

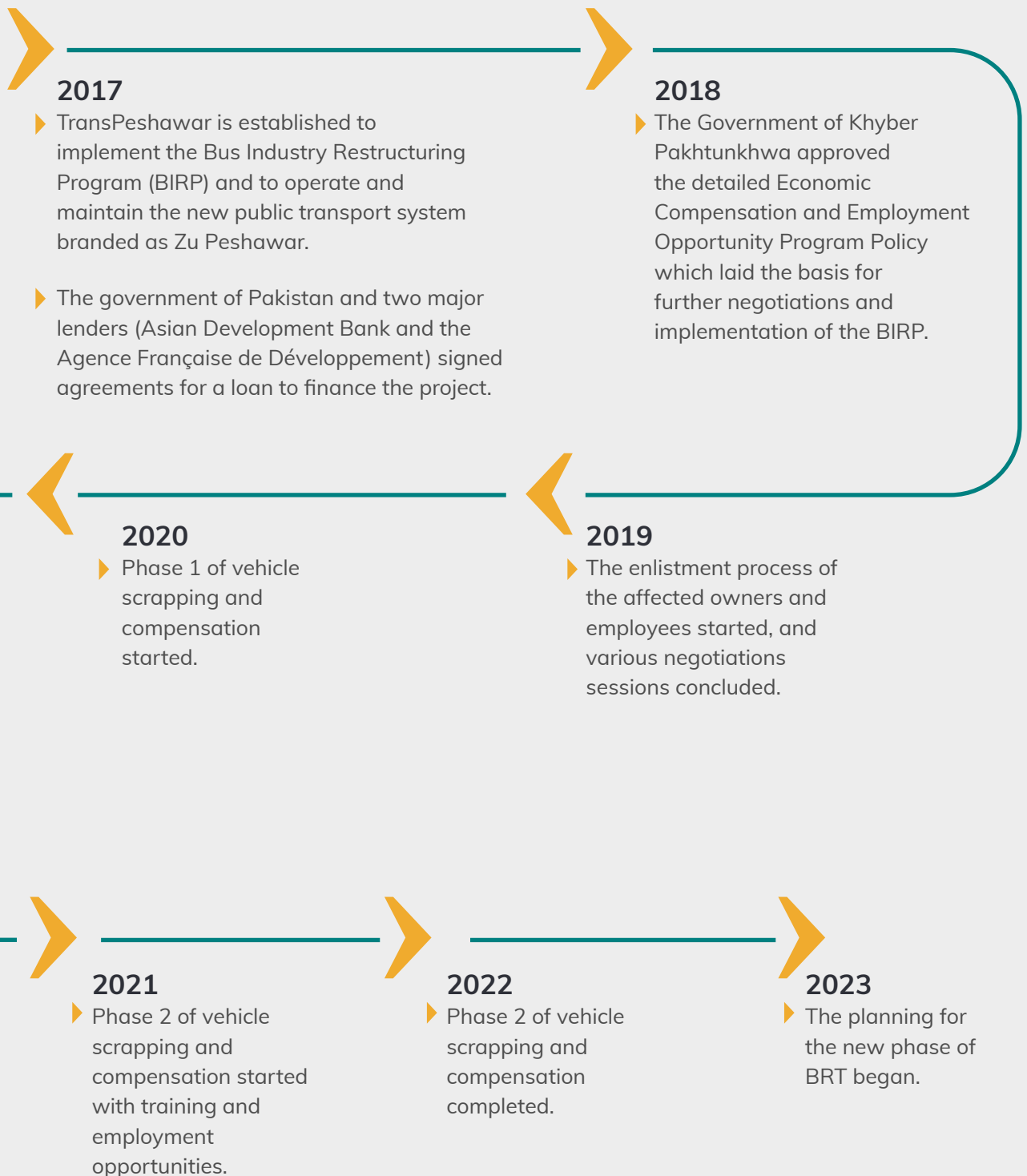


# STA 2024 Spotlight: Peshawar, Pakistan

## Peshawar's Collaborative Transition of the Public Transport Sector



# Timeline



In 2022, Peshawar was the recipient of an Honorable Mention by the Sustainable Transport Award for its Bus Rapid Transit (BRT) system, Zu Peshawar. Just two years later, they are once again being recognized for the Bus Industry Restructuring Program (BIRP).

The program, completed in 2022, was able to transform Peshawar's transportation system from a series of individual paratransit providers to a robust bus rapid transit system that serves over **345,000 passengers daily**.

This transformation was made possible due to the involvement of various stakeholders across all phases of implementation, from former bus owners and drivers to community groups. Zu Peshawar provided opportunities for different groups to participate in the transport system, and enabled people with disabilities, transgender persons and women to travel safely and with ease. One of the key achievements of the system was the increase of female ridership, from just 2 % before implementing the BRT, to 27 % after Zu Peshawar began operations.

✔ Zu Peshawar's BRT system transformed the city's commute with inclusive, modern transportation  
Credit: TransPeshawar.



Now, as the system enters its second phase, Peshawar is hoping to expand the benefits that the first phase was able to achieve. The improvements of the public transportation system have also had ripple effects for non-motorized transportation methods such as bicycling and walking. The BRT system was constructed with coinciding bicycle lanes as well as Pakistan's first ever bikeshare system. There have also been improvements to sidewalks, ramps, and pedestrian bridges in order to service the BRT system.

The BIRP program played an important role in the industry transition and proved that transition to a formal system can be both just, efficient, and equitable. TransPeshawar, the operator of Zu Peshawar, followed a meticulous and innovative plan, which forever changed the perception of public transport in the city.

Zu Peshawar serves 345,000 passengers daily. Credit: ADB.



# Bus Industry Restructuring Program

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Before Zu Peshawar, the city relied on a decades-old informal transit network with hundreds of operators driving various vehicles, leading to overcrowding and congestion. Despite the BRT being a big success, there was still not enough coverage of sustainable and inclusive transportation in the city. Peshawar initiated the Bus Industry Restructuring Program (BIRP) to address this, working with operators to restructure the sector post-BRT inauguration. The agreement aimed to achieve emissions and pollution goals while working to remove old vehicles from the road.

Current goals of TransPeshawar are to increase the network coverage from 35% to 75%, and to provide public transport facilities to every citizen within a 500-meter walking distance at an affordable price. To achieve this, TransPeshawar will introduce eco-friendly buses, provide inclusive features

and accessible infrastructure, develop non-fare revenue, ensure the economic and financial sustainability of the system, and include all affected employees, residents, and businesses in the process.

The Bus Industry Restructuring Program implemented in Peshawar marked a significant shift from unregulated paratransit services to a formalized, inclusive public transport system. Unsafe and outdated vehicles were replaced with safe, accessible, and environmentally friendly buses, enhancing the overall transportation infrastructure.

From the get-go, Zu Peshawar was envisioned as an inclusive transport service, not only because of who it was catered to, but also how. One key stakeholder group included in the project's planning process were the operators of the city's existing transit system.

✔ Peshawar's initiative replaces outdated vehicles with safer, eco-friendly buses, revamping city transit. Credit: TransPeshawar.



Through a multi-step process, the program identified private individual operators, conducted industry and staff profiling, developed compensation mechanisms, and offered employment opportunities within the new system. By involving stakeholders from all levels, including individuals with different physical challenges and women, BIRP ensured that the new transport system met internationally acceptable standards and addressed the needs of vulnerable communities. Working with private paratransit bus owners was one of the program's key strengths.

The project wanted to showcase a smooth industry transition process. It began with a detailed identification of all stakeholders through market analysis, looking at the current transport sector to identify key areas for a survey. The Regional Transport Authority, the Excise and Taxation Department, and Local Municipal Authorities were consulted. Data collection was via surveys and data from government departments, as well as through individuals with different physical challenges within intra-city terminals and routes. Overall, the program conducted 1,500 sessions with vehicle owners, drivers and conductors, as well as 43 consultation sessions with government departments, resulting in a thorough market analysis of affected routes and operators.

In the next step, the program created a profile of the existing industry through route and bus profiling to gather details on routes to be removed or curtailed; on the types of vehicles operating and their age, type and number of trips per day; on the per-day and per-month earning as well as the cost of maintenance and operation; and on the vehicle suitability for either inclusion in or removal from the fleet. A profiling of employees and owners followed to find out details about the number of employees per vehicle and route, about their monthly earnings, their benefits, and the monthly earnings of owners. This resulted in a profiling of vehicles, owners and employees.

In addition, the program worked on an economic compensation model by looking at vehicle documents, vehicle models, route permits, and the physical condition of vehicles. This allowed for a comparison between estimated requirements and existing employee numbers across different employment types including drivers, conductors, security staff, station staff, corridor cleaning, mechanics, technical staff, and administrative and management staff. The model found that the BIRP will create around 4,000 new jobs, mostly in conducting and security as well as in station staff positions.

TransPeshawar engaged local transit operators through consultations, ensuring their voices shaped the inclusive and accessible transport system.  
Credit: TransPeshawar.



Lastly, there was a process for the economic compensation and inclusion of owners into the BIRP resulting in the development of a mechanism to provide better opportunities. Owners who met eligibility criteria in terms of their route permit and their vehicles could decide between two options, which were taking alternative routes or selling their vehicles and receiving compensation for 12 months.

As a result, the BIRP pursued scrapping old buses, compensating affected drivers, and offering employment alternatives. Around 650 vehicles were identified for scrapping, with 503 vehicles removed and scrapped. The remaining vehicles will not operate alongside the BRT system. TransPeshawar and the Government of Khyber Pakhtunkhwa (KPK) allocated funds for this initiative, providing compensation to owners and facilitating new employment opportunities. Despite challenges, BIRP's comprehensive approach fostered safer and more efficient transit, showcasing the benefits of long-term stakeholder engagement.

The project aimed at proposing solutions acceptable to both operators and the government.

Initial surveys revealed that operators lacked organization and that associations were fragmented, with limited understanding of complex operations like a BRT. Trust issues, vehicles from other cities or registered under another name, communication problems, and a multitude of government departments further complicated the process. These challenges are ongoing and will require patience and good communication.

Another challenge is meeting the goal of electrifying all buses by 2030. TransPeshawar is currently carrying out an initial assessment to identify challenges that need to be overcome in the next phase of the project. The electrification of the fleet is facing major challenges, including the high capital cost, high electricity cost, a lack of expertise in the local market, insufficient capacity of grid stations, unreliable electricity supply, local rules and regulations, and the availability of land. To overcome these challenges, TransPeshawar is emphasizing the socio-economic benefits of electrification, such as reduced environmental impact, lower operations and maintenance costs over time, and the creation of job opportunities.

The Bus Industry Restructuring Program (BIRP) removes outdated vehicles from Peshawar's roads, recycling materials and clearing the way for a cleaner, safer transit system. Credit: TransPeshawar.



At the moment, the TransPeshawar is in the second phase of the BRT project, which entails expanding the current BRT routes. The aim is to replace all diesel and informal transport vehicles with electric buses by 2030. Other possibilities include the expansion of cycle tracks over the next few years to address the first- and last-mile connectivity in the city.

The second phase of the Peshawar BRT system will inevitably lead to a continuation of the BIRP in order to ensure a smooth, just, and equitable transition from the city's current transportation system to the BRT system. This is why the next phase of the BIRP will focus on smaller vehicles that ensure connectivity across the first and last mile of travel and extend the reach of the BRT system into congested areas with narrower streets where the BRT buses cannot operate. Older vehicles will be phased out through

scrapping and providing compensation to the owners, while other vehicles, including electric three-wheelers, will be integrated into the BRT system. The goal is to enhance the overall efficiency and accessibility of the public transportation network and to benefit the community at large.

After completing the pre-feasibility study and signing the Project Readiness Financing Agreement amounting to USD 10 million between the Government of Khyber Pakhtunkhwa and the Asian Development Bank, detailed design and procurement steps can be taken. By June 2025, the detailed design study for Phase 2 of the project will be completed and there will be a study on the operational design and the business model. This will allow for the start of the construction phase for infrastructure and system integration, making 2027 the year when the expanded TransPeshawar system will likely commence.

▼ Zu Peshawar Phase II plans include extended BRT routes, bike-share systems, and integration of electric vehicles. Credit: ADB.





In this second phase of the project, the city is working on first- and last-mile connectivity to enhance overall public transportation accessibility. This includes incorporation of 3-wheelers and other active modes of transportation, especially in areas where Zu Peshawar is not (yet) operating. The following initiatives will address connectivity through:

- ▶ Expansion of bikesharing system (BSS): TransPeshawar plans to add 300 bicycles to the existing BSS network. This will encourage environmentally-friendly modes of transport and will enhance the use of NMT modes for short-distance travel.
- ▶ Provision of electric three-wheelers: Introducing 300 electric three-wheelers will not only provide options for last-mile connectivity but will also enhance access in areas that are not directly served by Zu Peshawar buses. These vehicles will also ensure access in areas with narrow or congested roads.
- ▶ Inclusion of electric scooters: The city plans to add 200 e-scooters to the transportation mix which will provide another eco-friendly option for short-distance travel, complementing the existing public transit infrastructure.
- ▶ Integration of existing small paratransit vehicles: Peshawar is working on integrating existing three-wheelers such as rickshaws and small paratransit vehicles into the overall transit system. This integration will help in optimizing resources and expanding the reach of public transportation services.
- ▶ Enhanced pedestrian infrastructure: Planning includes providing universally accessible continuous sidewalks along the BRT network, ensuring safe and convenient walking routes for commuters. This integration with neighborhoods will serve in improving pedestrian connectivity.
- ▶ Development of dedicated greenways: Creating dedicated greenways spanning 2 kilometers along Gulbahar Canal will not only add aesthetic value but will also promote cycling and walking as viable transportation options. These greenways will contribute to a healthier urban environment and enhance the overall public realm experience.

Peshawar's bikeshare initiatives bridge gaps in transit, enhancing accessibility. Credit: TransPeshawar.



# ➤ Lessons Learned and Opportunities for Replicability

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The success of BIRP offers opportunities for replication in other cities facing similar challenges in transitioning to formalized public transport systems. By adopting a comprehensive approach that addresses compensation, employment, and vehicle scrapping, cities can effectively regulate their transport sectors while improving accessibility and safety for all citizens.

- Peshawar's success with BIRP offers a model for other cities aiming to transform transit infrastructure. Credit: TransPeshawar.



Some of the lessons learned during the implementation of the BIRP include:

- ▶ Taking the time to conduct extensive market surveys and understand individual vehicle owners supports acceptance of a scheme and creates a solid database.
- ▶ By gradually removing older vehicles and offering compensation to vehicle owners, it is possible to restructure the bus industry step by step.
- ▶ Effective communication is key, especially when there might be language barriers or large differences in education levels.
- ▶ Offering other modes of paratransit can also help to restructure the bus industry. In addition, it can create new employment opportunities.
- ▶ By constituting a committee, the program managed to keep an overview and follow a streamlined communication and implementation plan. In this case, a strong vision for the system guided the design and process of the program.
- ▶ To finance a BIRP, it is helpful to recoup money from scrapped vehicles and reinvest it into the systems. This helps to recover some of the initial investment and also promotes sustainable practices by recycling materials that would otherwise end up as landfill.
- ▶ Providing training to bus industry employees is key to implementation.
- ▶ To promote inclusion, Peshawar has added 115 wheelchairs across its stations, ensuring that passengers with mobility challenges have access to essential support while using the transport system. Continuous accessible sidewalks, public spaces, play areas, and greenways will be developed. In addition, the city is planning for integrated way-finding signages and braille signage.
- ▶ Street vendors are included in the plans by providing kiosks at busy stations along the pedestrian passageways to promote economic inclusion and to provide services to commuters.

The strong vision of TransPeshawar is key to designing and implementing a new transport system for a city. The project has already sparked similar feasibility studies in other Pakistani cities with existing transit systems to look into switching to electric vehicles. The additional benefit of beautifying the city through implementation of the project has sparked interest among other city agencies, further highlighting the positive impact and replicability potential of such initiatives.



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