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Mexico City and the Pesero Horde

Mexico City

Mexico City is one of the largest and wealthiest cities in the world. But it is also incredibly vulnerable. It is susceptible to earthquakes, flood and rockslides; has outdated infrastructure; and has employment and inequality challenges. With the help of The Rockefeller Foundation, they are hoping to address these isues.

Rockefeller’s 100 Resilient Cities Model

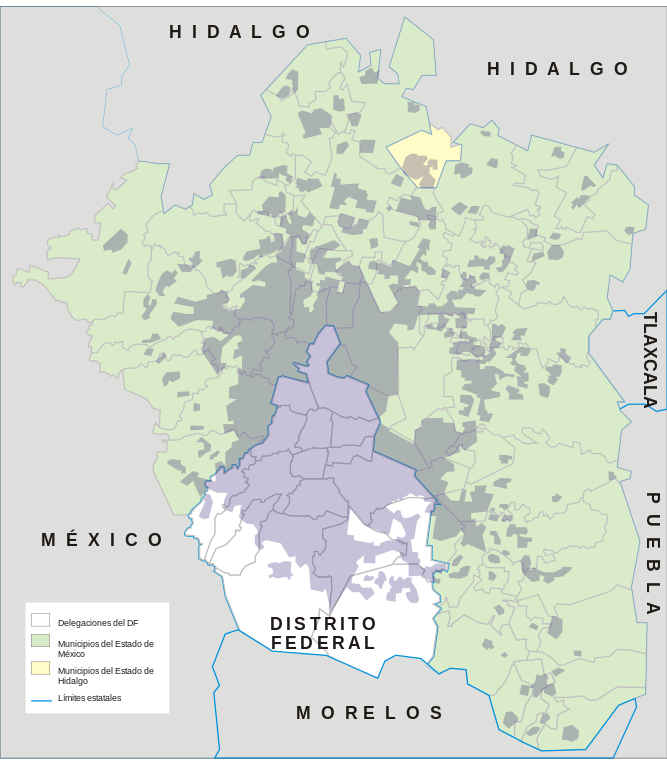
The Rockefeller Foundation’s 100 Resilience Cities program (100RC) has the goal of supporting the resilience efforts of 100 cities across the world, 67 of which have already been chosen. 100RC defines resilience as a city’s ability to survive and grow in the face of not just disasters, but chronic everyday stresses on the city. Rockefeller picks cities of course based on the resilience challenges they face, but as important is that cities have demonstrated the ability to innovate, work with a wide range of stakeholders and engage in partnership with other cities.

Rockefeller assists each of the cities in a few ways. First, they fund the creation of a new position in the city government called the Chief Resilience Officer (CRO). The CRO is responsible for leading the creation of the city’s resilience strategy and coordinating all of the players across different parts of government in realizing that strategy[[1]](#footnote-1). While each city differs in its challenges and goals, 100RC has a framework to help cities think about how to develop their own resilience strategy[[2]](#footnote-2). 100RC also hopes to bring together the cities so they can share knowledge and expertise, as well as build a platform of private, non-profit and academic partners to facilitate that knowledge sharing[[3]](#footnote-3).

Mexico City used the Rockefeller framework to define its resiliency strategy around six pillars: future; land use and planning; water; infrastructure; economy and mobility.

Barriers

Mexico City is a complex city, with many different administrative boundaries to tackle. The city itself is divided into 16 semi-autonomous municipalities. And Mexico City is just one part of the much larger metropolitan area consisting of another 60 municipalities. Given the number of different players, it’s difficult to believe that a single person, the CRO, could feasibly coordinate all the resilience efforts or get the buy-in of everyone.

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*A map of Mexico City (Distrito Federal) and the greater metropolitan region.*

Peseros and The Mapathon

Of the resilience challenges that Mexico City identified, this paper will focus on mobility, and specifically the form of transport known as “peseros.” Peseros are a form of informal public transit servicing the greater Mexico City region. They are generally small buses seating about 20 people, although there is no standard. They run fixed routes, but being privately owned without any central organization, the government has little understanding of where and when they run. There are an estimated 29,000 of them in the city and they carry 60% of daily trips, or about 14 million trips – millions more than the busiest subway systems in the world.[[4]](#footnote-4)

Earlier this year the Laboratorio Para La Cuidad, in collaboration with the city and other partners ran the Mapathon, a crowdsourced data collection event to map out the pesero routes. They created a mobile app which allowed riders to record their trips and offered prizes for the top mappers. They recorded over 1500 different routes, which the organizers believe is most of the routes. This will provide the city with the best knowledge of the pesero network to date.



*A map of the pesero routes collected during the Mapathon*

Currently the Peseros are seen as a nuisance – the sheer number of them, as well as the way they drive, contribute to the congestion problem that the city is hoping to address as part of mobility resilience. The city has started trying to replace Peseros with formal transit infrastructure such as bus rapid transit which can carry more passengers more efficiently. But what if instead of seeing the peseros as an obstacle, we thought of them as a resource we could take advantage of?

Coordination of Peseros in the Event of a Disaster

When disaster strikes is the time when it is most important that vehicles, people and supplies can move easily throughout the city. But it is precisely at these times that road conditions are at their worst. Obstructed roads make it difficult for large vehicles such as buses or trucks to navigate the city. In 2012, after Hurricane Sandy hit New York most public transit was shutdown – subway tunnels were flooded and buses couldn’t move around debris and downed trees. And while most people were best staying at home, some critical individuals such as nurses still needed to do their jobs and New York’s own form of peseros – the dollar vans – stepped in to save the day[[5]](#footnote-5). Whiles buses couldn’t navigate the obstructed streets, the dollar vans were small and flexible enough to do so. Inspired by the role dollar vans played after Hurricane Sandy, I’d like to propose how peseros can be seen as an important player in Mexico City’s resilience strategy rather than just an obstacle to resilience.

The goal is to be able to coordinate peseros in the event of a disaster. From simply getting peseros cleared off of a stretch of road to make way for emergency vehicles, to having them move people or supplies around the city. With 29,000 peseros on the road – a fleet as large as the NYPD – coordination certainly poses a huge challenge, but also a great opportunity.

Challenge: Technical

There are two key pieces to be able to coordinate a fleet of vehicles: tracking and communications on the vehicles; and an operations center to monitor and direct the fleet. This is extremely timely because both of those pieces are already being thought about by Mexico City in some form. The Mapathon was a quick and dirty way for the city to start to understand the pesero network, but the government has already approved installing GPS tracking units in peseros over the next five years to have a more sustainable way of understanding the system. If, instead of merely equipping each pesero with a GPS unit, they were instead given a simple and cheap smartphone – which has GPS, cameras, communications and more all built in – that would provide sufficient capability to track and communicate with peseros, as well as providing all the other benefits that come with a smartphone. Furthermore, the government has already approved the creation of a mobility command center, even though they don’t yet know what to do with it.

Challenge: Engagement and Cooperation of Pesero Operators and Drivers

This plan necessarily hinges on the ability to gain the support

Challenges to Big Idea:

Organizational

Political

Technological

Take a cue from the Mapathon and engage drivers/citizens directly

Provide added value for drivers, citizens and the city.

Resilience isn’t just about efficiency, it’s also about redundancy.

It doesn’t need to be perfect right off the bat. It just needs to be better than it currently is. If that means some sort of coordination, that’s better than complete autonomy and chaos.

1. http://www.100resilientcities.org/blog/entry/what-is-a-chief-resilience-officer1#/-\_/ [↑](#footnote-ref-1)
2. http://www.100resilientcities.org/resilience#/-\_/ [↑](#footnote-ref-2)
3. http://www.100resilientcities.org/blog/entry/what-is-the-100-resilient-cities-platform-of-partners#/-\_/ [↑](#footnote-ref-3)
4. http://www.fastcoexist.com/3058475/mapping-mexico-citys-vast-informal-transit-system [↑](#footnote-ref-4)
5. https://www.youtube.com/watch?v=7PI7tJ3GS1E [↑](#footnote-ref-5)