

CITY

Every day, I commute to Farmgate for work from Uttara, a distance of 17 kilometres which Google Maps assures me will take around 44 minutes by the fastest route, demarcated by a blue line snaking north-to-south down Dhaka city. It usually takes me an hour-and-a-half—a good day is a breezy 60 minutes and a particularly bad day can mean over two and a half hours of sitting in a bus to get to work.

In Dhaka, a mega-city of around 18 million people, traffic is a constant, noisy and polluting problem which a recent World Bank analysis found eats up 3.2 million working hours per day. In the last 10 years, the average traffic speed has crawled down from 21 km/hour to a meager 7 km/hour, which is barely more than average walking speed.

Public initiatives to manage traffic have barely succeeded over the years. Commuters' only recourse now is using technology to circumvent busy routes and optimise their travel times in Dhaka's inherently unpredictable traffic.

### Why are traffic apps failing in Dhaka?

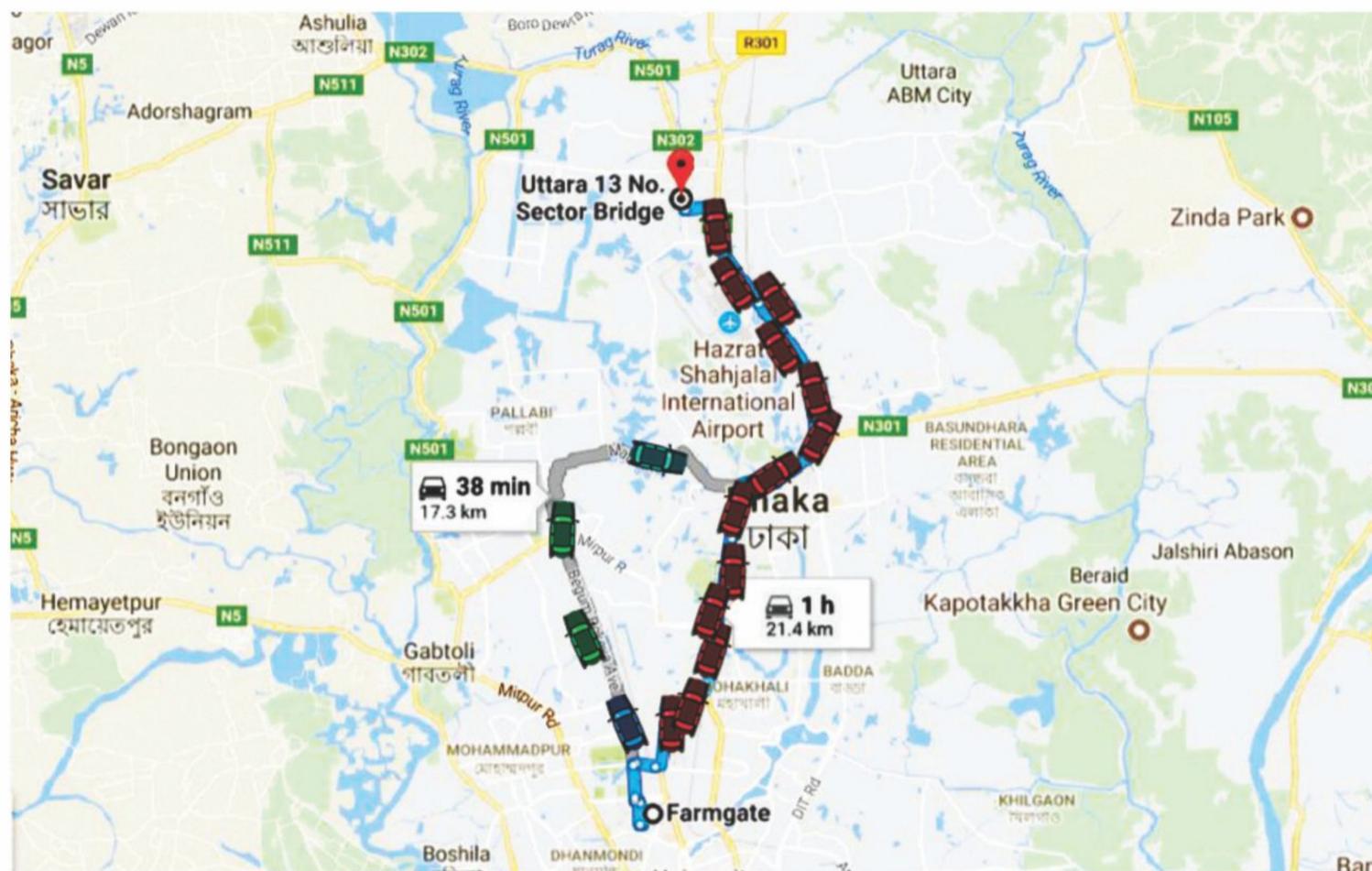
Private initiatives have mushroomed in recent years to address the traffic commuters face on Dhaka's roads. Traffic apps have emerged on the scene but, for some reason, run out of steam soon after.

According to Farhan Rahman, one of the three co-founders of GObd which launched the GO! Traffic Beta app, the end goal was never just to have a traffic app. "Through the app, we aimed to disseminate traffic information to a large number of people so that they could make better decisions," says Rahman. This information could also then prove beneficial for business purposes, which GObd is now employing through the business logistics-providing service GO! Fetch.

At its peak, GO! Traffic had 150,000 actively monthly users across all platforms. Initially, it deployed team members to monitor traffic on the roads but soon become fully automated to provide real-time traffic information to users with colour-coded routes depending on the level of traffic. The app also crowdsourced data from users posting on their Facebook page, using key words such as "heavy", "moderate" and "low". The app saw upwards of 60 percent accuracy in predicting travel time of users in vehicles. Initially, the app used Google Maps but soon switched to the more cost-effective OpenStreetMap.

Other apps such as rastaRObosta (no longer active), similarly crowdsourced data but in a more collaborative manner. Users first gave an update on the state of the roads in their immediate vicinity before they could access traffic updates on other roads. Traffic was described humorously and in colour—for example "Hudai Pera" in light orange and "Polti Mar" in red.

Traffic Alert, a Facebook page, runs on the same principle of crowdsourcing. It relies on users to post on roads they are on at the time and pinpoint locations where there is traffic. Queries however often go unanswered for some time and traffic is dynamic, so updates can quickly become irrelevant.



# TRAFFIC ALERT FAILS

Why apps are unable to map Dhaka's traffic

MALIHA KHAN

"The problem with crowdsourcing is that it can give rise to inaccurate data. Traffic updates on Facebook are also subjective to user experiences—what is heavy traffic for me may not be so for you," says Rahman.

Another challenge is the apps themselves. Rahman is the first to admit that GObd's app was bloated, incurring high data usage and draining battery. He however, hopes that when they re-launch the GO! Traffic app, it will be more robust and user-friendly.

Poor financial viability is another key reason behind traffic apps failing to get a foothold in Dhaka city. GO! Traffic, like other apps that tried to get off the ground, was free. While this is convenient for users, it is not sustainable for the app creators. Right now, GO! Traffic is inactive as the makers concentrate on improving the app interface and fundraising. Monetising the app, though financially viable, usually leads to a downturn in users.

Government support is also not forthcoming. Dhaka Metropolitan Police was reluctant to cooperate with GObd as traffic management was under their jurisdiction and it deemed the technology a security risk for VIP movement. Which is why from the beginning, cameras to monitor traffic real-time was not an option for GObd, according to Rahman.

"Government support is absolutely necessary because this is a needed service. We know that people benefited from it," insists Rahman. When public initiatives are not forthcoming, is it not the government's duty to encourage private initiatives improving the traffic experience for commuters?

### Mapping Dhaka

Traffic apps have been made possible as more and more areas were digitally mapped. Urban coverage is visibly greater than in other parts of the country.

Mapping Bangladesh, a community of mappers and 12 moderators, contributes to Google Maps using local knowledge. The mappers work on a voluntary basis by adding updates and corrections to maps of Dhaka and the rest of Bangladesh.

In Dhaka city, Google Maps predicts travel times for vehicular movement based on a number of data sources, including likely speeds and actual travel times for previous users. However, Google Maps is yet to monitor real-time traffic information in Dhaka and give traffic alerts and alternative routes from gridlocked areas as it does in other Asian cities such as New Delhi and Jakarta.

Hasan Shahed, 45, whose day job is at a Dhaka-based shipping company, was recognised by Google Maps for his mapping contributions and was made a regional expert reviewer (RER). "Google themselves approached me because I had achieved up to 90 percent accuracy in my mapping. Now as a RER, I review and edit contributions by mappers around Bangladesh before these are published on Google Maps," says Shahed.

Shahed had no prior training and learnt to use Google Map Maker (and now directly Google Maps) on his own. However, in order to map all of Bangladesh as soon as possible, government support is needed. "The government needs to take the initiative to formalise the relationship with us [the mappers]. They should support us because their agencies, such as RAB, are using Google Maps to track phones for example," says Shahed.

Mappers working to make even remote parts of Bangladesh accessible have seen success. However, the most urgent application of digital cartography in Dhaka's case, improving traffic, has hit a roadblock. Traffic apps have failed to sustain operations and see a long-term impact in mapping traffic for commuters' use. ■