# Why number plate-based bans are odd, even existing tech can do better!

Delhi has a huge problem. Every winter, people realize they are breathing the equivalent of 50 cigarettes a day. However, as soon as the smog clears, so does the issue. Every year, policymakers find and announce quick fixes that demonstrate the government's resolve to do something about pollution. Since crop burning and dust storms are not immediately addressable, all the focus turns to vehicular pollution. This year, the National Green Tribunal (NGT) is ordering measures such as banning road-side parking and the retiring of old cars. Odd-Even road rationing was suggested, diluted with exceptions and then scrapped.

Such quick fixes may even be effective, but will only remain under the glare of the media. They are not sustainable. Recently, I wrote about 'policy windows', and how demonetisation led to the permanent unblocking of regulatory hurdles to a less-cash economy. Even though we have a similar crisis at hand, those in charge are unable to find a way to move the needle forward significantly. This is surprising, because the infrastructure to do this already exists!

The FASTag, launched by the Indian Highways Management Co. Ltd (IHMCL) in 2014, is a way to collect tolls electronically. Each car gets a radio-frequency identification (RFID) tag that is based on an open standard. This means the RFID readers are cheap, inter-operable and not locked in to any particular vendor. The transaction switch is managed by the National Payments Corp. of India (NPCI). When fully implemented, we will be the only country with a nation-wide inter-operable electronic toll collection (ETC) system. The ministry of road transport and highways and the National Highways Authority of India have been doing a great job of installing these RFID tags without much fanfare since 2014. Of the four million vehicles plying on highways daily 600,000 have RFID tags. From 1 December, every new car will come pre-installed with a FASTag.

At first glance, FASTag may seem useful only for automating toll collection. In reality, the architecture of the FASTag is very versatile. Each car gets a unique ID, and is linked to a bank account/wallet. Money is deducted based on the event that has happened, like passing a toll booth. There are at least five ways in which the FASTag platform can help Delhi's vehicular problem.

First, FASTags can implement congestion pricing. This is a model perfected by London and Singapore. Delhi, especially, with the subcontinent's most extensive metro network, and yet the third highest density of cars (424 cars per 1,000 people), needs congestion pricing. The pricing itself can be dynamic to affect demand.

Second, the same FASTags can enable the government to have lower congestion pricing for those who are pooling to work. The government does not even have to create its own ride-sharing app, it has to simply provide application programmatic interfaces (APIs) to legitimate ride-sharing app providers.

Third, these tags can regulate parking, while simultaneously creating a revenue opportunity for cities. FASTags can ensure that a no-parking sign is not just a warning, but a serious penalty for those looking to park illegally. Individuals and businesses can 'switch on' temporary parking spaces during peak hours.

Fourth, the FASTag readers can also be used to implement many of the policy recommendations of the NGT that are otherwise difficult to implement. Pollution Under Control Certificates (PUC) can be linked to the FASTag accounts, and a tag without a valid PUC can be fined automatically when it crosses a reader. The government can run experiments like it did with Odd-Even last year and then quickly scale them up if needed in an automated way.

Fifth, and the most important, all of these problems are really difficult to solve because the government lacks granular traffic data needed to make better decisions. Every decision from the width of the flyover, to the timing between red lights needs better quality data.

Companies like Uber and Google are able to figure it out by tracking which cell tower your phone connects to and tracking your phone's global positioning system (GPS). Right now, an engineer in San Francisco has a much better idea of traffic movement in Delhi than the officials whose job it is to design roads.

With a trusted implementation of FASTag readers, the government can get such anonymized data directly from the ground. Basically, an invisible toll booth that doesn't collect a toll but captures every time any car crosses it. This data can be immensely powerful when used correctly.

Tomorrow, our smart cities can have smart traffic lights that don't stay red a second longer than is optimal. The possibilities of this system are endless, but we need to push collectively to make it happen. Policymakers need to act now, before the policy window closes. Because when the smog finally dissipates, so will the political will to solve the issue, but the problem will still hang in the air. Till next winter!

*Nandan Nilekani is chairman of Infosys Ltd and former chairman of Unique Identification Authority of India.*