

Parking Policy in Palembang: May 2013 Mission Report

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This report is the result of an assignment in May 2013 and also builds on previous missions in 2012. All were commissioned by GIZ's Sustainable Urban Transport Improvement Project (SUTIP) in Indonesia for its mission to Palembang.



Parallel car parking beyond the trees in Jalan Sudirman, with motorcycles between trees.

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1 INTRODUCTION AND AIMS

This report is the result of an assignment in May 2013. It also builds on assignments in 2012. All were commissioned by GIZ's Sustainable Urban Transport Improvement Project (SUTIP) in Indonesia for its mission to Palembang. It responds to current high-priority short-term questions raised by DisHub in Palembang.

The short-term issues responded to in this report include:

- How to further improve the on-street situation in Jalan Sudirman (after the initial simple implementation of parallel parking);
- How best to enhance options for parking and access to Jalan Sudirman in the face of the loss of some parking supply due to the shift to parallel parking and in light of possible further parking removal in the future;
- Options for pricing and payment-system reforms for on-street parking in the CBD as SP2J takes its initial steps on this;
- Related pricing questions such as the appropriate price-setting approach and the right pricing scheme to adopt.

An important longer-term theme informs my thinking and advice on all of these shorter term questions. This theme is the need for all **short-term** parking reform steps to be consistent with a **longer-term** set of parking policies that are supportive of more sustainable transport trends for Palembang. Short-term actions should not to undermine the long-term sustainable path. This theme is discussed in the final section of the report.

2 PARALLEL PARKING AND PARKING REMOVAL FROM ARTERIAL ROADS

In November 2012, parking in Jalan Sudirman was shifted from angled parking to parallel parking (located beyond the treeline but without the implementation of a service lane).

2.1 Improved traffic conditions following the shift to parallel parking

News reports from April 2013 and briefings from DisHub during my mission suggest that the Palembang authorities are quite happy with the improved traffic flow that has resulted from this shift.

Visual observation during my mission confirms some improvement, although there are some remaining problems mentioned below.

For example, A local design problem occurs at the northbound section near the Charitas intersection. This location is poorly suited to parallel parking located beyond the tree line since the trees are far from the kerb in this section. Parallel parking beyond the trees appears to impede buses and general traffic here. However, even here the impact of parking is not clear cut. The congestion here may actually be more closely linked with the capacity of the intersection itself rather than the parking.

This success has encouraged the idea of extending the switch to parallel parking to other nearby roads, such as Jalan Veteran. However, I would urge a cautious step-by-step approach (see a later section) which waits until pricing reform can be implemented across the CBD.

2.2 Service lane may not be needed

It is noted that these traffic improvements have been achieved without a service lane. Furthermore, SP2J now indicates that they should be able to implement a more reliable and time-based parking pricing system on Jalan Sudirman even without implementing the service lane.

This suggests that implementing a service lane can be put on hold for now and possibly cancelled. Such a lane is a complex design challenge that faces some tight space constraints in places so it should not be rushed into lightly.

2.3 Parking conditions following the shift to parallel parking

Traffic conditions have apparently improved. However, what about parking?

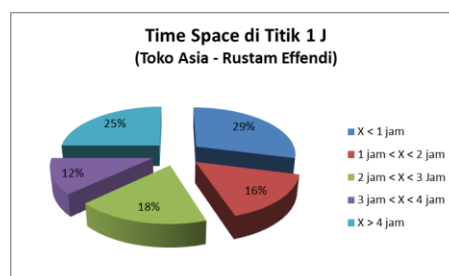
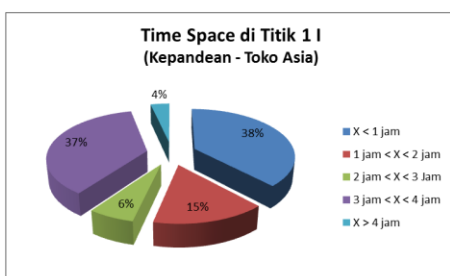
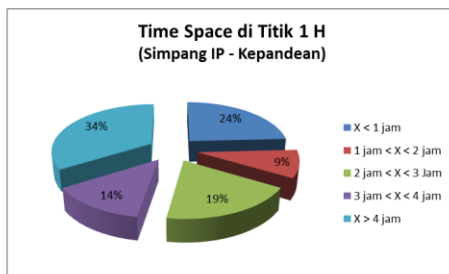
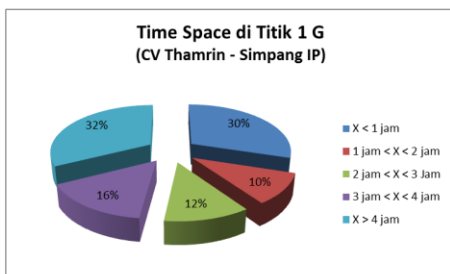
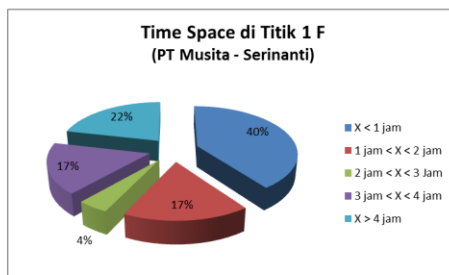
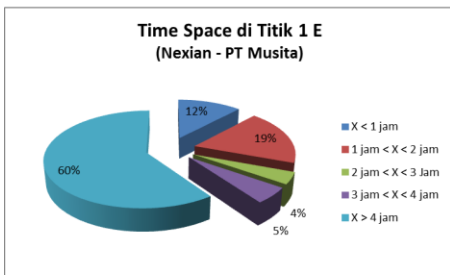
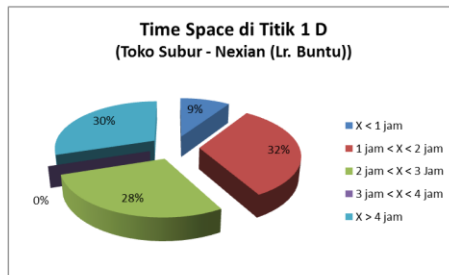
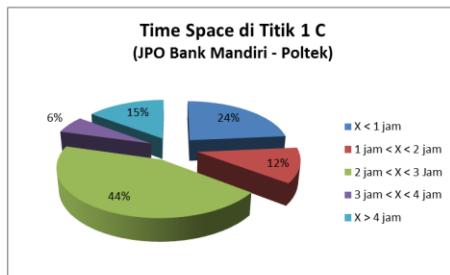
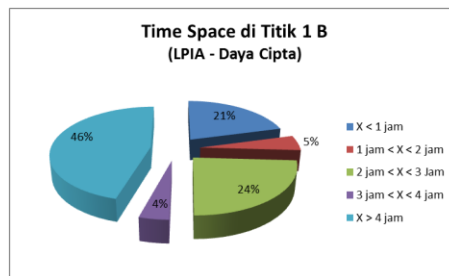
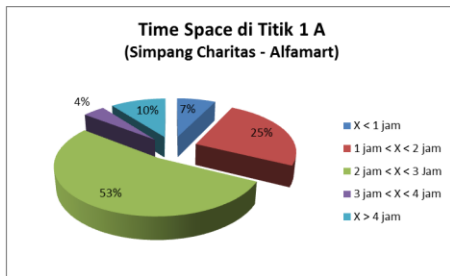
SUTIP carried out another parking survey in mid-November 2012 (after the shift to parallel parking). This survey found that parking on many sections of Jalan Sudirman is still saturated for long periods of the day. My observations during the mission in May 2013 were consistent with such reports.

Such parking saturation causes double parking and waiting for parking in the traffic lane at a number of places at busy periods. These activities threaten to undermine the traffic improvement noted above.

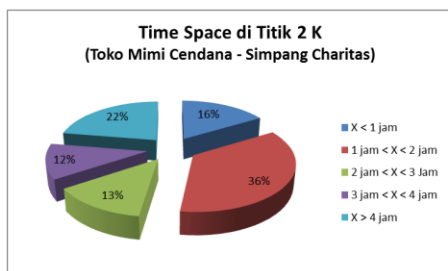
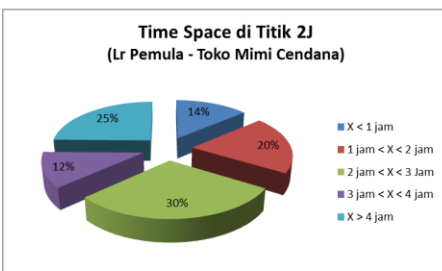
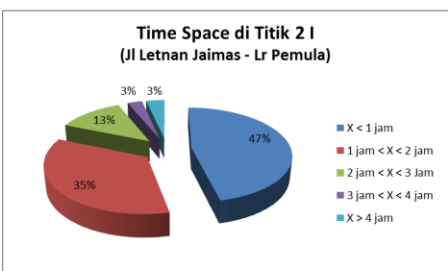
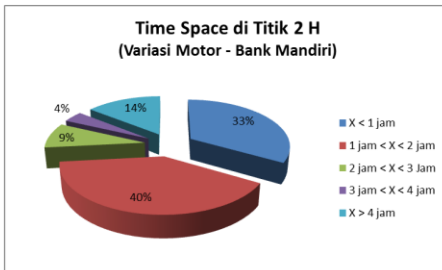
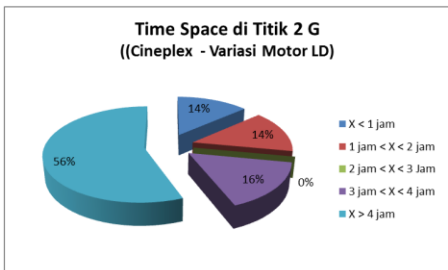
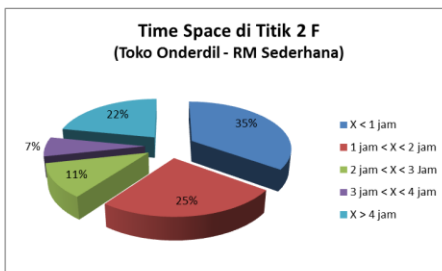
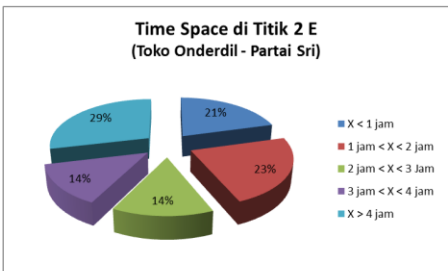
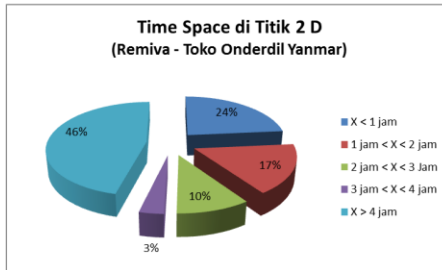
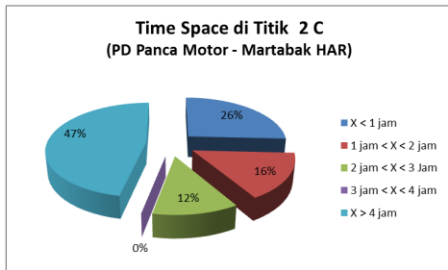
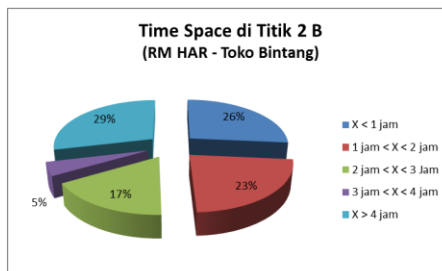
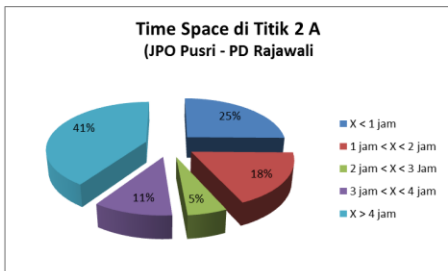
Fortunately, the survey also provided data that suggests that the saturation problem may be eased by the planned implementation of improved pricing in Jalan Sudirman, with time-based fees under SP2J. This is because long duration parking continues to be an important element in the parking saturation problem.

The time-space perspective reveals the proportion of parking space that is taken by parking of various durations. This is shown in Figures ## and ## below which show examples of the duration findings from SUTIP's multi-day survey. The light blue and purple segments can be considered long-duration parking.

Time-space shares for various parking durations on the eastern side of Jalan Sudirman (southwards traffic) on Wednesday 21 Nov. 2012



Time-space shares for various parking durations on the Western side of Jalan Sudirman (Northwards traffic) on Wednesday 21 Nov. 2012



2.4 Time-based fees should help by reducing and shifting long-duration parking

We see that long-duration parking takes a sizeable proportion of parking space on many sections of the road. Therefore, it is expected that the saturation problem on Jalan Sudirman should be eased by implementation of time-based fees.

This pricing change would probably involve to a significant price rise for those parking more than 2 hours. But it would probably not be a price increase for those parking less than one hour. In fact, depending on the price level set, it may be a price reduction for very short-term parking. This would be the case if a car parking price of Rp1000 per 30 minutes is chosen for example.

A key mechanism by which this pricing reform should help is by encouraging long-duration parkers to seek out alternative parking locations and/or alternative options for accessing the area. More on these alternatives and options in the next section.

Time-based fees should also encourage a slight tendency for shorter-duration parking also for parking that is currently medium duration.

In other words, time-based fees set at the appropriate price levels, should reduce the size of the green, purple and light-blue segments in the time-space graphs above. This would open up a great deal of space for shorter-term parking, which should benefit retail businesses on the street by enabling access for customers.

Other approaches to deterring long-duration parking are also possible but are not feasible with the current enforcement capacities in Indonesian cities. For example, a time limit can be imposed, such as 3 or 4 hours. However, this option requires intensive enforcement which is currently unlikely to be sustainable in Palembang.

The next section turns to the question of alternatives for the long duration parking which we hope to move away from Jalan Sudirman.

3 ENHANCING ALTERNATIVES FOR ACCESS TO JALAN SUDIRMAN

Easing saturation in Jalan Sudirman requires some motorists to shift to alternative parking locations or to alternative mobility options.

3.1 Why long-duration parking is the main focus of this discussion of alternatives

We saw above that a promising approach to easing parking saturation in Jalan Sudirman is to implement time-based fees in the street. A key purpose of this is to discourage long-duration parking from using the prime spaces in Jalan Sudirman.

So why this focus on long-duration parking?

One reason, mentioned above, is that the relatively few vehicles doing long-duration parking take a large proportion of the space on the street.

A second reason is that we cannot expect much short-term parking to shift to off-street parking. Motorists doing short-term parking are unlikely to find off-street alternatives attractive. Short-term visitors generally want to avoid delay, such as the need to walk too far from parking. However, a short walk at the beginning and end of a long visit to the area is more tolerable.

A third reason is that long-term parking is more sensitive to the time-based fee. Obviously, with time-based fees the payment to park for four hours is four times the payment for parking for one hour. In addition, many long-duration parkers are people working in the area who come there 5 or 6 days a week and park for 8 hours or more. Paying time-based fees every day will add up to a significant amount of money for such people.

So it is much easier and much more useful to focus on shifting the behaviour of long-duration parkers, not short-duration parkers.

3.2 Long duration parking needs alternatives

So the main strategy should be to encourage motorists who currently park in Jalan Sudirman for LONG durations (such as more than 3 hours) to instead seek alternative, more appropriate options.

For many, this will mean other (usually off-street) parking nearby. For some, it may mean choosing different mobility options.

However, currently there is a perception of a lack of alternative parking locations. So, it will probably be necessary to both enhance the parking alternatives near Jalan Sudirman AND to increase the awareness of these alternatives.

Similarly, it may be important to also improve other mobility options and to raise awareness of them, so that some motorists can avoid driving and parking altogether.

3.3 Update on parking alternatives

The Palembang authorities are aware of the alternatives mentioned below. This section provides some updated observations on the alternatives that have already been discussed.

Ampera Bridge parking area

One focus recently has been to emphasise the improvement of the Ampera Bridge parking area together with an enhanced TransMusi service and an integrated parking payment and TransMusi ticket to encourage some to park at Ampera then use the bus to reach destinations in Jalan Sudirman.

This may help a little and may be attractive to some long-duration parkers. Some may take advantage of the bus option.

But because of the location, many more will probably park here and walk to destinations in the southern part of the CBD. Of course, this is already popular as a place to park for accessing the 16-Hilir market and area.

Another problem is that the Ampera Bridge parking area seems already to be generally very full during daylight hours on most days (at current prices).

Investment in parking stackers could expand the capacity at a relatively modest cost. Stacked parking devices enable two cars to be parked in one space. This is usually only attractive for long-duration parking because of the slight additional inconvenience of retrieving vehicles.

There will be pricing dilemmas here. Pricing of this parking needs to be high enough to justify any investments (such as in parking stackers). Yet, for it to be attractive for long-duration parking the price here for 4 to 10 hours of parking would need to be lower than the price for a similar duration of on-street parking. Assuming that the on-street parking in the area becomes time-based in the future, Ampera Bridge parking could have a time-based fee structure but with a daily maximum set at about the price of 4 or 5 hours of time-based street parking.

Vacant land parking possibilities

The parking studies in 2012 also involved a focus on identifying off-street locations for potential parking facilities. My July 2012 report recommended a step-by-step approach. Part of this involved encouraging owners of identified sites to allow parking as a temporary use on their land. This should help test the market for such parking before any large investments are made, as mentioned in the previous report. An already existing example is the parking at the old Ciniplex. A large proportion of the parking here is long-duration parkers parking there daily.

Here is a new comment on pricing.

Such parking areas would need a similar pricing strategy to the one mentioned above for Ampera Bridge parking. They would need daily caps that mean that all-day parking is cheaper than parking all day on Jalan Sudirman, so that they can attract long-duration parking. Or they might simply adopt a flat fee that is higher than short-duration parking on Jalan Sudirman but cheaper than long-duration parking.

However, each parking site will only be able to charge what the market will bear. This will depend on their location and convenience of access.

International Plaza

This option was discussed in my July 2012 report (section 7.4.7). As mentioned before, Internasional Plaza has a multi-level parking structure which has a great deal of space available most of the time (except Sunday afternoons in fact). It is estimated that about 135 to 180 of the 315 or so car spaces are often empty on Mondays to Fridays.

A new development which may help ease negotiations is that this facility is now professionally managed by Secure Parking. So it should be worthwhile for the relevant authorities in Palembang to try again to open negotiations with IP and its parking operator.

The aims of this negotiation include:

- Encouraging IP to allow long-duration parking in its facility on Mondays to Fridays for a price equivalent to 4 hours or so of time-based on-street parking on Jalan Sudirman;
- Encouraging IP to open its parking facility earlier than its current opening time, in order to be useful for commuters;
- Recognising that IP would need to manage its parking to direct long-duration (commuter) parking to the middle levels that are currently empty and that IP would not want to allow them to park at the low levels or at the highest levels near the cinema.

Future malls and hotels to be opened in the area

A number of hotels and malls are planned for the CBD area.

Similar negotiations to those with IP will probably be relevant for any large hotels or new malls that may open in the Jalan Surdirman area in the future.

Each is likely to have required parking facilities that are under-utilized during weekday working hours but which are busy on Saturdays and Sundays and perhaps some evenings.

3.4 Update and reminder on other mobility alternatives

Long-duration parking is easier than short-duration parking to shift to alternative parking locations, as discussed above. This is likely to be the most common response to adoption of time-based fees.

This section is about shifting long-duration to alternative mobility options. Note that this is also easier for commuters who park all day than for short-term visitors to the area.

This was mentioned in the July 2012 report. However, in that report, this flexibility was not explicitly linked with Jalan Sudirman.

So this section is a reminder that commuters do have some choices available if time-based fees are introduced so that parking all day in Jalan Sudirman becomes expensive.

TransMusi is gradually becoming a good option that may suit some motorists who currently drive a car. But there are other options too, which will suit some motorists even if public transport remains unattractive to them for now.

These other options include:

- Car-pooling (sharing rides with colleagues from the same direction).
- Motorcycle rather than car (for cheaper parking).
- Being dropped off by a family member or professional driver ('sopir')
- Walking (for very short trips)
- Bicycle may suit some people for relatively short trips
- Becak is an option for some short trips
- Some may make a regular arrangement with a taxi driver if the price of parking is high enough to make this less pricey.
- Valet parking is an option for medium-duration parking and is often associated with certain kinds of business, such as restaurants.

Remember that even if each of these options seems like it would appeal to only a small number of people, together they are a reminder that motorists often do have some flexibility. If parking prices prompt motorists to rethink their options in the hope of saving money, some of them will certainly give such alternatives a try.

3.5 Fact-finding and awareness-raising survey on alternatives

During the May 2013 mission, I was discussing these options and alternatives for long-duration parkers with SUTIP staff. We worried that many commuters to the Jalan Sudirman may not have a high awareness of the various parking and non-parking options that are available to them. Mr Aldi suggested the possibility of a survey of those who currently work in the area. This seems a good idea.

A survey would be especially useful if it both sought information AND helped raise awareness about alternatives to parking in Jalan Sudirman.

Such a survey could have several related goals:

1. To understand which parking alternatives and non-parking alternatives are already known to commuters. This may also reveal additional alternatives.
2. To help make the survey respondents themselves more aware of alternatives (both parking and non-parking) that they may not have considered without being prompted. So the survey plays an awareness raising role, not just an information gathering role.
3. Understand the attitudes held by commuters to the alternatives available. This may help with ideas for improving some of the alternatives. The list of suggested alternatives might also include some alternatives that do not yet exist but which are being considered. So responses about these may provide useful input into the decisions over such alternatives.

The target of the survey should be people who work in the area every day, regardless of whether they drive a car, ride a motorcycle or use some other means of getting to work. So they would be surveyed through their workplaces.

If SUTIP and the Palembang authorities feel that such a survey would be a useful step, then some further effort to design the survey will be needed.

3.6 Don't rush further parking removal

During the May 2013 mission it was apparent that Palembang is keen to modify Jalan Sudirman to extend the footway so that its edge is moved to the line of tree containers. Such a design would be an improvement to the pedestrian realm. However I have some concerns and hope such a plan can be delayed.

My concerns include:

- Such a change would greatly reduce motorcycle parking space, creating a further drastic reduction in parking capacity which will further engender businesses in the street and worsen political problems for the parking changes in progress.

- The parking system in the area is adaptable but does need some time to settle down after the shift to parallel parking. In particular, further changes should wait until after the change to time-based fees under SP2J, which will help ease saturation by giving long-duration parkers more incentive to seek alternatives. Work is also needed to gradually enhance various other alternatives (as discussed above).
- The biggest problem with the pedestrian realm in Jalan Sudirman is not the footways on each side but the difficulty of crossing the road. This change would not improve the street crossing problem.

Similarly, it would probably be wise to wait and learn more thoroughly from Jalan Sudirman's experience before proceeding too hastily to modify parking on other nearby major roads, such as Jalan Veteran.

4 ON-STREET PAYMENTS SYSTEMS, TIME-BASED FEES, PRICE LEVELS AND PRICING SCHEMES

Palembang appears to be making progress towards the implementation of a more reliable parking pricing system in Jalan Sudirman, to be implemented by SP2J.

SP2J reported that it hopes to use digital handheld devices compatible with its own contactless smart card payments system, as used in TransMusi. It hopes to have a cashless parking payments system.

This could allow:

- Low leakage parking payments;
- Time-based fees (such as a price of Rp1000 per 30 minutes) even in the open streets, without the need for a service lane or barrier entries or exits;
- Involvement of many existing parking attendants as employees;
- Convenient payments by motorists.

4.1 Reminder on the Importance of Time-based Fees

I would urge Palembang not to miss this important opportunity to introduce time-based fees in its streets, starting with Jalan Sudirman. The SP2J fees system provides a wonderful opportunity to do so. It would be very unfortunate if the new payments system is introduced without also shifting to a time-based fees.

In the case of Jalan Sudirman the URGENT reason to adopt time-based fees is to enable long-duration parking to be discouraged from parking in the best spaces along the street. This is a big part of the saturated parking problem there, as discussed in the earlier section.

In fact, there are many reasons that charging based on the time used is much better than charging a flat fee regardless of the length of the stay:

- Non-time-based fees are unfair: It is obviously unfair that 15 minutes of parking and 8 hours of parking have the same price!
- Non-time-based fees prevent price increases by making them politically intolerable: Politically, there is a limit to how expensive we can make short-time parking. Unless there are time-based fees, this places a low upper limit on the price for all durations;
- Non-time-based fees undermine the demand management value of price rises: Any politically conceivable non-time-based price will be cheap for long-duration parking. Such prices provide little or no TDM nudge to motorists;
- Non-time-based fees encourage long duration parking: It follows, obviously, that per-parking-event fees encourage parking for long periods. Even a small number of people parking all day can easily fill most of the spaces on a street. But for many busy streets, especially shopping areas, we really want to encourage SHORT parking durations not long ones.
- Non-time-based fees constrain parking management options: The ability to use various more complicated pricing schemes as tools for parking management is lost if per-event parking fees are the only option.

So it really is very important to get time-based fees, especially for on-street parking.

Jakarta is also currently exploring ways to charge time-based fees on-street. Apparently, three different trials are underway or will start soon. One involves the Institute for Transportation and Development Policy (ITDP) in Pasar Baru. This involves the use of smart parking meters, with payments that register license plates and that would probably also enable payment by phone and the setting of time limits. Another involves the Swedish company Calle, with simpler pay-and-display parking meters, to be tried somewhere in the Kelapa Gading area. A third seems to have started already and involves payment by smart phone in the Menteng area. More information about these trials can probably be obtained from ITDP and from the Jakarta Government.

4.2 Why time-based fees make leakage easier to control in principle

This is an additional argument for time-based fees, not mentioned in the previous report.

Even with the current system for parking payments, it would actually be much easier to estimate the parking revenue of a specific parking attendant location if the pricing were time-based, such as Rp2000 per hour.

With the existing prices estimating revenue would require a count of parking arrivals or departures, which is difficult to carry out.

Under a time-based fee all that would be required for a reasonably accurate estimate of revenue is regular occupancy surveys. These are quite easy and cheap to carry out, as mentioned earlier.

The practical obstacles to time-based fees may be lower than usually assumed, at least for Bogor, where it is said that the preman role in parking is a minor problem compared with other cities, such as Jakarta or Palembang.

4.3 Keep on-street pricing schemes very simple

In any shift to time-based prices, it would be advisable to keep the price scheme very simple and avoid complications such as special prices for the first hour or escalating prices.

A simple, single price per hour would be best for ease of understanding and communication. For example:

Cars: 0-30 min: Rp1000 (notice price reduced for very short term parking)
 30-60 min: Rp2000
 60-90 min: Rp3000
 Etc.

Motorcycles: 0-30 min: Rp500
 30-60 min: Rp1000
 60-90 min: Rp1500
 Etc.

4.4 Eventually Make Parking Occupancy the Basis for Price Setting

This is not yet a short term priority.

But, as discussed in my previous report, I suggest that Palembang gradually adopt occupancy as the primary criterion for future price revisions. See also section 4.6 of the July 2012 report. See also information on 'performance pricing' at www.reinventingparking.org.

A simple way to begin on this approach would be to enact a regulation allowing for the price per hour to be adjusted upwards (by a certain increment such as Rp1000 per hour for cars) if the street is measured to be prone to parking saturation ('ruas jalan parkir padat').

Such a criterion, 'locations prone to parking saturation', would result in higher parking prices at locations where full parking is a problem.

A strong reason to do this is for congestion reduction benefits. Such saturated parking often causes road congestion by prompting double parking, searching slowly for parking and reversing for parking.

5 TOWARDS PARKING POLICY SUPPORTIVE OF SUSTAINABLE TRANSPORT

During the May 2013 mission, there were also important discussions on longer-term strategic questions on parking management. This section highlights my main arguments.

Unfortunately, many cities around the world often tempting to adopt short-term parking policies that undermine longer-term progress towards sustainable transport.

Examples include policies that focus too narrowly on overcoming short-term local parking shortages without regard for costs or demand management. Such policies often include subsidies for parking and excessive minimum requirements for parking with buildings. These policies can easily overshoot

and lead to long-term widespread oversupply of cheap parking, which is wasteful of space and resources and subsidizes the least sustainable forms of transport, private motor vehicles.

So it is important that short-term parking policy steps are ALSO steps towards longer-term parking policy that is supportive of sustainable transport.

5.1 Fundamental basics for effective parking management

Palembang, like all Indonesian cities, needs both short-term urgent steps and longer term strategies to build basic parking management capacities. Ideally, both will be consistent with each other and both will be supportive of progress towards sustainable transport outcomes.

The following are essential basics that all cities need to achieve gradually as the basis for effective parking policy.

- **Enforcement** capacity against illegal parking, which requires an appropriate legal and institutional framework to support it;
- **Trustworthy pricing mechanisms** and institutional arrangements with **minimal leakage**;
- **Time-based fees** even for open on-street parking;
- **Setting parking fees** that are based primarily on parking management goals (so that useful revenue is gained but this is only a secondary goal of parking pricing not its primary purpose);
- **Basic parking data collection** capacities (especially parking inventory and regular occupancy surveys of any problem areas).

Unfortunately, these foundations of parking management have severe deficiencies in most Indonesian cities, including Palembang.

In the absence of improvements in these fundamentals of parking management on-street chaos will continue even if off-street parking supply increases, as has been seen in many cities around the world.

5.2 More advanced parking policies for sustainable transport

To go beyond the basics above, to make parking contribute to the development of sustainable urban transport, requires additional parking policy steps.

Some of the most important such policies are the following:

- **Increase the responsiveness of parking prices.** This means enabling prices to rise or fall depending on local parking demand conditions. In locations where parking is in high demand, prices need to be able to rise in response. This should cause demand to ease and supply to be increased in precisely the locations where these adjustments are needed. This is associated with thinking of pricing as primarily a tool for parking management rather than only as a revenue source.

- **Encourage most parking to be open to the public, not private and restricted**, and encourage private parking to be opened to the general public and priced.
- **Avoid government subsidy for new supply, if possible.** Scarce city funds always have much more important and urgent uses than parking. With an efficient pricing policy, an appropriate supply of parking in appropriate locations should become possible without the need for public subsidy.
- **Reform regulations that threaten to create an oversupply of parking.** Examples include the minimum parking requirements. This might sound shocking, since currently the main fear in Palembang is parking shortage, at least in the CBD. But there is indeed a danger of oversupply in areas with significant new urban developments. The experiences of Jakarta, Malaysia, and many USA cities for example, show that rapid development of malls, offices, and hotels (each of which is required to have large supplies of parking), can quickly create an oversupply, which can generate more traffic than the road system can bear and further undermine the competitiveness of public transport.
- **Use parking supply restrictions as a Travel Demand Management (TDM) tool.** In Palembang's case, this is for the future, once the parking system is more strongly managed and once public transport sees some further improvement. This policy involves gradually limiting parking supply in appropriate locations, primarily congested areas with reasonably good public transport alternatives.
- **Finally, it is usually necessary to use parking revenues wisely to make the policies above more politically attractive to stakeholders.** Parking management improvements should ideally go together with visible and popular improvements for pedestrians and others. It is often useful to earmark part of the parking revenue to improve local amenities or to improve public transport. Many cities also make special arrangements for specific groups (such as residents) to win their support for stronger parking management.