this was the concept of compact cities, those which favour walking and cycling and promote dense, liveable urban forms. The programme sought to create a stronger connection between federal and regional areas, as well encourage collaboration between industry and citizens. Consequently, participating cities worked with a range of stakeholders to create an action plan that synchronise future land use patterns with sectorial projects.

The Norwegian Government has successfully mobilised a variety of stakeholders to transform climate policy into concrete actions. By understanding the fundamental link that urban planning has on climate mitigation, federal government has been able to take calculated steps in influencing national, regional, local and sectorial actions through legislation and planning. Today, 13 cities have included adaptation to climate change as a goal in their master plan and detailed plans, an increase from only 2 cities in 2008. Further to this, vulnerability assessments have led to revised master plans which address areas at risk of sea level rises and inundation caused through flooding. This has been possible due to the Cities of the Future Programme, which has created a forum for ideas sharing, resulting in insurance companies sharing spatial data on flooding claims. The value added to the programme through integration of urban planning and sectorial policies has improved Norway's resilience to climate change and created an ongoing dialogue between key actors, an important asset in urban management for the future.