THE HARMS OF SUV USE IN SCOTTISH CITIES

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Introduction

The growth in number of Sports Utility Vehicles (SUVs) across Scotland, the rest of the UK[1], and elsewhere, has been termed an "arms race", leading to larger and more powerful vehicles which reduce safety and increase fuel consumption.[2] Although there is no commonly agreed-upon definition of an SUV, and usage of the term varies between countries, we will define SUVs as a car classification that blends features of passenger cars with those of off-road vehicles, such as raised ground clearance and four-wheel drive.[3] They are larger and heavier than traditional cars, occupy more space on urban streets, contributing to increased safety risks for pedestrians, cyclists and other drivers, as well as greater environmental impacts due to higher fuel consumption and resource requirements.

By spring 2025, around 4.6 million cars had been sold in the UK which were bigger than a typical urban car parking space – more than 1.2 million a year since 2021, with numbers growing.[4] In 2018, SUVs accounted for 21.2% of new car sales, three times their share a decade earlier and up from 13.5% just three years prior.[5] In 2019 the UK Energy Research Centre stated that immediate action was required to counter the rapid increase in sales of larger cars (including SUVs) on carbon emissions grounds. SUV numbers have continued to grow since then, reflecting a global trend. In 2024 the International Energy Agency[6] reported that:

"SUVs accounted for 48% of global car sales in 2023, reaching a new record and further strengthening the defining automobile trend of the early 21st century – the shift towards ever larger and heavier cars."

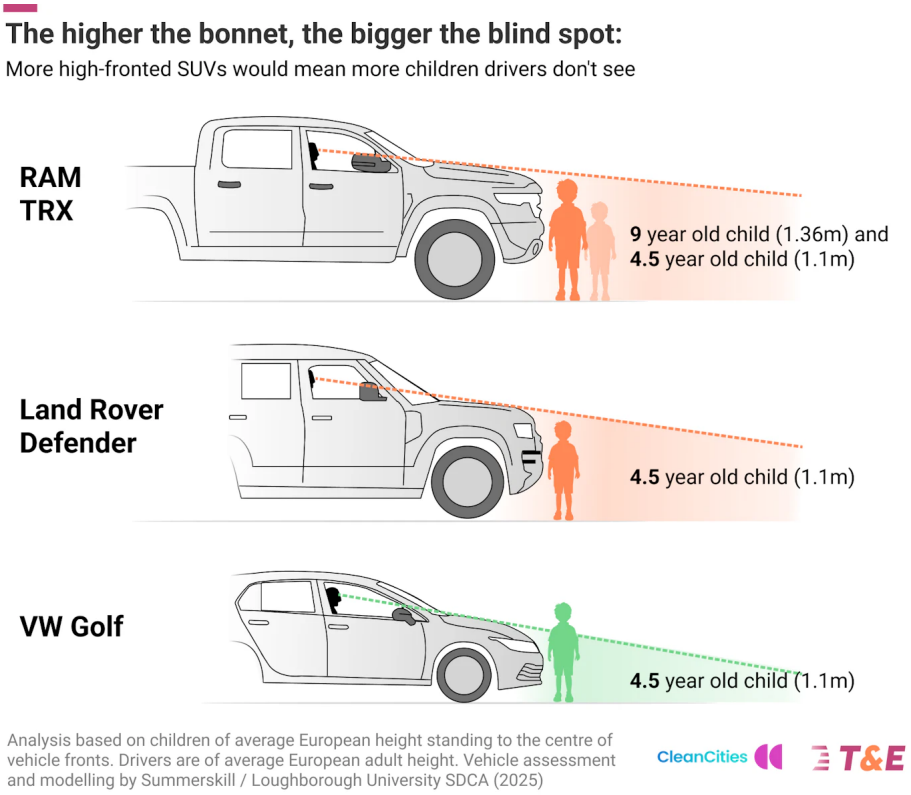
Public health and safety

In a crash, a vehicle moving faster or possessing more mass will exert a greater force than a smaller, slower vehicle, meaning an SUV will exert a larger force on collision when compared to a lower weight car travelling at the same speed.

In addition, SUV vehicle front-end profiles, tall and blunt or sloped, are associated with increased pedestrian fatalities.[7] Children face the most acute risks, being eight times more likely to die when struck by a SUV compared to a passenger car.[8] A study of reported vehicle crashes on cyclists showed that:

- SUVs inflicted significantly more severe injuries on struck cyclists compared with cars
- The typical head injury inflicted by SUVs was 63% more severe than that inflicted by cars
- SUV collisions were more likely than passenger cars to involve cyclists being injured[9]

The average bonnet height of new cars is increasing by half a centimetre (0.5 cm) a year, reaching 83.8 cm in 2024, up from 76.9 cm in 2010, according to analysis of new registrations in the EU, the UK and Norway.[10] A 10 cm increase in the front-end height of a vehicle increases the risk of pedestrian death by 22%.[11] When high-fronted SUVs and pick-up trucks crash into regular cars, the higher-bonneted vehicles also pose a 20-50% greater risk of serious injuries on the occupants of regular cars.[12]



Specifically looking at the impact on pedestrians and cyclists combined, the odds of fatality when hit by an SUV or Light Truck vehicles as opposed to a passenger car are 44% higher for adults and 82% higher for children.[13]

There are a multitude of wider public health impacts from SUV use. As well as exhaust emissions, the production of bigger cars is also more resource-intensive and the mass of vehicles is strongly correlated to the wearing of tyres and brake pads. Production is even more intensive in the manufacturing of Electric Vehicles, which require the exploitation of materials with a high environmental footprint like lithium and cobalt for batteries, resulting in habitat destruction, water pollution, and exploitative labour practices. Therefore, the enlargement of vehicles also enlarges the negative upstream environmental and social externalities of production.[14]

Inequality and public space

In the UK, roads are typically designed for use by specialist vehicles such as emergency vehicles, buses, and Heavy Goods Vehicles. However, the higher the percentage of wider vehicles on the road, the less space there is.[15] This has an intimidating effect on pedestrians and other vulnerable road users.

Cars in the UK are growing too big for British roads, exceeding the 180cm minimum for on-street parking. On average cars were found to be getting 1cm wider every two years.[16] This can also lead to increased congestion as vehicles from one direction increasingly need to wait or else inch forward to negotiate oncoming vehicles especially if either are SUV width. As cities try to prioritise active travel and boost green areas for better adaptation to climate change, this trend represents a serious hindrance.

In terms of equity, the market segment of heavier and bigger cars caters to higher-income groups. The industry's focus on this segment comes at the expense of lighter and cheaper models, which would be accessible to a wider section of society.[17]

Infrastructure costs

The greater weight of SUVs means that there is more wear and tear to highway infrastructure, not least road surfaces. A vehicle's damage to the road is related to its axle weight to the power four (2 to the 4th power as much) so that an SUV that is twice the weight of a regular car will do roughly 16 times more damage to the carriageway.

In a YouGov poll, when asked how the money raised from additional charges on SUVs be spent, the most popular measures amongst car owners were to fix potholes (54%) on Britain's roads, followed by safer roads (40%) and better public transport (36%).[18]

Climate and environment

SUVs emit about a quarter more CO2 than medium-size cars and nearly four times more than a medium sized battery EV.[19] Between 2015 and 2019, SUVs in the UK outsold Battery Electric Vehicles at a 37:1 ratio. Assuming the majority of these will be on our roads for at least a decade, the UKERC estimates the extra cumulative emissions to total around 8.2 million tons of CO2.[20]

If SUVs were a country, they'd be the 5th largest emitter of CO2.[21] Without robust interventions, SUVs could undermine the UK's efforts to meet climate commitments, emphasising the need for cohesive policies that balance technology, behaviour and fiscal instruments.[22] Scottish car registrations with CO2 emissions 171g/km or higher (like the rest of the UK) now make up a much greater percentage of the new car fleet compared to a decade ago.[23]

Positive action

France is the leading example of a country that varies Vehicle Registration Tax by weight. At the municipal level, four cities in France (Bordeaux, Grenoble, Lyon, and Paris), four in Germany (Aachen, Cologne, Koblenz, and Tübingen) and a London borough (Haringey) are among those that have made parking charges fairer by linking them to vehicle weight or size. In 2024, Parisians voted to triple parking costs for SUVs, as the city aims to tackle air pollution and climate breakdown by targeting rich drivers in heavy, large and polluting cars.[24] Also in 2024, both the City of Edinburgh Council[25] and Sheffield City Councils[26] revised their Advertising and Sponsorship Policy to ban advertising of high carbon products which includes SUVs. The Dutch capital city of The Hague has acted similarly.[27] In October 2025, Cardiff became the first UK city to agree to charge owners of SUVs weighing over 2.4 tonnes more for residential parking permits than for smaller vehicles, and those with cars weighing more than 3,500kg will not be eligible for the permit.

In terms of disincentives for the purchase of SUVs, in the UK, as of 6 April 2025, anyone who owns or leases a double cab pick-up truck – i.e. a truck that can carry the driver plus four passengers – will be paying more tax. HMRC has re-classified a double cab pick-up truck as a car, rather than a commercial vehicle. Commercial vehicles enjoy certain advantages, like a flat, lower rate of benefit in kind (BIK) deductions for employees. Now, a pick-up truck, classified as a car, means paying the highest rate of BIK at 37%, as well as lower capital allowances in terms of offsetting the cost of the vehicle against profits. The rules changed because, as HMRC stated: "typically these vehicles are equally suited to convey passengers and goods and have no predominant suitability".[28]

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