



Jakarta Parking Reform Guidelines

July 2024





The Institute for Transportation and Development Policy (ITDP) is a global non-profit organization founded in 1985, headquartered in New York, United States, and focused on promoting sustainable transportation innovation and urban development. For nearly two decades, ITDP Indonesia has provided technical assistance to local governments in Indonesia, such as Jakarta, Semarang, Surabaya, Pekanbaru, and Medan in supporting sustainable transportation development through public transport integration and reform, active mobility enhancement, transit-oriented development (TOD), vehicle electrification, GEDSI, and traffic demand management.



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Executive Summary

Amidst the scarcity and high price of land in Jakarta that can be used for human activities such as housing and business activities, a large number of parking facilities can still be found. For example, the Dukuh Atas area, which has been designated as a transit-oriented development (TOD) and served by four high-quality public transportation services, still has 30,000 off-street parking spaces, such as parking buildings and lots. If laid out entirely at ground level, these parking spaces would occupy 18.1% of the total area of Dukuh Atas. In addition, there is also on-street parking, which is parking on the side of the road, both legal and illegal, on several roads in the Dukuh Atas area.

The parking issue is a result of the number of private vehicles that continues to increase uncontrollably; there are at least 22 million registered vehicles traveling in Jakarta (BPS, 2024). If the government does not take this situation seriously, this cycle will continue and trigger more parking problems.

GAPS BETWEEN POLICY AND IMPLEMENTATION

Comparing the regulations and policies with their implementation, there are some obvious problems with the parking management system in Jakarta. These problems are mostly structural in nature, meaning they lie in the current regulations and policies. Although recent regulations such as Jakarta's Detailed Spatial Plan (Rencana Detail Tata Ruang/RDTR) have started to shift towards limiting the amount of parking in TOD areas, the core documents governing parking have yet to be updated to support the new government's targets. In general, some of the issues that need further study include:

Affordable on-street parking rates and unrenewed parking zones contribute to the persistence of car dependency in the area;

Building codes still require parking to be provided in buildings with minimum parking requirements for all zones within the city; and

Abundant parking spaces in TOD areas and misconceptions about park and ride.

In addition to issues related to regulations and policies, other issues need to be considered, as these aspects are complementary but play an important role in the success of parking reform. These issues include:

Enforcement issues, which include limited resources and inconsistent actions, as well as lack of control over parking attendants and private parking operators;

Technology issues, which include the non-functioning of half of the electronic parking terminals (TPE) or parking meters in on-street parking, the absence of real time and accurate parking vacancy information, and the lack of supervision in parking areas; and

Institutional issues, which include misalignment between Jakarta's development plans and parking management strategies, such as pedestrian revitalization.

PARKING REFORM IMPLEMENTATION LESSONS FROM OTHER CITIES

Several cities worldwide implementing parking reforms, such as Beijing, Mexico City, São Paulo, and Atlanta, have noted lessons learned from challenges or obstacles encountered and successful parking reform strategies. These lessons, summarized in the points below, should be anticipated to make parking reform a success in Jakarta:

- 1 Data and success stories play an important role in encouraging the implementation of city parking reforms;
- 2 A clear vision, policy, and strategy for parking reform is needed;
- 3 Parking reform is positioned as a strategy to deliver other benefits to the community;
- 4 Transparent processes, including where parking revenues are allocated and strong public engagement through various communication channels, are recommended to smooth the transition;
- 5 The effectiveness of the parking reform policies should be evaluated regularly to ensure that their impact is optimized; and
- 6 Capacity building and awareness should be addressed in parallel with the entire technical and political transition process.

REFORMING THE PARKING MANAGEMENT SYSTEM IN JAKARTA

Parking provisions should not be treated as a public good. Instead, parking is a commodity that must come with a price. Parking reform, implemented through zoning policies by regulating tariffs and supply in specific areas, serves as a strong and effective traffic demand management (*manajemen kebutuhan lalu lintas/MKLL*) tool. **The parking reform initiative is a crucial step that the DKI Jakarta Provincial Government must take to:**

- 1 Promote the use of and allocate more space for sustainable transportation;
- 2 Create opportunities for affordable housing and other productive uses that support the principles of TOD;
- 3 Break the dependence on private vehicles, and reduce congestion; and
- 4 Reduce traffic congestion and air pollution in the long term.

Cities can adopt several parking policy approaches, including the conventional, multi-objective, and parking constraint approaches. Jakarta, like other cities in Southeast Asia, currently adopts the conventional approach, which is still oriented towards providing sufficient parking supply to meet the estimated demand, resulting in minimal parking requirements. **A multi-objective parking management approach must be prioritized** to reform parking policy. This approach will allow Jakarta to solve problems or achieve broader goals by the city. This approach will also be helpful in communicating the urgency of parking reform.

Parking reform should be implemented for both on-street and off-street parking; it cannot be implemented for just one.

When undertaking parking reforms, the government hopes to shift people from using private cars to alternative transportation modes that are more environmentally friendly. When interventions are applied to on-street parking, adding off-street parking should not be done as it will only move the problem elsewhere or even create new problems. The following are some considerations the DKI Jakarta Provincial Government should take in reforming on-street and off-street parking.

■ On-Street Parking Reform

- It is recommended that parking reforms be initiated by implementing time-differentiated pricing or restricting parking to specific periods to control demand. This can also be coupled with progressive pricing or maximum duration parking to control turnover.
- The DKI Jakarta Provincial Government should reconsider the frequency of parking tariff evaluation and the occupancy levels that trigger tariff increases in order to adapt quickly to the situation. Evaluation periods of six to twelve months and occupancy thresholds of 65% to 80% are commonly used by cities undertaking parking reforms.
- It is recommended that information on on-street parking facilities be provided as clearly as possible. In the future, the DKI Jakarta Provincial Government needs to add more apparent markings regarding parking regulations, such as zoning colors, time allowed for parking, and so on.
- The DKI Jakarta Provincial Government needs to upgrade parking meters or TPE with sensors and big data systems to enable automation in payment, revenue leakage prevention, law enforcement, and data collection. In addition to the commonly used stored-value cards, QR codes or QRIS should be added to the parking payment methods. Cash payments can also be considered with specific schemes to prevent revenue leakage.

■ Off-Street Parking Reform

- The DKI Jakarta Provincial Government should start by removing minimum parking requirements and replacing them with new maximum parking requirements. This can be done in areas with public transportation, pedestrian and cycling infrastructure, and implemented traffic demand management. However, specific buildings or groups (especially people with disabilities and cyclists) should be exempted from maximum parking requirements.
- In areas with low coverage of sustainable transportation and MKLL, it can be considered to reduce the number of minimum parking requirements, combined with high parking fees.
- Shared or collective parking should be encouraged within an area, as mentioned in the RDTR, to optimize the use of existing parking spaces. If implemented, the DKI Jakarta Provincial Government can limit or reduce an area's overall number of parking spaces.
- Building owners, business owners, and other companies are encouraged to take part by conducting programs that promote the use of sustainable transportation; implying the urgency of parking reform, for example, by providing incentives to workers who use public transportation; separating parking fees from space rental fees; and so on.
- Park and ride should not be located at stations in the city center, especially where MKLL measures are already in place. This aims to maintain the purpose of park and ride itself, promote public transportation to the city center, and prevent the facility from being used by parking users who do not use public transportation in the city center.

Parking zones should be applied to differentiate the strictness of parking reform tools for areas with different characteristics and facilities.

Furthermore, **the revenue earned from the parking management system can be allocated** to fund objectives that shift people away from using private vehicles—a practice known as earmarking, where specific revenues are dedicated to specific public purposes. The DKI Jakarta Provincial Government can allocate parking revenues fully or partially by creating a special account to store parking revenues. City governments have allocated their parking revenues to:

- 1 Develop a bikesharing system
- 2 Improve the public transportation system
- 3 Provide incentives for vulnerable groups of public transportation users
- 4 Revitalize urban space

PARKING REFORM ROADMAP

Referring to Jakarta's target to prioritize the use of sustainable transport and reduce emissions from motor vehicles to achieve net zero emissions by 2050, parking reforms should start in areas with existing or planned high-quality public transport services and pedestrian and cycling infrastructure and/or in areas with planned traffic demand management. With this in mind, areas that can be prioritized include:

- 1 **TOD areas and other public transportation-based areas** mentioned in the RDTR and Jabodetabek Transportation Master Plan (Rencana Induk Transportasi Jabodetabek/RITJ); and
- 2 **MKLL areas**, including low emission zone (LEZ) and electronic road pricing (ERP), specifically for area-based or cordon scenarios.

TOD areas and other public transportation-based areas were analyzed using a set of scoring criteria and indicators to determine their parking zones. **The scoring criteria are derived from the following categories:**

- 1 **Government policy (implies level of importance of the area)**
- 2 **Availability of alternative sustainable modes of transportation**
- 3 **Trip generation potential (land use)**

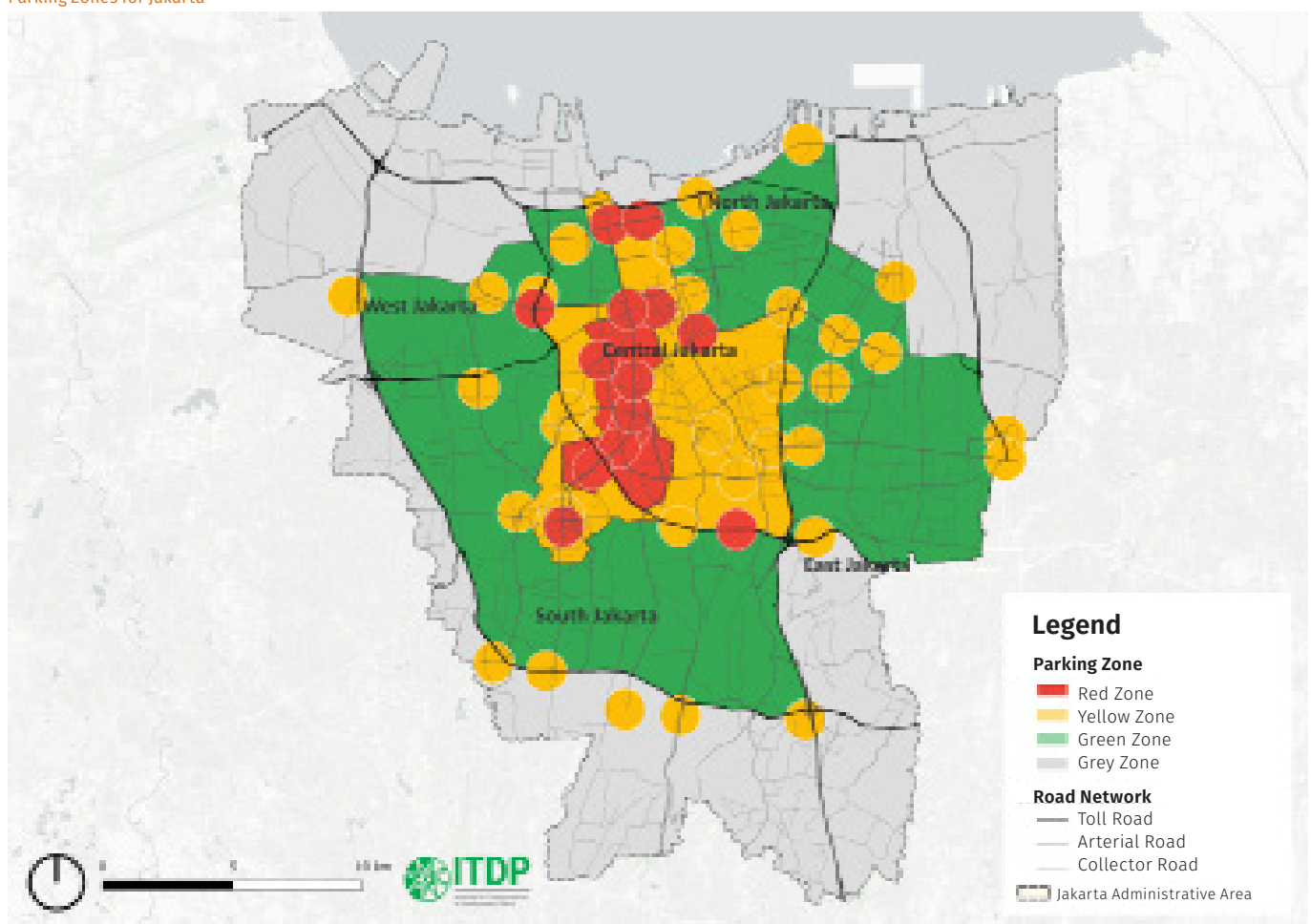
The analysis results in a list of areas based on the scores obtained. Areas that have similar characteristics are categorized into the same zone. Furthermore, this analysis was also overlaid with MKLL measures to complete the delineation of each zone.

In the end, implementing the parking policy in Jakarta is recommended to be **divided into four zones, namely 1) red zone, 2) yellow zone, 3) green zone, and 4) gray zone.**

- Red zones** have the most comprehensive range of alternative sustainable transportation modes and MKLL interventions. Red zones will apply the most stringent policies, including the highest tariffs, shortest maximum parking duration, lowest maximum parking requirements, and highest fines for off-street parking that exceeds capacity. TOD areas can be categorized into red zones.
- The yellow zone** is similar to the red zone, where TOD areas can also be categorized into this zone. However, the area in the yellow zone only requires one public transportation service and is not included in the area where ERP is implemented.
- Green zones** are served by at least one feeder public transportation. The policies in this zone will not be as strict as those in the red and yellow zones. Instead of applying maximum parking requirements, this zone applies minimum parking requirements with lower numbers.
- Gray zones** are basically the opposite of red zones, i.e. zones that are not served by public transportation, are not accessible by walking or cycling, and are located in the outer zones of the LEZ. Meanwhile, no changes are expected in the gray zone.

A depiction of the proposed parking zones in Jakarta is illustrated in the figure below.

Figure 1 Recommended Parking Zones for Jakarta



More importantly, changing the parking paradigm in a city cannot be achieved in a short period of time. It is especially important to be cautious in planning strategies in cities that are highly dependent on motorized vehicles, as public resistance is likely. In this case, a phased implementation is recommended so that the change is not too drastic. Parking reform in Jakarta is recommended to be carried out in three stages as follows:



Each phase will not be limited by time as the situation in each area and/or the entire city may vary depending on political will, community acceptance and rejection, government financial capacity, and other factors.

Finally, in line with parking reform efforts, the DKI Jakarta Provincial Government should accelerate the implementation of the following measures:

- 1 Improve and integrate existing and planned public transportation services;
- 2 Add and/or upgrade pedestrian and bicycle infrastructure;
- 3 Develop and provide bikesharing services; and
- 4 Pilot and implement LEZ and JBE.

