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Express Routes

Bus rapid transit (BRT) projects are back in the fast lane. The resurgence is happening as cities around the world seek to reduce congestion and create public transportation opportunities beyond more expensive alternatives such as streetcars and light rail. There are nearly a dozen BRT projects underway in the United States and Canada, and more in emerging markets such as Dar es Salaam, Tanzania and Peshawar, Pakistan.

The renewed interest—the first BRT systems were implemented more than 40 years ago—is driven by efficiencies. They feature dedicated lanes so buses can sail through traffic, while boarding time and passenger waiting time is reduced. BRT projects also require fewer infrastructure investments. Project teams expand existing roads rather than create new infrastructure, so their budgets are typically a quarter to a third of the cost of light rail.

All of this results in a shorter timeline than rail projects. BRT projects can be completed within about four years, says Jacob Mason, global research manager, Institute for Transportation and Development Policy, Washington, D.C., USA.

But many BRT projects do not achieve their intended results because of poor planning, Mr. Mason

says. Public stakeholders are a key part of the equation, especially for avoiding backlash. Among other problems, constructing dedicated lanes can require traffic rerouting and extensive lane closures that can prompt pushback. And like any large infrastructure project, BRT projects easily can run into delays and cost overruns. “A lot of the devils are in the details,” he says. “Often a lot of things needed for a successful bus system aren’t done because they are politically challenging, such as preventing left turns across bus lanes.”

Path to Success

Previous projects offer useful lessons learned, such as the need to ensure all major risks and requirements are identified before design is completed and approved. For instance, after a 10-year, US\$100 million investment by the World Bank and others in Hanoi, Vietnam, BRT buses have attracted few passengers and delivered few practical benefits for the city. As a result, it’s politically difficult to prevent other traffic from using dedicated BRT lanes. Karl Fjellstrom, director of transportation consultancy for Far East Mobility in Guangzhou, China, studied the system and says it illustrates how missteps at the concept design stage can lead to bigger problems.

Dedicated Lanes

Bus rapid transit (BRT) is particularly attractive in developing countries where public demand is high for affordable and efficient transportation in overpopulated cities. Here’s how projects in those markets are taking shape:

DAR ES SALAAM, TANZANIA ▶

The African Development Bank is sponsoring a US\$159.3 million project for phase two of the city’s BRT system. The new line aims to be more user-friendly, particularly for women, children, the elderly and disabled people. Construction started in June.



LAGOS, NIGERIA ▶

By adding 5,000 buses to its BRT system by the end of the year, the city of more than 17 million people hopes to alleviate overcrowding and long wait times. It’s part of a program to improve a decade-old transit system.



AMMAN, JORDAN ▶

Construction is underway on a BRT project that’s 10 years in the making. With a goal to build a system that improves transportation access for women and all economic classes, the project is expected to be completed in 2020.



PESHAWAR, PAKISTAN ▶

The team has completed 70 percent of the work on a PKR68 billion project that has been plagued with cost overruns and delays. The Peshawar Development Authority had to secure an additional PKR2.5 billion to cover extra costs, including nine design changes and delays in procuring the buses.



“Project managers can ensure success if they start with a good BRT concept design. In all of the poorly performing systems, the shortcomings can usually be traced back to the concept design stage,” Mr. Fjellstrom says.

In Brazil, where BRT originated, good planning and design have made the country a model for successful projects. For instance, Rio de Janeiro expanded its BRT system last year with a 23-kilometer (14.3-mile) extension servicing an additional 25,000 people daily. That expanded the 120-kilometer (74.6-mile) system’s ridership to 500,000 people each day. Project teams even have built dedicated passing lanes for buses that allow them to cruise at an average of 42 kilometers (26.1 miles) per hour. The expansion project also connected to the city’s rail infrastructure.

Right by Riders

One advantage for Brazil’s BRT projects is built-in stakeholder support—earned from decades of successful engagement during initiatives. But stakeholder resistance is a problem for BRT projects in other regions. Concerns include fear of competition among existing transit operators and public apprehension over how projects might temporarily impact existing infrastructure.

In San Francisco, California, USA, the 3-mile (4.8-kilometer) Geary Rapid project is part of a US\$65 million initiative that includes repaving and water and sewer upgrades in one of the busiest bus corridors in the city. Liz Brisson, major corridors planning manager, Municipal Transportation Agency, San Francisco, says her team discovered the cost and time needed to engage the public and other key stakeholders are greater than rail costs.

“The only place to turn to create dedicated right of way for buses is to repurpose general purpose traffic lanes and/or on-street parking. While it’s much cheaper than acquiring right of way, this creates outreach and political challenges,” Ms. Brisson says. “That in turn means that the percentage of soft costs for things like outreach end up being a much higher percentage of overall costs than a rail project would.”

She recommends project managers consider setting aside contingency funds for such additional costs. The project is still moving forward, with implementation slated to begin later this year and completion slated for early 2021.

Having a political champion also can keep projects on track in the face of outreach challenges, says Annie Weinstock, president of BRT Planning International, New York, New York, USA. The firm has provided project management consulting for BRT systems in South Africa, East Asia, Southeast Asia and the United States. Ms. Weinstock says the major challenge in each region has been the trade-off between building a quality BRT system that benefits many and retaining automobile throughput, which typically benefits far fewer people. Having the support of an influencer—such as a high-profile politician or prominent business leaders and community groups—can help teams convince the public of the benefit of prioritizing BRT over other transportation.

“Every BRT project has opposition,” she says. “Without a champion, a BRT project will most certainly get watered down or never get built.”

—Ambreen Ali



“Project managers can ensure success if they start with a good ... concept design.”

—Karl Fjellstrom, Far East Mobility, Guangzhou, China

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