Clean Air Zones - Southampton
Introduction

Emissions from vehicles are a significant source of pollution in Southampton and other cities across the UK. This pollution can cause damage to the environment and is also harmful to human health. As such, it is right that central government and local authorities are taking action to reduce pollution in the cities of the UK.

One way which some cities have attempted to tackle this problem is through the introduction of clean air schemes. These schemes involve charging the drivers of certain types of vehicles for entering the city centre. The local authority at Southampton is considering implementing a similar scheme.

In this briefing note we consider the effectiveness of clean air zones, what their impact is likely to be on businesses and the public, and also alternative methods of reducing emissions.
Executive summary

Southampton is one of the most heavily polluted cities in the UK. Pollution from traffic does play a part in this, but it is not the only cause. Commercial activity, the airport, and the port also generate pollution.

Imposing financial penalties on taxi firms and bus and coach companies will have negative consequences. These added costs will be passed on to workers in the form of lower wages and decreased employment opportunities, and also onto passengers in the form of higher fares and lower quality services.

The effectiveness of clean air zones is unclear. The evidence would seem to suggest that they have no long term impact on the rate of firms upgrading to ‘cleaner’ vehicles. Their impact on reducing pollution is unclear, and there is evidence to suggest that they do not improve the health of residents.

The UK does have high levels of pollution which are damaging to the environment and can cause serious health problems and lead to premature mortality. However, clean air zones are not the answer.

One possible solution would be to tackle congestion which is very high in the UK due to a lack of investment in infrastructure. The government should scrap white elephants such as HS2 and spend that on improving the roads. This would reduce congestion and so tackle high levels of pollution in an effective way which is not economically harmful whilst also increasing productivity.

A further solution would be to tackle the pollution caused by ships at port. One way this could be achieved would be by introducing shore power.

The UK should also look to measures taken in cities such as Los Angeles and New York City, which have introduced schemes which have been successfully reduced emissions from vehicles.
The effectiveness of clean air zones

Do they encourage upgrading vehicles?

The evidence is ambiguous on this. For example, when a scheme was introduced in 2008, targeting lorries, buses, and other heavy vehicles, it did initially lead fleet operators to speed up replacing their vehicles.\(^1\)

However, after that the rate of renewal returned to the national average which would suggest it does not have a long term impact on vehicle replacement.\(^2\)

What about the impact on pollution?

Again, the evidence is ambiguous. For example, studies of low emission zones in Germany found significant reduction in particulate matter pollution.\(^3\)

A study looking at London reached a similar conclusion. It found that particulate matter pollution had fallen by between 2.5 per cent and 3.1 per cent, compared with one per cent outside the zone.\(^4\)

However, a study of a zone in the Netherlands found that it had not made a significant difference compared with areas without a zone.\(^5\)

The study in London also found that the clean air zone made ‘no discernible differences’ to Nitrogen Oxide concentrations.\(^6\)

What is the impact on health?

A study from King’s College London found that it made absolutely no difference in improving the health of children.\(^7\)

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The impact of clean air zones on businesses and the public

Charging bus and coach companies and taxi firms for entering Southampton city centre will increase costs for these businesses. However, as is the case with all taxes and levies, these are not ultimately paid by businesses. Increasing costs for businesses reduces their profitability, and so they are forced to pass these costs on to workers and consumers.

This could impact workers in the form of lower wages, a reduction in the number of hours worked, or fewer employment opportunities for people currently not in work.

As for the public, the cost will be passed on to the public in the form of a lower price of service or higher wages. Public transport such as buses and coaches are relied upon by poorer households, the elderly, and people with disabilities. The link between an inability to access affordable transport and an increase in poverty and inequality is well established. Therefore, the introduction of a clean air zone would be a regressive step.

Passing the extra costs onto passengers could also have a negative impact on other businesses operating in Southampton. For example, if fares are increased then it might deter passengers from visiting the city centre. It will certainly mean that consumers have less disposable income to spend. Southampton Football Club could be particularly vulnerable to this given the number of fans who travel to the ground by coach, as could the bars and pubs in the area.

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What should be done?

The emissions from vehicles can cause damage to human life and to the environment. As such, it is right that central government and local authorities are attempting to reduce emissions. Moreover, Southampton is one of the most polluted cities in the UK.

However, clean air zones have been shown to be ineffective, economically damaging, and regressive. What is more, vehicles emissions are not the only source of pollution. Southampton also has an airport, heavy industries, and a port.

One possible solution would be to tackle congestion which is very high in the UK due to a lack of investment in infrastructure. The government should scrap white elephants such as HS2 and spend that on improving the roads. This would reduce congestion and so tackle high levels of pollution.

The local authority could also invest in shore power. Ships at port consumer large amounts of energy and so pollute the local area. Shore power allows vessels to draw power from land based power supplies instead of their own generators. There is a great deal of evidence which suggests that using shore power lowers emissions of harmful substances such as particulate matter and oxides of Nitrogen in a cost effective way. This has resulted in fewer premature deaths and a reduction in sick days.

Central government and local authorities should also look to the rest of the world for inspiration in tackling harmful emissions. For example, in 2009 New York City introduced and anti-idling law. Anyone inside specific zones who leave their engines running for longer than three minutes will be fined. This is even stricter around schools, where the time allowed is one minute. Fines ranges from $100 to $2000.

Los Angeles had tackled congestion by attempting to tackle the problem of drivers finding a place to park their vehicles. It introduced a system of demand-based parking that adjusts prices based on real time occupancy data. After the introduction of the scheme, congestions caused by drivers searching for a space reduced by 30 per cent.

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17 Centre for Cities, How can UK cities clean up the air we breathe? Lessons from cities taking action to reduce roadside emissions, January 2018.
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Conclusion

Emissions from vehicles can cause damage to the environment and are also detrimental to human health and wellbeing. Therefore, it is welcome news that central government and local authorities are taking the problem seriously.

However, it would be wrong for Southampton’s local authority to introduce a clean air zone. This is because they are ineffective, economically harmful, and regressive.

The government should scrap white elephants such as HS2 and instead invest that money in improving the roads around and into Southampton which would reduce congestions and, therefore, cut pollution. The local authority should consider introducing shore power in order to reduce pollution from vessels in the port. It should also look to other cities around the world in order to replicate schemes which have successfully reduced pollution in city centres.
References


Centre for Cities, *How can UK cities clean up the air we breathe? Lessons from cities taking action to reduce roadside emissions*, January 2018.


