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How cities are clamping down on cars

By Francesca Perry *29th April 2020*

Cities around the world are seeing dwindling numbers of fossil-fuel powered cars on their streets during lockdown, and many are planning to keep it that way.

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As global lockdowns keep most people at home, congestion-riddled, pollution-choked streets around the world have transformed into empty, eerily silent spaces. The most conspicuous absentee is the car, as personal vehicles remain parked in driveways and side streets.

This lack of cars has contributed to a sudden drop in emissions of carbon dioxide, pollutants like nitrogen dioxide and fine particulate matter. Its effect on oil prices has been not so much a drop as an **implosion**. Some cities have temporarily turned emptier streets into walking and cycling-only zones to enable socially distanced exercise. Meanwhile, Milan – the epicentre of Italy's coronavirus outbreak – **announced it would transform** 35km (21.7 miles) of its streets for cycling post-lockdown. Could this pandemic, a global emergency, actually catalyse an ongoing movement towards cleaner air – and might Milan's scheme form a blueprint for cities that have repeatedly tried to tackle the domination of the car?

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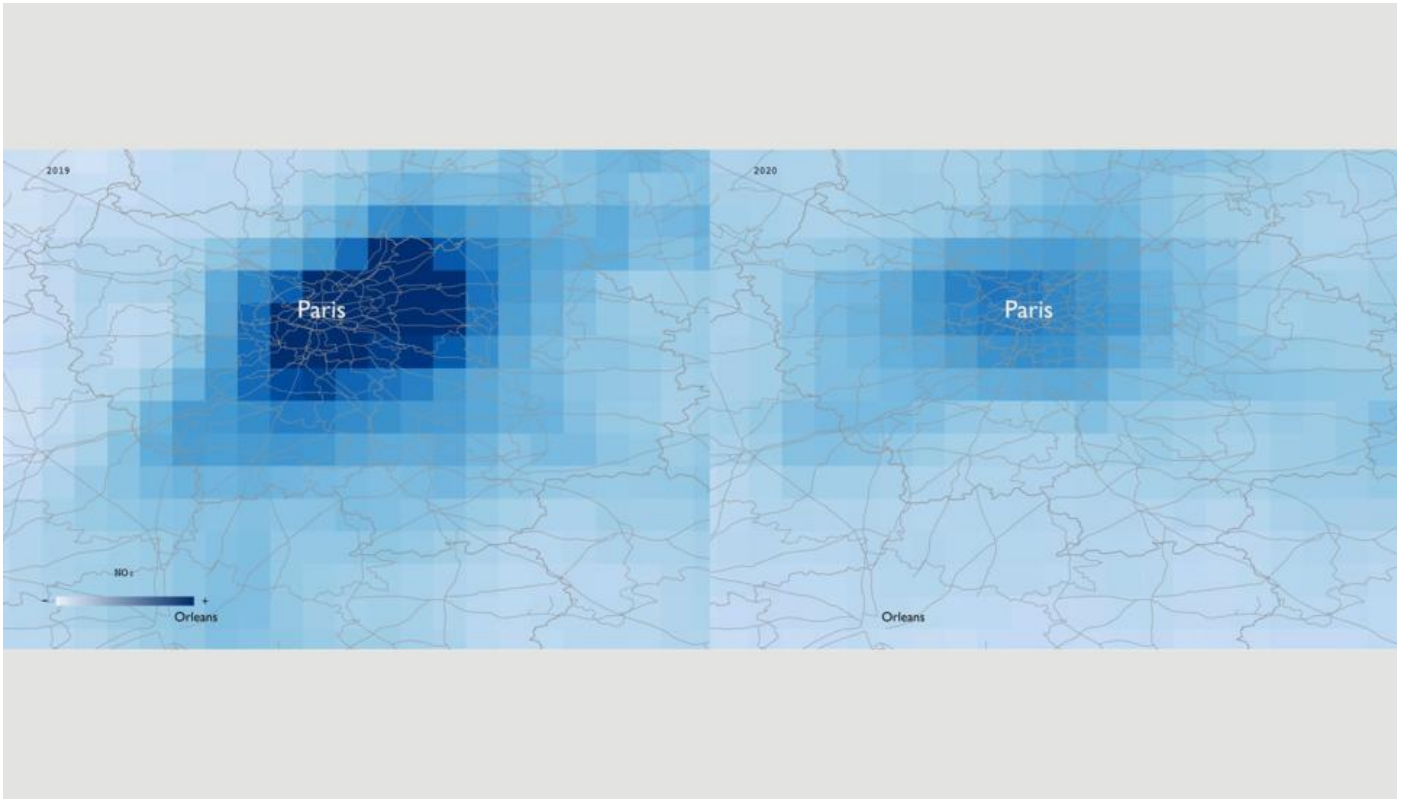
The pandemic's **impact on the environment** has been staggering. Carbon emissions from the burning of fossil fuels are heading for a **record 5.5-5.7% annual drop**. From mid-January to mid-February, China's carbon emissions **fell by around 25%**. In Delhi, a city with often the worst air quality in the world, pollution caused by PM2.5s **reduced by roughly 75%** as traffic congestion **dropped by 59%**. A 70% reduction in toxic nitrogen oxides **was reported** in Paris, while satellite imagery **showed** nitrogen dioxide levels in Milan fell by about 40%. In the UK, road travel has decreased **by as much as 73%** and in London, toxic emissions at major roads and junctions **fell by almost 50%**.

Although car use has decreased, so has public transport use. Services have been reduced, the need for travel has declined, and a public fear of using it has grown, now that proximity to strangers has become synonymous with infection risk. Some Chinese cities, including Wuhan – where the coronavirus outbreak began – shut down public transport entirely to reduce risk of contagion. The urban mobility app Moovit **reported** that public transport ridership has dropped on average by 78% worldwide, with Milan and Rome, for example, seeing a decrease of 89%.



Images from the European Space Agency show NO2 emissions in Paris in March 2020 were down significantly compared with the same period in 2019 (Credit: Reuters)

Where car, bus and train journeys have been dwindling, bicycles have been picking up the slack. As a form of isolated transport that doubles as exercise – that is much easier given the wealth of empty streets – cycling has become more appealing in a number of cities. In March, use of bike-share systems increased **by roughly 150%** in Beijing and **67% in New York**, where cycling on main thoroughfares increased by 52%. Meanwhile, cycling traffic **increased by 151%** on trails in Philadelphia and in April Dundee saw cycling traffic increase **by 94%**.

> *Cities that seize this moment to make it easier for people to walk, bike and take public transport will prosper after this pandemic and not simply recover from it – Janette Sadik-Khan*

To accommodate streets now busier with bikes, as well as facilitate social distancing, some places have installed temporary cycle lanes or closed streets to cars. Pop-up bike lanes have appeared in cities including Berlin, Budapest, Mexico City, New York, Dublin and Bogotá. Governments from **New Zealand** to **Scotland** have made funding available for temporary cycle lanes and walkways amid the pandemic. In Brussels, the entire city core **will become a priority zone** for cyclists and pedestrians from early May for the

forseeable future. Meanwhile, temporary street closures to cars have taken place in Brighton, Bogotá, Cologne, Vancouver and Sydney as well as multiple US cities including Boston, Denver and Oakland. In England, **restrictions have been lifted** to enable and encourage councils to more quickly close streets to cars.

But these, of course, are temporary measures. What will happen as lockdowns are lifted?

There are widespread concerns that as travel resumes, people will avoid public transport amid continuing fears of the virus and instead turn to private cars, clogging roads and causing pollution, perhaps even more so than before. Chinese cities, including Beijing and Shanghai, **are already seeing this happen**. **(*Read more about how air pollution exacerbates Covid-19.*)**

The easing of lockdowns has not meant a flood of people returning to public transport in China, where many stations remain quiet (Credit: Getty Images)

It is with this in mind that Milan announced its plan to make changes in the wake of the pandemic that support alternatives to driving. “In order to prevent an excessive use of private cars, with the consequent increase in air pollution, the city of Milan will encourage the use of bicycles,” **its announcement states**. As travel restrictions are lifted, the government will begin construction on the cycle lanes – all of which take space away from cars – alongside implementing reduced speed limits and widened pavements.

This is far from a ban on cars, but it does suggest a shift towards more sustainable forms of transport in the long term, catalysed by the pandemic. So could other cities follow suit?

Janette Sadik-Khan, a former transportation commissioner for New York City and principal with Bloomberg Associates, is working with Milan and other cities on their "transport recovery" programmes. "The pandemic challenges us, but it also offers a once-in-a-lifetime chance to change course and repair the damage from a century of car-focused streets," she says. "Cities that seize this moment to reallocate space on their streets to make it easier for people to walk, bike and take public transport will prosper after this pandemic and not simply recover from it."

In the Colombian city of Bogotá, mayor Claudia López closed 117km (72.7 miles) of streets to cars in order to make cycling and walking easier during the coronavirus lockdown. Though these streets are typically closed every Sunday – in **the long-running, pro-cycling initiative Ciclovía** – Lopez has extended the closure throughout weekdays too, as well as added 80km (49.7 miles) of cycle lanes to the city's existing network of 550km (341.7 miles).

The mayor of Bogotá, Claudia López, has extended closures of streets to cars and opened additional cycle routes during lockdown (Credit: Getty Images)

"Covid-19 safety now piles up with all the other advantages to cycling in Bogotá, and we are exploring other measures, in addition to new cycle lanes, that should increase not

only infrastructure but also access to bicycles and other safe and clean transportation alternatives," explains Bogotá's environment secretary Carolina Urrutia Vásquez. "Hopefully these will remain primary transportation choices, as well as 'last mile' alternatives, past the current crisis."

> *We have the opportunity to see what would our cities look like when we are designing for people, not cars – Samu Balogh*

In Paris, where mayor Anne Hidalgo's Plan Vélo **had already promised** to make every street cycle-friendly by 2024 and remove 72% of Paris's on-street car parking spaces, a post-lockdown **plan was announced** that includes creating temporary cycle lanes following metro line routes, for those hesitant to return to public transport. The planned construction of permanent cycle highways has also been accelerated in response to the crisis.

At the national level, Pierre Serne – president of cycling association Club des Villes et Territoires Cyclables – was asked by French minister Élisabeth Borne to coordinate a sustainable post-lockdown mobility plan. "We anticipate a lot of people will chose cycling instead of public transportation," says Serne. "It could potentially mean millions of new bikes in streets and therefore we have to be able to provide adequate facilities. If we failed, the only alternative might be millions more cars and that would be a nightmare in terms of pollution and congestion. I am willing (and rather confident) to see these temporary measures become permanent because, pandemic or not, cycling is one of the cleanest and healthiest ways to move, especially in urban areas."

In Budapest, new temporary cycle lanes are due to last until September – but maybe further. "We are constantly monitoring the use of the temporary bike lanes, and we are hoping that a good many of them could remain in place," says Samu Balogh, the mayor's chief of staff. "The pandemic has changed transport globally… We have the opportunity to see what would our cities look like when we are designing for people, not cars." Such thinking builds upon existing efforts from the city to eliminate road deaths, which includes decreasing car numbers and lowering speed limits.

"In the long term we are working towards implementing traffic-calming measures and new bike lanes so we can create a more inviting environment for cycling and walking," says Balogh.

Rare sights like blue skies in Delhi have shown that "dramatic change is indeed possible," says the World Resources Institute's Claudia Adriazola-Steil (Credit: Getty Images)

In the UK, London mayor Sadiq Khan **has made clear** that the capital's cleaner air should not be temporary and that the ongoing challenge is to "eradicate air pollution permanently". Xavier Brice, chief executive of the walking and cycling charity Sustrans, believes the country's recovery "can be a catalyst for positive, long-lasting change in the way we live and move around" and hopes that temporary cycling and walking measures – which Sustrans lobbied for – "inform future road space planning, after lockdown is lifted".

> *The future will be very different, and I'm convinced it will be much more local – Shannon Lawrence*

It seems this may take effect in Manchester. "When restrictions are lifted, rather than returning to business as usual, we need to take the opportunity to see how we can support more people to choose to walk or cycle, instead of travel by car," says city councillor Angeliki Stogia, who leads Manchester's environment, planning and transport strategy. There are also developments at the national level, as the government's recently published **De-Carbonising Transport report** outlines a strategy for reducing car use in order **to tackle climate change**, in line with the country's commitment to achieve net zero greenhouse gas emissions by 2050. It has also

committed to ban the sale of new petrol, diesel or hybrid cars in the UK from 2035 to help achieve this.

Which brings up an important point: it is petrol and diesel cars, rather than **electric vehicles** (EVs) that contribute to carbon emissions and toxic air in cities. Electric vehicles have steadily increased in popularity over the last decade: BloombergNEF reported in 2019 that **more than two million EVs were sold in 2018**, up from just a few thousand in 2010. It predicts sales will rise to 56 million by 2040. But EVs are not problem-free: they are expensive, require sufficient and widespread charging facilities, and still contribute to congestion on city streets. In a low-carbon future, however, electric cars – especially those that are shared – could form one part of a multi-modal transport infrastructure.

So in these cities' efforts to ensure healthier air, outright bans on cars don't feature as a core approach. But, if their plans are successful, combustion-engine cars may well become a rarer sight.

The approach in many cities has not been to ban the conventional combustion-engine car, but to make healthier and more sustainable options more convenient (Credit: Getty Images)

It's hard to say what will happen next, especially as we don't know when "next" will be. But the sudden drop in pollution and improvement of air quality around the world has been a wake-up call, not least in light of **studies showing that pollution makes Covid-19 more deadly** and **could even contribute to the spread of the virus**. The coronavirus

pandemic struck at a time of climate emergency, an emergency caused in part by the huge amount of greenhouse gas emissions released into the atmosphere – much of which comes from cars. This pandemic may have inadvertently triggered an environmental reprieve, but it has not stopped climate change.

On 22 April, Earth Day catalysed calls for the current crisis to be a turning point in our relationship with nature. “We must act decisively to protect our planet from both the coronavirus and the existential threat of climate disruption," says UN Secretary General António Guterres. "We need to turn the recovery into a real opportunity to do things right for the future.” Just like viruses, he noted, greenhouse gases do not respect national boundaries either.

Tackling air pollution and climate degradation is high on the list for the new **Global Mayors Covid-19 Recovery Task Force**, coordinated by C40 Cities, which sees mayors worldwide collaborate to achieve a climate-friendly economic recovery from the pandemic. “The future will be very different, and I’m convinced it will be much more local – more cycle deliveries, more working from home and more school runs made by bike or walking,” says Shannon Lawrence, C40’s director of global initiatives. “All of which means fewer cars on the road, which in turn means improved air quality, better public health and a major contribution to tackling the climate crisis.”

> *This Covid-19 crisis is allowing us a glimpse of what a changed world looks like with far fewer cars and much cleaner air – Claudia Adriazola-Steil*

Implementing restrictions on cars has different practical and political limitations around the world, however. In places like Milan, Bogotá and Paris, there have long been bottom-up and top-down efforts towards more sustainable mobility – from **car-free days** to successful bike-share systems. Change is perhaps easier in these places, although not simple.

“Space is of course political, and so supporting and ensuring sufficient space for non-motorised transport and the spectrum of users who have livelihoods dependent on space(s) is crucial,” says Rashiq Fataar, chief executive of Cape Town-based NGO Our Future Cities, which works with cities across the African continent. “Transport options which are safe, clean, less crowded and more efficient should be the benchmark, but transport planning must begin to see itself as part of a system providing economic and social ‘access’ in our cities.”

Indeed, a decline in car use cannot be expected unless people have efficient, accessible and affordable alternative options. But as Fataar points out, mobility is linked to every aspect of life in cities, and a change in car use may only be possible if issues around

housing, public services and work culture are addressed too. Such huge volumes of commuting, for instance, may not be necessary if working from home is made easier, services are more equally distributed geographically or people can afford to live within walking distance of their work.

Policy and behaviour change may take a long time, but there exists a building momentum across the world that recognises car-free streets as a critical way of tackling the urgent climate crisis, as well as a strategy to improve health and wellbeing. This pandemic has resulted in countless forced changes to our lifestyles, economies and environments. Seeing what's possible can lead to change – the question is how to ensure the change resulting from this global emergency improves health for people and planet.

We are a long way off from the demise of the car, but as the world seeks to recover from the collective trauma of the Covid-19 pandemic, perhaps the willingness to tackle another deadly emergency – outdoor air pollution causes **4.2 million deaths per year** – will get stronger.

"This Covid-19 crisis is allowing us a glimpse of what a changed world looks like with far fewer cars and much cleaner air," says Claudia Adriazola-Steil, deputy director of the Urban Mobility Program at the World Resources Institute. "Dramatic change is indeed possible."

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