

Adapting the UK's transport system to the impacts of climate change

Personal details

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Q3. Are you responding on behalf of an organisation?

Yes

Organisation details

Q4. What is your job title?

Assistant Director

Q5. What is your organisation's name?

Urban Transport Group

Q6. What best describes your organisation?

Another type of organisation:
Network representing UK transport authorities

Culture: embedding climate risk

Q16. Overall, in your view, will the actions in 'Culture: embedding climate risk' make organisations responsible for transport infrastructure more or less likely to report on climate risks?

Don't know

Culture: embedding climate risk

Q18. In your view, what more, if anything, could government do to further encourage reporting on climate risks?

Whilst our members are at different stages of development in relation to embedding climate risk, all who have so far published transport strategies to 2040 include adaptation to climate risk in their objectives and policy plans. For example:

- Greater Manchester's Transport Strategy 2040 identifies maintenance of networks as a key challenge for the strategy in supporting economic growth. The strategy identifies 'an increasing challenge to keep networks open in the face of adverse weather (linked to climate change), ageing infrastructure and more intensive operation.' It recognises the increase in extreme weather conditions and the need to adapt to these, for example through planting trees to reduce run-off.

Policy 10 reiterates the area's ambition to be net zero carbon by 2038 and 'to implement measures to ensure our transport system is resilient to climate change.' Policy 22 pledges to work to improve and maintain the condition and resilience of the road network, drawing on best practice. It also contains an ambition for all new transport schemes to deliver environmental enhancements wherever possible.

They will work with partners to identify infrastructure at significant risk from climate change impacts and implement appropriate mitigation, drawing on best practice.

The Strategy also suggests that future developments could make use of predictive data to warn customers in advance about adverse weather, combined with real time monitoring of conditions with sensors and CCTV to enable more accurate information.

- Liverpool City Region's Draft Local Transport Plan to 2040 centres around five goals, one of which is 'ensuring that our transport network and assets are resilient, responsive to the effects of climate change, and are well maintained'. It recognises the increased incidence of extreme weather conditions and the need to plan for these more proactively, including through better understanding and monitoring of the condition of infrastructure.

- Transport for West Midlands Local Transport Plan Core Strategy contains six 'Big Moves' to be achieved, one of which is a 'safe, efficient and reliable network'. It recognises the need to manage and maintain the network to adapt to climate change and ensure it is resilient to extreme weather events. It notes that more extreme weather is already speeding up the degradation of roads. 'The Green Transport Revolution Big Move' further sets out plans to embed climate change adaptation into policy and delivery.

- The North East Transport Plan 2021-2035 highlights the issue of a large road maintenance backlog as well as the need to spend money on other assets to cope with the increased incidence of extreme weather.

- West Yorkshire Combined Authority's Transport Strategy 2040 includes asset management and resilience as a core theme and resilience against climate change as part of three high level objectives for the strategy. In common with the other strategies, a backlog in maintenance (due to a lack of funding) is identified which compounds the effects of extreme weather on transport infrastructure. They aim to take a proactive approach to address network resilience.

- Transport for London has a dedicated Climate Change Adaptation Plan and monitor the impact of extreme weather events. Severe heat in July 2022 (when temperatures reached 40C) resulted in £8m of lost revenue amongst other wider impacts. They have a dedicated research programme to better understand the effects of severe weather and climate change. Its ambition is to adapt the transport system to maintain resilience and in so doing, create a more attractive nature-rich and liveable city. TfL already reports to Defra under the voluntary Adaptation Reporting Power, including a comprehensive Asset Climate Risk Assessment.

Our members are already embedding climate risk in their objectives and recognise the urgency of the task. Having up-to-date, relevant guidance on Local Transport Plans would help to further support them in planning for climate risks.

It should be recognised that transport authority revenue budgets continue to be very constrained, which impacts their capacity to undertake additional reporting processes and risk assessments. Funding allocations should reflect any additional new burdens that the processes set out in the document may generate.

We note that UK airports, Train Operating Companies and Freight Operating Companies will only be required to 'voluntarily report' on adaptation action in 2024. We suggest stronger measures if the overall goal of a transport sector that regularly reports on climate risks is to be achieved.

In embedding climate risk into culture, reporting is only part of the story. It identifies where the problems lie but does not necessarily translate into action to tackle them, or the funding needed to do so.

The strategy rightly recognises that the work of adapting to climate change is never done and requires concerted, long-term planning and action.

To translate reporting into action requires the costs of ongoing maintenance and adaptation to be factored

Q18. In your view, what more, if anything, could government do to further encourage reporting on climate risks?

into funding allocations. It also requires funding certainty to support long-term planning. Whilst moves towards Single Settlements and the approach taken to City Region Transport Settlements are encouraging, Government spending on transport has tended to favour national over local, capital over revenue and competitions over long-term certainty.

This funding environment has acted as a barrier to long-term planning, with work being approved based on available funding, rather than by systematically working through phased programmes to address identified local needs. Costs of delivery are increased by the stop-start nature of funding, preventing the formation of a steady pipeline of work and a build-up of skills and expertise.

In describing their resilience plans, our members frequently refer to the backlog in highway maintenance. Nationally, the backlog would take 11 years to clear according to the most recent Annual Local Road Maintenance Survey by the Asphalt Industry Alliance, with the cost of doing so at a 28-year high. Whilst highway maintenance budgets have increased, the increases are not sufficient to keep pace with inflation, representing a cut in real terms.

Maintenance and adaptation requirements also extend to other infrastructure, from bridges to buses and from railway tracks to bus stations. Extreme weather will only serve to accelerate deterioration and increase costs.

Transport authorities need long-term capital and revenue funding settlements that reflect the need to arrest the decline of existing assets and ensure that future developments utilise the most effective climate change adaptation measures.

This in turn requires investment in climate adaptation skills. One of our members, located in the North of England who wished to install rain gardens found it difficult to find contractors with the right expertise locally to tender for the work. Specialists were located in London and were either unwilling to travel or prohibitively costly. After tendering twice, they had to set up a consortium of non-specialist agencies to deliver the project.

Finally, in respect of embedding climate risk in organisational culture, the awaited Local Transport Plan guidance from the Department would be a good opportunity to underline the importance of the issue.

Economics: making the case for adaptation

Q19. Overall, in your view, will the commitments in 'Providing the tools required' support organisations responsible for transport infrastructure in taking adaptation action?

Yes

Providing the tools required: agreement

Q20. Explain how the commitments will support adaptation action.

We welcome the intention of the Department to develop an industry-wide best practice approach to climate risk assessment. Any action to simplify, better signpost and streamline the available tools, mechanisms and guidance helps to reduce burdens on local authorities, prioritise activity and make best use of limited resources.

Similarly to the previous section, being able to access best practice, understand and map the risks of climate change (whilst valuable) will not fully translate into action without adequate long-term capital and revenue funding and interventions to address skills gaps.

Building the evidence base

Q22. Overall, in your view, will the research commitments in 'Building the evidence base' support organisations responsible for transport infrastructure to make evidence-based investment decisions on climate change adaptation?

Yes

Building the evidence base: agreement

Q23. Explain how the commitments in this section will support evidence-based investment decisions.

We welcome DfT's suggestion that it 'can usefully cut through some of the uncertainty which may be inhibiting decision-making and adaptation spending.' Transport authorities are time-poor and any action to translate detailed data and academic research into understandable outputs and practical action will help them to manage their capacity.

As above, we also need skills initiatives to train people in delivering climate change adaptation measures on the ground so that all areas can access the skilled workers they need to deliver and install transport adaptation infrastructure. This would be a good way to deliver social value locally and new green jobs.

The proposal to take account of the costs of climate risk in DfT business cases and Transport Analysis Guidance (TAG) is also welcome in helping to make the case. This should form part of a wider review of TAG in light of the climate emergency, for example, addressing the disproportionate weight placed on private car (dis)benefits which cause challenges in building business cases for sustainable transport projects.

Our members would be keen to take part in trials of adaptation measures as proposed in the strategy. Our members and their constituent local authorities have an excellent track record in testing new approaches in this area.

Liverpool, for example has a programme of nature-based solutions around climate change adaptations as part of the wider EU-funded URBAN GreenUP project. It has introduced its first urban rain garden to reduce surface water flooding, installed green walls (including a 65 metre long hydroponic system on St John's Shopping Centre) and increased pollinator planting (including solar powered, self-irrigating 'smart pollinator pillars'). These measures have absorbed and harvested excess rainwater, increased biodiversity, improved air quality and improved thermal regulation. They also have benefits for placemaking, creating greener, more pleasant environments.

Transport for West Midlands is involved in the Adept 2 Centre of Excellence for Decarbonising Roads, evaluating a wide range of innovative decarbonised highway materials and is also working with the University of Birmingham to develop a climate risk and vulnerability tool.

Incentivise action

Q25. Overall, in your view, will the actions in 'Incentivise action' support organisations responsible for transport infrastructure to embed adaptation into:

	Yes	No	Don't know
projects	X		
policies	X		

If you answered 'yes', explain how the actions in this section will support organisations to embed adaptation, if you answered 'no', explain why the actions will not support organisations?

We agree that resilience to climate change should be considered from the outset when developing new schemes and on an ongoing basis as infrastructure undergoes maintenance. Actions to deliver, upgrade or maintain infrastructure offer opportunities to put in place climate change adaptation measures at the same time.

We also support the inclusion of climate adaptation in planning policy documents and, as mentioned above, in TAG as part of a wider refresh to ensure alignment with wider environmental and decarbonisation goals.

In addition to national level stakeholders, incentivisation of climate adaptation measures should also be extended to local transport funding agreements. With transport authorities responsible for maintaining and delivering a wide range of transport infrastructure there is potential here to accelerate action on the ground in a way that also supports communities and wider goals around economic growth, placemaking and health.

Measuring progress

Q26. Overall, in your view, will the commitments in 'Measuring progress' help organisations responsible for transport infrastructure in measuring progress on adaptation?

Yes

Measuring progress: agreement

Q27. Explain how the commitments will assist in measuring progress.

We agree on the fundamental importance of data in providing insights on climate adaptation and understanding what works.

We agree that outcomes from climate change adaption are difficult to separate out from other drivers of change. That said, it is possible to quantify, for example, how much rainfall a particular piece of green infrastructure has the capacity to absorb and volume diverted from sewers (preventing flooding), increases in street trees and planting and associated reductions in 'heat island' effects, the extent to which water run off has been cleaned and improved in quality as it passes through a rain garden or the increased presence of pollinators in an area.

Furthermore, there will be additional benefits that come with creating greener, more pleasant places that people enjoy spending time in and that promote good health.

To tackle issues as complex as climate change, a holistic approach is needed and we may need to become more comfortable with measuring overall outcomes without attempting to fully apportion these results to particular interventions. Many outcomes cannot be easily measured or monetised, but are nonetheless valuable. Revenue funding could be allocated to undertake different forms of evaluation, utilising qualitative as well as quantitative data.

Our members stand ready to share any data already captured on weather and climate related disruption and costs. Transport for London, for example has research available that measures the impact of high temperatures and extreme heat to delays on the London Underground and research on the benefits of its sustainable urban drainage pilots.

Regulatory: setting the long-term direction

Q29. Overall, do you support or oppose the actions in the strategy aimed at standardising the approach to climate adaptation?

Support

Adaption standards

Q31. What role, if any, would you like government to take in setting adaptation standards, including why?

We welcome proposed role for DfT in setting the framework and standards for approaching climate adaptation and supporting stakeholders to effectively navigate best practice and understand how to implement it. The strategy is right to identify the difficulties in setting standards without a detailed understanding of the existing asset base and current levels of resilience. For this reason standards should be developed in consultation and partnership with transport authorities and other affected stakeholders to ensure applicability in different areas without resorting to a lowest common denominator.

It should then be for local authorities to decide the most appropriate measures for their circumstances and go above and beyond national standards if needed (and resources allow).

We do not agree that it is for transport operators to identify the most appropriate warming scenario. It would seem right for Government at national level to determine what scenario is sensible to prepare for, based on the advice of experts such as the Climate Change Commission. In deciding the most appropriate scenario, consideration should be given to the need to minimise the need for further adaptations in future. This approach is more in line with the strategy's stated action to improve consistency of approach when using climate scenarios.

Reviewing the role of regulators

Q32. Do you support or oppose a review of transport regulators' remits regarding climate change adaptation?

Support

Reviewing the role of regulators: supporting

Q34. Provide your suggestions, if any, as to how this review should occur.

We support the review of regulators' remits regarding climate adaptation but anticipate that this would require significant capacity building.

Collaboration: sharing knowledge

Q35. Overall, in your view, will the actions in 'Working in partnership' support organisations responsible for transport infrastructure to expand their capability on climate change adaptation?

Yes

Working in partnership: agreement

Q36. Explain how the actions in this section will support organisations to expand their capability on adaptation.

We fully support the goal of bringing organisations together to collaborate on climate change adaptation. As organisations responsible for large parts of local transport infrastructure and operations, it is vital that Combined Authorities and transport authorities more widely are included in these conversations as key partners.

As noted in the document, Local Resilience Forums offer a good conduit for this work. Officers within our members would also find it helpful to meet with DfT and other authorities to share best practice and information. We will continue to convene our members to share good practice and approaches on climate change adaptation.

We welcome the recognition of the importance of interdependencies. It is important that collaboration operates across sectors, ensuring connections are made between other policy areas, such as energy and land-use planning.

As noted earlier in this response, capacity building around the skills needed for climate change adaptation would be valuable at all levels of an organisation as well as suppliers and contractors who would deliver adaptation measures on the ground.

The strategy suggests that by 2028, all transport infrastructure operators should provide training on climate adaptation. To improve consistency, quality and standards, and to avoid unnecessary duplication of effort, qualifications and learning programmes could be designed at national level to roll out locally.

The strategy is right to note that we have much to learn from our international counterparts, many of whom will have a wealth of experience in managing more extreme weather conditions. We suggest that UITP (the international association for public transport authorities, operators, policy makers, scientific institutes and the sector services and supply) be added to the list of forums from which to learn from.

Interdependencies

Q38. Overall, in your view, will the actions in the strategy help organisations to understand their interdependencies across different infrastructure?

Yes

Interdependencies: agreement

Q39. Explain how the actions will help understanding of interdependencies.

See answer to previous collaboration question.

Final comments

Q41. What, if any, further comments do you have on the transport adaptation strategy?

No further comments.

Q42. Any other comments?

Please do not hesitate to get in touch if we can be of any further assistance.