

Private Sector Initiative actions on adaptation

Title of case study	The effects of climate change on highway network policies and standards
Name of organization(s)	URS Corporation
Business sector	Construction and Engineering
Region(s) relevant to case study	☐ All regions ☐ Africa and the Arab States ☐ Asia and the Pacific ☐ Caribbean and Central America ☒ Europe ☐ Least Developed Countries ☐ North America ☐ Polar regions ☐ Small Island Developing States ☐ South America
Country(s) relevant to case study	United Kingdom
Adaptation sector(s) relevant to case study	□ Business □ Education and training □ Food security, agriculture, forestry and fisheries □ Human health □ Oceans and coastal areas □ Science, assessment, monitoring and early warning □ Terrestrial ecosystems □ Tourism □ Transport, infrastructure and human settlements □ Water resources □ Other (please specify):
Adaptation activity	Existing highways construction and maintenance policies and standards are typically based on historical climate data but attention now needs to shift to future predictions. In order for the highway network to be resilient in a changing climate, highway network owners and operators must take action to adapt their policies and standards to minimise the disruption and costs caused by future climate change.

URS Scott Wilson was commissioned by the <u>3 Counties Alliance Partnership (3CAP)</u> in the United Kingdom to carry out a collaborative study to investigate the impact of climate change on their highway policies and standards and to identify adaptation opportunities. The study was based on UK Climate Projections 2002 and 2009 (UKCIP02 and UKCP09) for change up until the 2080s and included a risk and probability assessment of the effects of climate change on the highway network, and the development of recommended adaptation actions for key policy areas. This was conducted through the implementation of a bespoke multi-criteria analysis methodology, and made use of URS Scott Wilson's Adapting to Climate Change Tool (AtCCT).

The AtCCT is applicable across regions and for a range of sectors, and helps users understand the climate change risks and opportunities related to their projects and to develop prioritised adaptation responses to reduce risks and maximise opportunities

As a result, a climate change adaptation action plan was developed and the three authorities have been able to start taking steps towards managing the effect that climate change may induce on their highways networks in the future.

Cost-benefit

The adaptation opportunities recommended will allow the three authorities to work towards aligning their policies and standards to deal with the future effects of climate change. The alignment will make maintenance, repair and inspection activities more efficient and consistent across the region. This will lead to capital and whole-life resource savings, and an increasing synergy of operations across the region. By taking action now the network will be more resilient to the effects of the changing climate and it will reduce the cost and inconvenience caused by any necessary emergency or reactive work in the future.

