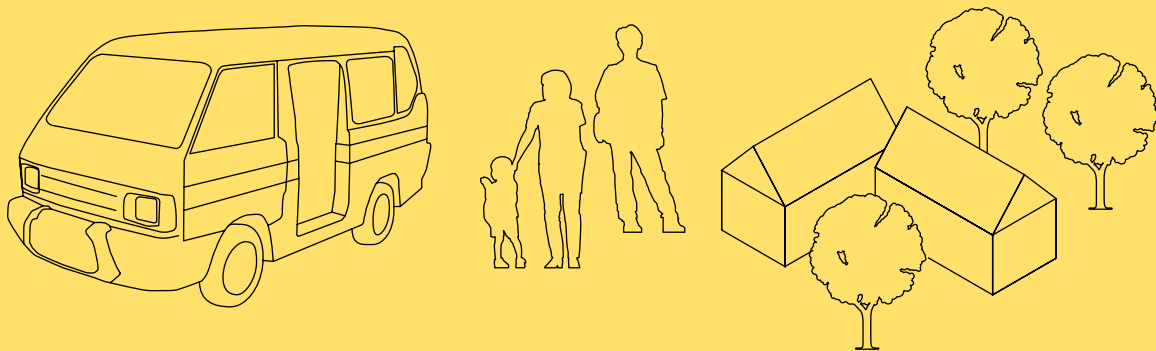


The Angkots of Solo

REPORT ON BATIK SOLO TRANSIT AND ANGKOT INTEGRATION

PREPARED BY YAYASAN KOTA KITA WITH THE SUPPORT OF URBAN LAUNCHPAD

JUNE 2015



The research for this document was prepared in partnership with Urban Launchpad

Authors

Principal Author

John Taylor

Contributors

Erick Guerra, Lily Song

Surveyors

Daniel Heriberto Palencia, Bima Pratama Putra, Rizqa Hidayani, Ardian Pratomo, Tri Rahargo, Mar'ie Abdullah, Unggul Pamungkas, Dhimas Ristiyono, Agung Prasetyo, Zaki Faddad, Reza Rizqi F.H., Ardie Atmaja, Firmandito Adriantoro

Design and Graphic Content

Michael Haggerty, Joyce Lee

Solo:

Jl. Melon Raya no. 53,
Karangasem, Surakarta,
Central Java, Indonesia 57145
Phone: +62-271-710263
<http://kotakita.org/>

Denpasar:

Jl. Tirta Nadi 2 No. 21
Sanur, Denpasar Indonesia, 80227

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1. Executive Summary

Informal transport providers go everywhere in cities. Their flexibility is exactly what makes them so useful to so many people. In Solo, the minivans that ply the roads, transporting commuters and goods to and from markets, and students to school, are called *angkots*. *Angkots* are the subject of this report. *Angkots* are facing decline and are soon to be displaced by the government of Solo's expansion of a networked bus system, called Batik Solo Trans (BST). While these two transport systems are not necessarily in opposition to one another, some government officials see the necessity to replace *angkots* to ensure that the new bus system will succeed.

Angkots serve many parts of Solo where formal transport systems do not reach. They also provide an invaluable service to the poor – flexible and affordable mobility. Their role in supporting the urban poor is little understood, but it is certain that they help connect laborers to jobs, give women and small business owners access to markets, and get students to schools. *Angkots* are also operated by drivers who come from poor backgrounds; they are organized in associations called *paguyuban*. In Solo there are nine *paguyuban* that run the different *angkot* lines in the city, but they have not been organized well, and this is one of the reasons why they have been unable to contest the government's plans.

Kota Kita's research on urban informal systems, such as Solo's *angkot* system, demonstrates some revealing results about little understood features of cities. Such new understandings about the *angkot* system can shape the context of negotiations and policy design – and improve access to mobility.

Spatial analysis methods reveal how much of the city *angkot* lines currently service, far more than the city's BST buses. Mobile surveys of *angkot* passengers demonstrate relatively high levels of satisfaction with *angkots*, and diverse use by a range of groups of people, many of whom are young people. In-depth surveys of drivers show that while lacking consolidated organization and capacity, they display resourcefulness, a willingness to adapt to customer demand, and a desire to improve services where they can.

NGOs such as Kota Kita can help bridge the divide between government and informal service providers.

If governments can engage with informal service providers, such as *angkot* drivers and their associations, together they can find solutions that work for all of society. This is necessary to develop effective, integrated and accessible mobility options for Indonesia's cities.

NGOs such as Kota Kita can bridge the divide between government and informal service providers by facilitating incremental and inclusive approaches; these approaches allow different perspectives to be voiced, achieve consensus, and solve problems creatively. Responding to the ever increasing complexity of urban challenges requires understanding urban informality, and finding ways to work with it.

2. Introduction: The angkots of Solo

The aim of this report is to contribute to improving urban mobility – it does so by exploring how governments can effectively work with informal service providers. Informality, or the informal sector, in this report refers to economic activities that are not taxed, managed, or monitored directly by the government. In Indonesia, the informal sector provides the poor with income, services and employment. It also provides services to businesses and high income groups too. Governments struggle to coordinate actions with informal providers, and criticize these activities as inefficient and creating more problems than they solve.

But in reality, informal sector activities and services arise because there is demand for them. This report argues that if local governments can find ways to effectively work with them, there is great potential to not only improve the lives of the urban poor, but to also extend needed services to all citizens.

One of the problems in doing so is that urban informality is viewed by municipal officials as being oppositional to governments. In other words, informal sector providers are seen as problems and are regarded as opportunistic. There are calls to integrate informal economies into mainstream, or public- or private-sector managed systems, by imposing formal regulations or plans with little dialogue or negotiation with informal service providers. What is often overlooked is

that many governments lack capacity to effectively deliver essential services themselves, or that government solutions and services are often poorly managed.



More incremental and inclusive approaches are required to not only better understand informal urban systems, such as informal modes of transportation, but to also collaboratively design effective policies with informal service providers. Planners must play an important role that promotes inclusion, research, facilitation, and consensus-based problem solving.

SOLO BACKGROUND

The city of Surakarta, also known as Solo, is a “second-tier” city that has been recognized for its inclusive and progressive governance policies. Solo is located in Central Java and has approximately 535,000 inhabitants. It is the home-city of

Angkot drivers in Solo are responding to demand for flexible transportation services.

ABOUT SOLO

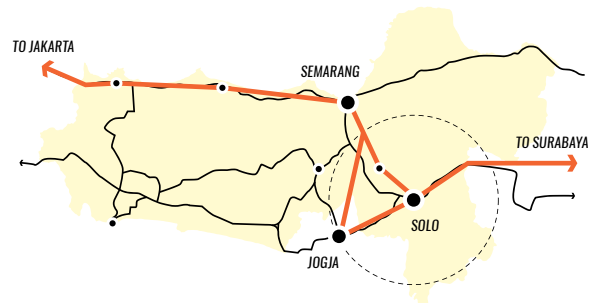
534,498
POPULATION

21%
%HH IN POVERTY

78%
%HH WITH TENURE

LAND

TOTAL LAND AREA	4,600 HA
# OF DISTRICTS	5
# OF NEIGHBORHOODS	51
% RESIDENTIAL	57%
POPULATION DENSITY	116 PEOPLE / HA
% OPEN SPACE	12%
OPEN SPACE PER 1,000 PERSONS	0.96 HA

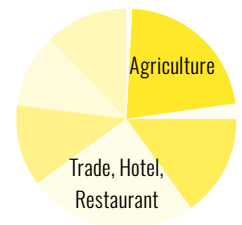


ECONOMIC SECTORS (% OF GDP IN 2009)

AGRICULTURAL & MINING	1%
MANUFACTURING	22%
UTILITIES	2%
CONSTRUCTION	15%
TRADE, HOTEL, RESTAURANT	25%
TRANSPORTATION	12%
FINANCE & BUSINESS SERVICES	11%
OTHER SERVICES	12%

ECONOMIC SECTORS

Manufacturing and trade are the largest sectors in Solo's economy, and small enterprises are important in both of these sectors.



(SOURCES: RPJMD, BAPPEDA GIS, Solo in Figures, www.solokotakita.org)

now-President Joko Widodo, the place where he first served as mayor (2005-2012), and where he implemented a number of innovative governance policies. One of the reasons he was able to do so was administrative decentralization.

Decentralization is important in Indonesia because it has allowed cities throughout the country to act more autonomously, empowering them to implement their own policies and plans. Decentralization began in 2000 through

the national government's ambitious governance reform program known as *Reformasi*.

As a result of decentralization, a new generation of mayors has risen to leadership positions, and have implemented often radically different policies to those developed during the Suharto era. This presents opportunities for the mayor of Solo to experiment with new forms of policy making and urban governance. After the positive experiences of Mayor

Joko Widodo's two terms in office, in which he resolved some challenging issues with street vendors (see Chapter 3), Mayor FX Hadi Rudyatmo has the momentum and precedent to do the same with informal transport operators.

Given that cities throughout Indonesia often struggle with the complexities of informal service providers, such an example would resonate and may inspire change in other locations.

YAYASAN KOTA KITA

Kota Kita is an Indonesian non-governmental organization whose mission is to help people take part in the decisions that shape the cities they live in. The organization promotes thoughtful and inclusive city governance by making information available to the public and facilitating citizen participation and collective action. Kota Kita advocates for innovative and collective approaches to solving urban problems.

With this report, Kota Kita intends to demonstrate the value of in-depth research into informal systems and to challenge top-down processes of urban development that do not involve a wide range of stakeholders.

“The *Angkots* of Solo” begins with a chapter explaining recent events in Solo, providing a backdrop to view the research and conclusions presented within this report. Chapter 3

recounts the recent history of Solo's transportation policy, the culture of governance in the city, and Kota Kita's work. Chapter 4 describes what are *angkots*, and what issues they face, framing these challenges within their recent history.



Chapter 5 shares the results of a survey conducted by Kota Kita about *angkot* riders, providing insights into who rides *angkots*, what they use them for, and where they go. Looking from the other side, Chapter 6 turns to the *angkot* drivers themselves. It covers a how they operate and their own levels of organization, and the implications that their characteristics might have for policy making. Both chapters describe the implications of the analysis on policy making and planning for *angkots* today. Chapter 7 provides a spatial analysis about *angkot* lines, where they operate and opportunities that these lines present. The final chapter shares conclusions about the relevance of the research for planning and policy making.

The Yayasan Kota Kita team conducting a focus group discussion (FGD) with *angkot* drivers in Solo.

3. Background: Opportunities and challenges

There are three areas that provide context to this study – the government of Solo’s initiatives and struggles to respond to traffic over the last eight years, their inclusive and innovative governance approaches aimed at managing informal vendors, and Kota Kita’s own approaches to improving cities through facilitating inclusive processes and policy making.

THE ISSUE OF TRAFFIC IN INDONESIAN CITIES

As one of Indonesia’s most famous heritage cities, Solo is known for its traditional way of life and *becaks* – or pedicabs – plying the streets. But given the fast pace of economic growth in recent years, more cars and motorbikes have been purchased in Solo, and traffic is worsening in the city’s streets, a phenomenon seen in many of Indonesia’s cities. While Solo’s population is officially around 535,000, this is a “night-time” figure — during the day the city swells to an estimated 1.5 million as workers from villages and smaller surrounding cities commute to the city.¹

In response to this trend, Indonesia’s national government took top-down measures to promote public transportation, but its initiative has not been without complications. In 2007, the Ministry of Transportation decided to initiate a Bus Rapid Transit (BRT) system across the country and donated a fleet of new, medium-sized buses to 16 of Indonesia’s largest cities. BRT is a system in which buses travel in dedicated lanes to

avoid traffic. Solo’s city government started the BRT system in 2009 and called it Batik Solo Trans (BST).



New BRT systems in cities such as Solo are providing mobility options, but they are struggling to do so. They face a number of issues, such as a lack of management capacity, lack of profitability, and an over-reliance on government subsidies. At the root lies the difficulty of competing with the increasing popularity of private motorized transport.

The use of motorcycles has increased dramatically in the last 10 years, buoyed by cheap access to credit and the low price of fuel. In Jakarta, for example, there are more than 9 million motorcycles, for a population of around 10 million inhabitants. There are over 78,000,000 million motorcycles in Indonesia today, representing 82% of all vehicles.²

Congestion in Jakarta is a major source of air pollution and lost productivity in the economy.

This leaves the managers of official public transportation in a difficult position. At the same time, the streets continue to become more and more congested. One of the difficult issues is that buses also create competition with existing informal transportation services. Informal transport, such as *angkots*, *ojeks* (motorcycle taxis) and *becaks*, are generally used by the poor. Yet they also service areas of cities that lack efficient formal transportation services.

Due to the low popularity of the bus service and low number of passengers on the government's buses, municipal officials see informal modes of transportation as unwanted competition – and they are now taking measures to remove many of them from the roads. At the moment, informal transportation is not well understood or considered as a viable alternative by many planners and decision makers. Yet given the growing demand for mobility, informal transportation may offer ways to improve, rather than impede, urban mobility.

URBAN GOVERNANCE AND STREET VENDORS IN SOLO

Informality is not just a feature of the transportation sector, it is prominent in the commercial economy too. It is common to see vendors selling an incredible range of products and services – from meals, tailoring, household goods, and car repair – in the streets of every Indonesian city. Policies designed to manage vendors in public spaces can inform efforts to work with them in other sectors.

While many consider informal vendors and providers a nuisance in Solo, another narrative has emerged over the past



10 years. Under the leadership of former-Mayor Joko Widodo, the city government developed a more inclusive approach to managing public spaces in consultation with vendors. This process provides an important backdrop to understanding alternatives to planning with informality.

Informality rose sharply in Indonesian cities following the Asian financial crisis of the late 1990s.³ Solo was one of many urban centers that saw a proliferation of vendors taking over public spaces. In Banjarsari Park, a central public space, around 1,000 vendors installed themselves, causing traffic diversions, polluting the area, and causing concern for neighbors and the city at large. In 2005, Mayor Joko Widodo began to engage these vendors to seek a solution for what was becoming a defining issue for the city. He invited them to 60 different lunches and dinners, often sitting among vendors and talking to them directly, gradually gaining their trust and building a relationship.⁴

Street vendors worked with former-Mayor Joko Widodo to develop an inclusive approach to managing public spaces in Solo.

These engagements helped build the trust necessary to negotiate an effective solution – the relocation of vendors to a purpose-built market in Semanggi, a neighborhood on the city outskirts.

Following concerns that the site was too far away to remain viable, the city government agreed to publicly promote the market using media, connecting the area with roads, improving signage, and offering financial incentives, such as lowering fees for vending booths. Through these efforts, the government oversaw the successful relocation of the vendors through a process of dialogue and incremental policy adjustments. The role of trade associations, local NGOs, and community organizations cannot be understated since they supported mobilization and outreach and ensured that vendors were able to negotiate and articulate their needs as a collective.

The Banjarasari Park relocation case is significant because it demonstrates that working with informal service providers is not only possible, but it can also produce positive gains for both sides. Within a year of their relocation, both the vendors and the government were able to double their revenues.

KOTA KITA'S APPROACH IN SOLO

The third background reference describes the actions of the Solo-based NGO Kota Kita. Kota Kita was founded in 2010



and promotes the participation of citizens and civil society groups in planning decisions in the city. Kota Kita collects neighborhood-level data on poverty, basic service delivery, and health and education, and uses it to analyze the city.

It also makes this information available to citizens and governments, to paint a clear picture of the context of urban development. Kota Kita believes that such information is essential to facilitate planning processes – it gives the public necessary information to make good decisions and supports informed discussion about priority issues. Examples of where this approach has been used are the facilitation of neighborhood planning and for the renovation of the Pasar Gede market.

Kota Kita believes in the inclusive and incremental development of urban policies, through processes that engage stakeholders in debate and consensus building. But at the moment the Solo

Residents use one of Yayasan Kota Kita's tools known as a mini-atlas to plan their neighborhood.

government's Department of Transportation (DISHUB) is pursuing an exclusionary approach that fails to engage with *angkot* drivers and passengers.

We argue that for mobility outcomes to improve and to be effective, they require the collaborative development and management of policies by both informal transportation providers and government; as well as the building of trust and institutional relationships between stakeholders.

Endnotes

¹ Interview with Head of Bappeda Solo, 2012

² Indonesian National Police Traffic Corps (Korlantas Polri) 2012

³ Catalina Gutierrez, "Understanding the Impact of Economic Shocks on Labor Market Outcomes in Developing Countries, An application to Indonesia and Mexico," World Bank Policy Research Working Paper 5283 (2010)

⁴ Majeed, R. (2014). "Defusing a Volatile City, Igniting Reforms: Joko Widodo and Surakarta, Indonesia, 2005-2011."

4. What are angkots?: Invisible and little understood

The term *angkot* is a combination of the words *angkutan* (transportation in English) with the word *kota* (which means city in English). *Angkots* are small minivan vehicles that travel between fixed points in a city, and while they serve as a mode of public transportation, they are operated privately and coordination between owners of different *angkots* is not common.

Operators seek to maximize revenue, so they often fit as many people in as possible. They also replace seats with two parallel benches, and as many as a 12, sometimes more, passengers can crowd into them.

Contrary to popular perception, they do run within formal regulatory and institutional structures, and the Department of Transportation (DISHUB) oversees them. DISHUB operates licenses for certain pre-determined routes, and the *angkot* drivers pay a fee for them.

Angkots have a reputation of driving chaotically – they are often seen swerving to pick up passengers anywhere along the road and passing other vehicles at irregular intervals. In fact, *angkot* drivers are part of organized associations that operate on pre-established lines that are sanctioned by the government. Their associations regulate when and where members drive their vehicles, and the vehicles themselves are numbered, with each number corresponding to a semi-fixed or fixed route.

There is, however, flexibility in how they operate their service. Drivers pick up passengers anywhere along the road, and many deliver passengers to destinations off their official routes. They carry goods and cargo too. *Angkots* are known to



provide flexible fares. When asked what the fare is, the driver may respond by saying “*Terserah*,” literally meaning “It’s up to you,” and deferring to the generosity of passengers to name their price. Such examples demonstrate how the *angkot* service straddles between being formally organized and an informally run service.

A BRIEF HISTORY OF ANGKOTS IN SOLO

Established in 1975, Solo’s first *angkot* line served the route from Jurug market in Jebres to Jongke market in Laweyan, passing through Klewer market in Gajahan. *Angkot* drivers

Angkot drivers are usually supported by a navigator, who also collects fares from riders.

initially used modified pick-up trucks with added roofs and seats (*bemo*) before switching over to minivans a few years later.⁵

In 1980, the local government decided to split the single route into two lines – 01A and 01B. The first line covered the Jongke-Klewer route, but expanded with the addition of a new Pabelan-Klewer route. The second line covered the Jurug-Klewer route and added a Klewer-Palur route.⁶

In 1983, the local government received a grant of 30 double-decker buses from England and Sweden. These buses were subsequently operated by DAMRI, a state-owned bus company, on an inter-city line that ran along Jalan Slamet Riyadi and

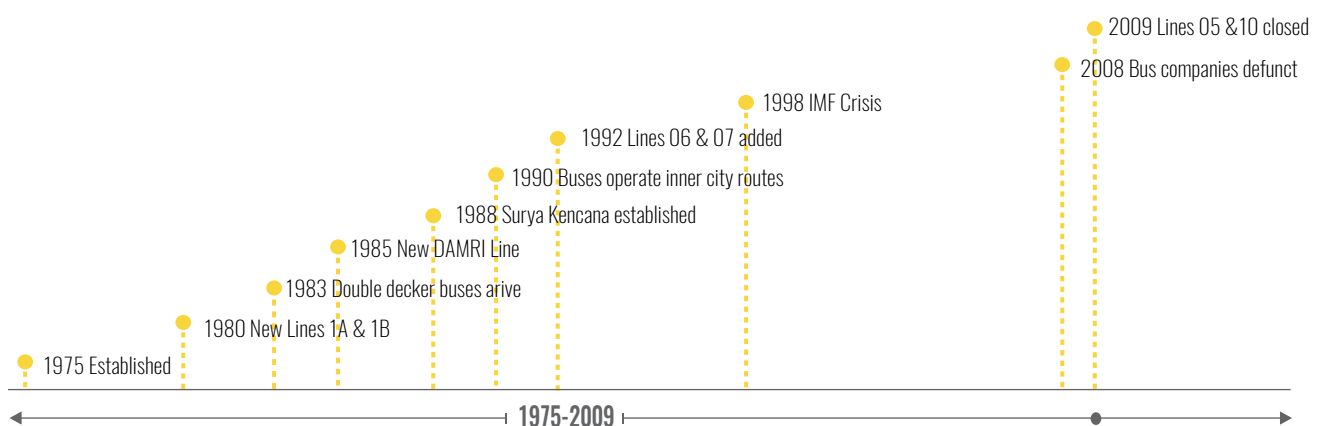
served the Palur-Kartosuro route through the main road in Solo. These services continued until 1998.⁷

In 1985, a new DAMRI line extended from Palur to Kartosuro through Klewer market with medium-sized buses. The DAMRI line had the same end points as *angkot* line 01B, but it took a different route.

In 1988, a new bus company called Surya Kencana began to use medium-sized buses to serve the route between Palur and Kartosuro through Balapan train station and Manahan.

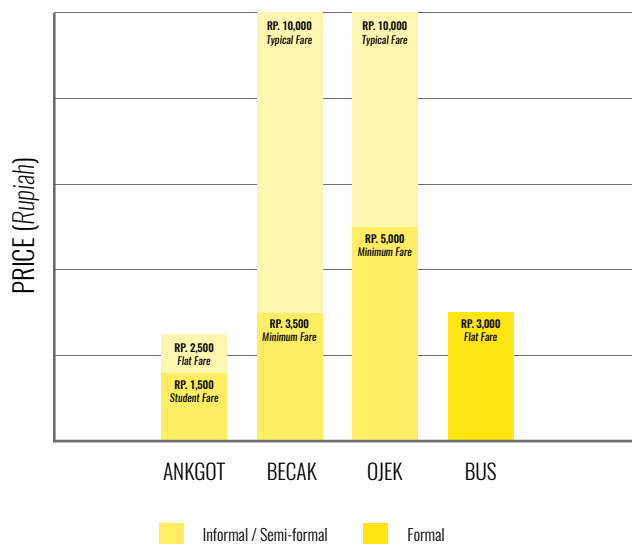
By 1990, several private bus companies were operating inter-city routes. These included: Atmo (medium-sized bus),

ANGKOT TIMELINE



The development of the *angkot* system in Solo has been an ad hoc process unfolding over many years. The sector has taken many different forms of organization over the years.

TRANSIT FARES



(SOURCE: Cities Development Initiative Asia, "Informal Public Transportation Networks in Three Indonesian Cities," June 2011)

which served the route from Palur to Kartosuro through Balapan train station and Purwosari; Nusa, which had two lines from Palur to Kartosuro (the first route was similar to that of Surya Kencana, while the second one went through Singosaren and Pajang; Surya Kencana, which had lines from Palur to Karosuro through Keprabon and Kalitan, from Palur to Kartosuro through Jagalan and Tipes, and from Palur to Solo Baru through Baluwarti.

In 1992, two new *angkot* lines serving Klewer and passing through Pasar Legi appeared, the first line (06) going from Klewer to Kadipiro and the second line (07) from Klewer to Mojosongo. In 1998, seven more *angkot* lines were added. After half a year of organizing rallies and undertaking negotiations with the Surabaya Department of Transportation, the *angkot* drivers obtained new routes and permits. In total, *angkots* were authorized to cover 12 different lines: 01A, 01B, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11.

As the 1998 international monetary crisis triggered the collapse of the Indonesian currency, the *rupiah*, nationwide firm shut downs, job losses, and social unrest, the transportation sector felt resounding effects.

By 2008, private bus companies such as Surya Kencana and SCT, which previously served city lines, were defunct, and some of the *angkots* began to cover their routes and service their passengers. In 2009, *angkot* lines 05 and 10 stopped operating, with the vehicles sold to other lines.

ANGKOTS TODAY

Angkots provide an essential service that connects difficult-to-access and poor areas within the city. The small size of the *angkot* vehicles is well-suited to the denser roadways and fewer passengers than are found on the major roads. By being able to reach poorer communities, often on the outskirts of the city, they are an invaluable way for the poor to access jobs and opportunities.

Today there are nine functioning *angkot* lines, but numbers are down and it is not uncommon to see them circulating

with few or no passengers at all. While invaluable to regular customers – often the poor, people accessing markets, and students –, others complain they are a nuisance. As numbers have diminished, operators have not been able to collect revenue, and this shows in the general lack of maintenance and deteriorated state of the vehicles. It has been years since new vehicles have been purchased.

Among those who are against the *angkots* are the BST bus drivers and some DISHUB officials — *angkots* that overlap with BST lines are seen as taking customers from them. Since DISHUB officials are mostly concerned with the survival of the BST, this is a real concern. But while the formal BST service has to run along pre-selected and planned corridors, *angkot* lines are not set in stone quite the same way. Not only can drivers take detours to deliver customers to their homes, the lines have subtly adjusted over time to accommodate demographic changes.⁸

Many *angkot* drivers feel that the declining demand for their services is the fault of city government itself.⁹ Their business has been hurt by a lack of regulation of inter-city buses that pick up passengers along their routes and compete unfairly; the oversupply of *angkot* licenses that crowds routes (selling licenses generates revenues for the city government); the lack of enforcement of taxi *gelap*, or informal operators who operate outside government regulations; and the lack of parking regulations in the city center. In addition, routes

have been shifted and redirected without prior consultation or engagement with drivers.¹⁰

In order to respond to declining ridership, *angkot* drivers often adapt their service to demand. Those *angkot* lines that may



service markets or schools often have more vehicles working during peak hours, even after hours, but conversely during other times of day service they are less consistent. As a result their schedules vary, and this is a source of frustration for some who seek more regular service.¹¹

One of the problems that *angkot* drivers have today is the lack of a coherent and comprehensive drivers association that can represent their interests and organize them as a collective group. In the past, such a city-wide cooperative did exist. It was called *Roda Sejahtera*, and it served as a financing and intermediary organization that purchased new vehicles for

High school students are major users of *angkots* in some areas of Solo.

drivers.¹² But it was later dissolved in 1998 after having been accused of corruption.¹³ Today, many drivers do not believe in the need for, or capacity of, such an association to reconcile their divergent interests. This lack of organization prevents them from developing proposals or acting together. They are currently organized in nine separate *paguyubans*, which may convene meetings with their members with varying regularity and levels of organization. Between them there is little communication nor consensus about the future of *angkots* in Solo.

With declining numbers of passengers and increasing competition from the new BST system, *angkot* drivers are angry they are being forced out. To add insult to injury, DISHUB has declared that their licenses will not be renewed after 2017, meaning that they will be discontinued. The government's lack of desire to engage meaningfully with them or listen to their needs and complaints only fuels their suspicion and hostility to government.¹⁴

PROPOSALS FOR THE ANGKOT

Efforts to improve mobility in Solo today often look at *angkots* as part of the problem rather than part of a potential solution. The government, through DISHUB, expects that the BRT system will be able to reduce traffic and is pushing forward with its “*Masterplan Transportasi Perkotaan*” (or “Urban Transportation Master Plan”) that it created in 2010. This plan

lays out successive stages of BRT lines as the primary service provider, but also envisages creating a network with *angkots* lines that serve as a feeder system. This proposal arises in



part due to concerns that the *angkots* should not compete with, but rather complement, DISHUB's new bus system.¹⁵

The government's proposal for integrating the *angkots* into the bus system requires *angkot* drivers to first form a single consortium from which they draw a salary and trade their *angkots* as down payments on new vehicles. The drivers would be obliged to pay back loans for a fleet of new vehicles – these would be standardized and be regulated by rules determined by the consortium and DISHUB. In order to enforce this vision, the government announced that existing licenses would not be renewed past 2017,¹⁶ when they are due to expire, effectively

Angkot drivers will typically provide destination-to-destination service for the riders.

leaving *angkot* drivers with little option other than to join or find alternative work. This same approach was used when replacing the city's former bus service with the current BRT system.

Angkot drivers have not responded well to the government's plans to consolidate into a single company. There has been little dialogue or communication to persuade them to soften their views. *Angkot* drivers are also divided.¹⁷ While some are attracted to municipal subsidies and the opportunity to access loans and new vehicles, this view is not shared by them all.

However, many feel that the government's proposal are too onerous in terms of taking out loans, and committing them to the system and its rules. For those accustomed to working independently and without much oversight, the new system is too formal for them to accept.¹⁸

Another consideration is that the government's BST system is not complete as a Bus Rapid Transit system, and at present offers little advantage in terms of service other than have air conditioning and a more comfortable experience.

The BST does not yet have dedicated lanes or alignments that could guarantee service. The government's proposals are thus incomplete and do not necessarily guarantee more profitability to drivers.

SUMMARY

After six years of service ridership of the BST system remains low, there is little evidence to suggest that many people are switching over to use it.¹⁹ There is little to suggest that the BST offers a superior service, in terms of the time it requires to get to a destination.²⁰



The government continues with a hard stance of insisting on imposing its solution with little space for consultation or dialogue.

Given the continued proportional decrease in riders on public transportation overall, the current situation reflects a lost opportunity to develop a city-wide integrated transportation service that works.

Jalan Slamet Riyadi, the main arterial road of the city, is where the most overlaps between BST and the *angkots* occur.

Endnotes

⁵ Interview with *angkot* line 1A drivers association, June 2014

⁶ Interview with *angkot* line 1A drivers association, June 2014

⁷ <https://deberita.wordpress.com/>

⁸ From interviews with *angkot* drivers' associations

⁹ Ibid

¹⁰ From interviews with *angkot* drivers' associations

¹¹ Interviews with Gesellschaft für Internationale (GIZ), Masyarakat Transportasi Indonesia (MTI), and Solo City Department of Transportation (DISHUB) 2014

¹² From interview with *angkot* drivers, June 2014

¹³ Ibid

¹⁴ From interviews with *angkot* drivers, June 2014

¹⁵ Interview with Solo City Department of Transportation (DISHUB) 2014

¹⁶ Interview with DISHUB Solo, June 2014

¹⁷ Interviews with *angkot* drivers, June 2014

¹⁸ Interviews with *angkot* drivers, June 2014

¹⁹ From interviews with Gesellschaft für Internationale (GIZ), Masyarakat Transportasi Indonesia (MTI)

²⁰ Observation by Erick Guerra and Gesellschaft für Internationale (GIZ), and Masyarakat Transportasi Indonesia (MTI)

5. Survey results: Who's riding angkots in Solo

A team of researchers from Kota Kita conducted a survey of *angkot* riders along Solo's nine different *angkot* lines by interviewing more than 900 passengers. The research was conducted between April and June 2014. Researchers gathered information quickly using an Android-based web app called Flocktracker, a tool that administers questions and digitally organizes responses remotely, while researchers are in the field.

THE FLOCKTRACKER PROCESS

Conducting the Flocktracker survey requires four main steps: designing the survey, preparing the Flocktracker app for the survey, collecting the data, and managing the data entry.

1. DESIGNING THE SURVEY

The first step was to design the survey by creating a multiple-choice questionnaire; the questionnaire should include all the questions as well as all the possible answers. We developed 13 questions for the respondents based on the needs of our study, including querying their age, monthly income, mobile phone ownership, where their trip started, where it ends, how often they commuted, the duration of their daily commute, the cost of their daily commute, other available transport alternatives, the other modes that they use, and their satisfaction with the route and mode choice.

2. PREPARING THE FLOCKTRACKER APP

The questionnaire was converted to standard digital format for gathering and sending text called JSON (also known as JavaScript Object Notation). The Flocktracker app interprets

the JSON text and stores it in a digital database called Google Fusion Tables.

Google Fusion Tables are spreadsheets that manage data as it is being collected; this is updated continuously throughout the data collection process. We created a Google Fusion Table account to host our project. The Fusion Table is connected with the JSON-format questionnaire, so that the questions link directly to the database. Once this has been completed it can be downloaded to conduct the survey.

3. CONDUCTING THE SURVEY – COLLECTING DATA USING THE ANDROID APP

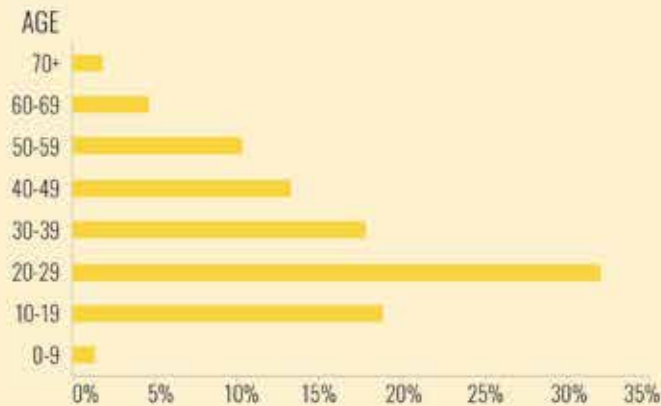
We organized a team of nine volunteer surveyors; each surveyor would conduct around 100 surveys on each of the nine *angkot* lines.

We installed the application in the Android phone of each surveyor and gave a training about how to use Flocktracker. We created a Google account for each surveyor and a Login to connect each surveyor with the database. During the training the surveyors undertook a simulation so that they could feel confident working in the field.

The survey was conducted simultaneously by the nine surveyors. They were given a few weeks to complete the assignment of surveying 100 respondents. The survey was conducted at different peak hours (in the mornings and evening, as well as off peak periods; this allowed some variety of riders). After each questionnaire had been completed the data was immediately uploaded to the database. Flocktracker marked the coordinates of the location it was uploaded from.

ANGKOT USE BY THE NUMBERS

Research Survey Results for 878 Respondents, April-June 2014



SCHOOL AND OTHER

account for 61% of angkot trips



Rp

SEVENTY PERCENT

of angkot riders earn between 500K and 2,500K rupiahs a year

MOTORCYCLES

are the other most commonly used mode of transportation



EIGHTY PERCENT

of angkot riders own cell phones, 67% of those devices are smart phones



50%
Motorcycle



4%
Batik



27%
Bus



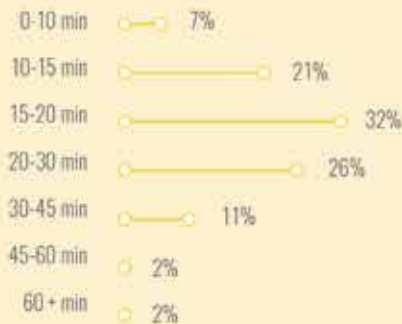
4%
Becak



12%
Bus



2%
Ojek

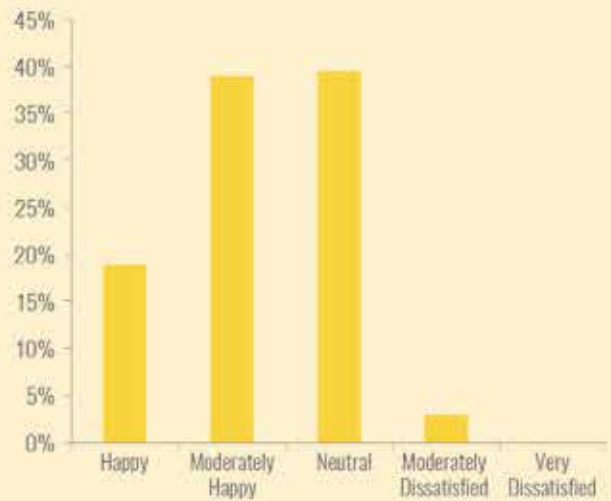


SHORT COMMUTE TIMES

half of all trips take less than 20 minutes

FORTY SEVEN PERCENT

of angkot riders are satisfied with mode choice in Solo



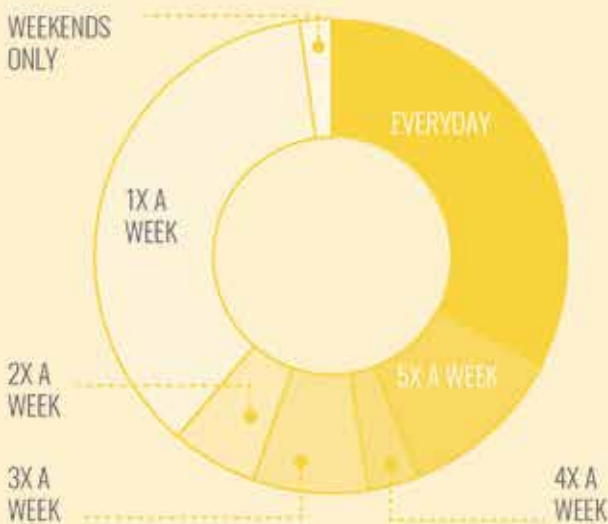
91

ALMOST ALL

angkot trips taken over the course of a day cost less than 10,000 rupiahs per traveler

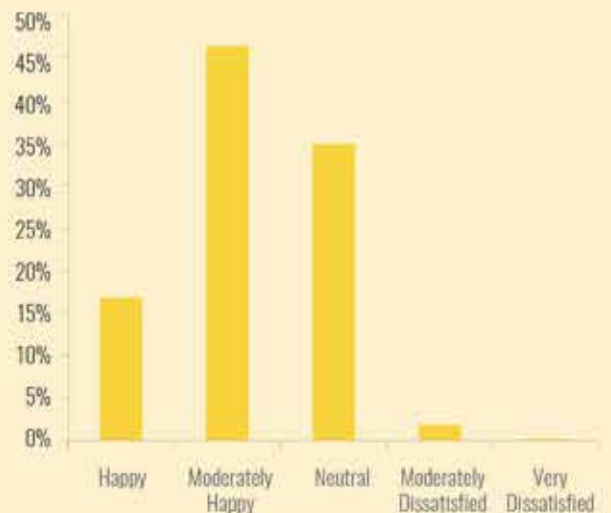
MED-HIGH PATRON SATISFACTION

63 percent of angkot riders are happy or moderately happy about current routes in Solo

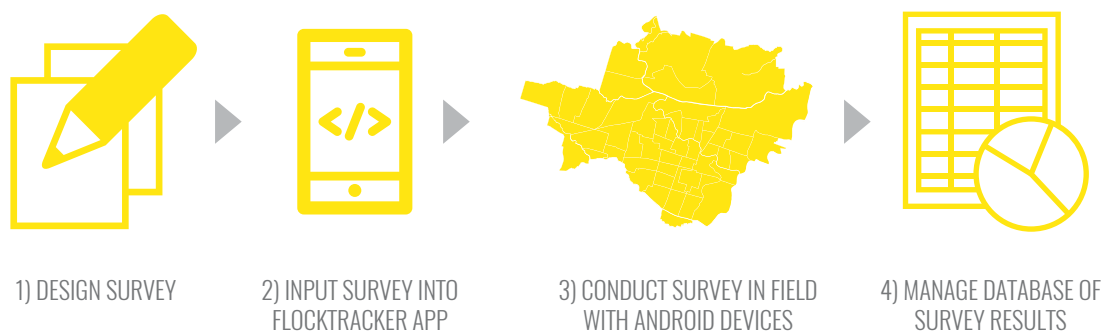


ABOUT A THIRD RIDE EVERYDAY

while others ride angkots once a week on average



FLOCKTRACKER PROCESS



4. MANAGING DATA ENTRY

The project manager could remotely monitor the uploaded data. This allowed oversight over the data collection process. In total, Kota Kita conducted 878 interviews for the nine *angkot* lines.

Once the survey was completed, data was converted to an Excel table so that it can be further analyzed. Coordinates from the location of each survey can be converted into a digital file to be used for spatial data analysis. In this case they were used to trace the *angkot* lines and visualize their routes in the city.

MAIN FINDINGS

The Flocktracker survey resulted in five main findings from data collected from *angkot* riders:

ANGKOT RIDERS USE MULTIPLE TRANSPORT MODES IN A SINGLE TRIP



Angkots are already integrating people's mobility with a range of other options to get around the city. Some 44% of respondents said that they used a motorcycle during the same trip as their current one, with a further 3% saying they used a motorcycle taxi.

This means that *angkots* are already playing an integral role in enabling people to transfer across modes of transportation and reach their destinations in the city.

However, the percentage of passenger journeys combining BST and *angkots* are relatively low. Interestingly, very few

transferred across to the BST (4% combined with BST and *angkot*). Some 25% reported walking or using just the *angkot*.

MOST USERS ARE POOR



Angkots are providing a very valuable service — they provide mobility to the poor. More than 47% of users of *angkots* come from households below the poverty line (as defined

by the government's TKPKD poverty unit, earning less than 1,000,000 Rupiah a month).²¹

This demonstrates that *angkots* are already an important means for the poor to access jobs and services in the city. Many neighborhoods where the poor live are themselves isolated, so this service makes the city more accessible to them. Thus, the service promotes inclusivity and equity in urban transport.

THE USERS ARE DIVERSE



Angkots are disproportionately used by women and students, while serving a diverse range of people. The survey revealed that 56% of interviewed riders were women,

while almost 30% were school-going age.

More than 70% of riders interviewed were of working age. This means the service responds to diverse mobility needs of society, and is appealing to minority groups as well as the general population.

THE SERVICE IS FLEXIBLE AND VARIES WITH DEMAND



Angkots are used for diverse purposes, such as for getting to school, going to the market to buy supplies, or going to work. Some 24% of riders used the service to go to school, and another 24% for work. The rest used the service for recreation, shopping, and other uses.

RIDERS ARE SATISFIED WITH THE SERVICE



The majority of people are satisfied with the transportation choices and *angkot* routes in Solo. More than 57% said they were happy or extremely happy with the mode of transportation — indicating that the options of BST, buses, *angkots*, and others are able to satisfy their needs. In terms of the *angkot* routes, 63% of riders reported being happy or extremely happy. This indicates that the majority of people are satisfied with the existing routes and the way *angkots* service their needs.

ANGKOTS ARE A NICHE SERVICE



Public transportation use in Solo is low. Even during peak hours on major corridors — the time and place where transit is most competitive with cars or motorcycles — less than 10% of travelers use *angkots*, regional buses, or the BST, Solo's three forms of transit. Of these trips, furthermore, 80% are on the large regional buses. *Angkots* serve just a half percent of peak hour, peak direction trips.

IMPLICATIONS FOR PLANNING AND POLICY-MAKING

REPLACING ANGKOTS WITH BST WILL HAVE LIMITED BENEFITS FOR TRANSIT USERS



BST offers similar travel speeds and frequencies to the *angkots* that operate on the same routes. In informal intercept interviews with people on the BST, many passengers indicated that they took a BST or *angkot*, based on whichever arrived first. Although they preferred the comfort of the larger, newer BST vehicles, this benefit was not worth waiting for the next vehicle to arrive. Government planners should bear this in mind when seeking to discontinue *angkot* services in favor of an extended BST service.

REPLACING ANGKOTS UNLIKELY TO GROW RIDERSHIP



Most *angkot* users have other options. Not only do many riders transfer from other modes, including motorcycles, in surveys, 50% of *angkot* users listed a motorcycle as their primary alternative to taking the *angkot*. Only 10% of users of line 01A, the line most overlapping with the BST, indicated that the BST as the primary alternative. It is thus likely if *angkot* service were discontinued that riders would switch to motorcycles, not the BST or regional buses. This is relevant because transportation policy makers and planners should consider that the BST and *angkots* are not necessarily mutually exclusive, as motorcycles potentially trump both if service does not meet their expectations.

IDENTIFYING AND SUPPORTING MOBILITY AND ACCESSIBILITY SOLUTIONS THAT WORK



Angkots serve diverse members of the public, including women, students, and the working population. They operate in areas that are underserved by BST and other modes of “official” public transport, providing mobility and accessibility to essential urban goods, services and places. Moreover, their flexible payment schemes, in some cases based on relationships of trust with passengers, accommodate the needs of low-income and other marginalized groups. Despite low overall ridership, *angkots* play an integral role in the city’s transportation system, particularly with respect to enhancing inclusivity and equity. Instead of the government’s current policy of phasing out the nine *angkot* lines by refusing to renew their licenses, it is important to find ways to support *angkots*, improving service and increasing satisfaction amongst passengers.

Identifying strategies to increase the capacity of the *angkot* system, by promoting the routes using signage, better scheduling, and more legible route maps; or increasing the institutional capacity of the drivers and their associations, by improving the management capacity of the associations, introducing saving schemes and technology, may also improve income and service quality. Doing so could mean that more passengers would be inclined to ride *angkots*.

Endnotes

²¹ Tim Koordinasi Penanggulangan Kemiskinan Daerah (TKPKD) Regional Poverty Alleviation Coordinating Team, 2014

6. Profile of angkot drivers: A flexible sector

In order to better understand the *angkot* system in relation to the informal providers, the drivers, Kota Kita conducted nine interviews with each of the drivers' nine associations, or *paguyubans*, as well as in-depth interviews with selected drivers individually.²²



surrounding metropolitan area operating in the center city, shifting of *angkot* routes without prior notice or consultative engagement, lax parking regulations in the center city, and national fuel subsidies.²³ Nonetheless, the *angkot* system has survived, as drivers have experimented with customizing their

service to passengers, built dependable relationships with them, modified their vehicles, and offered flexible service. The results show a remarkably resilient system.

ORGANIZATION IS A STUMBLING BLOCK



In terms of organization, *angkot* drivers in Solo are currently diffuse and fragmented, but this does not mean that they are unwilling or incapable of being organized. Drivers had a very bad experience with organizing a

city-wide cooperative called “*Roda Sejahtera*” (or “Prosperous Wheels”), which eventually met dissolution. The cooperative was founded in 1992 and helped finance the purchase of new vehicles and their maintenance. But members lost the trust of the board and it was dissolved in 1998 due to corruption. Members have cited widespread distrust of those that ran the citywide association that took advantage of them, despite still believing that a cooperative could be a viable solution. Today, each of the nine *angkot* lines is organized as a *paguyuban*. Some of these are highly organized and active. The *paguyubans* of Lines 3, 6 and 8 conduct regular

MAIN FINDINGS

ANGKOTS ARE HIGHLY ADAPTIVE AND RESILIENT



Angkot drivers have survived with very little investment and government support. In fact, certain policies have threatened their businesses for a long time, such as: the overprovision of *angkot* licenses on the same routes, underregulation of rogue operators (i.e. taxi *gelap*), failed oversight of inter-city buses from other cities in the

Angkot drivers are always experimenting with how to deliver services to the riders.



often hire out their vehicles for private functions in the evenings and at other times outside of regular operating hours, deriving additional incomes.²⁵ As this is a very important source of revenue for them, it is key that they own and maintain discretion over the use of their vehicles when not working. Another example is that in cases where customers are unable to pay for their rides, they are allowed to ride for free or on credit.²⁶ Flexible payment systems demonstrate the trust and strong relationships that drivers

monthly meetings, have a reserve of funds for maintenance and operational needs, and a savings scheme for members in need. Others are less organized, such as Lines 1A and 7, but that is not representative of them all.²⁴

Given the example of the importance that trade associations played in negotiating the successful relocation of vendors during former-Mayor Joko Widodo's tenure, establishing an organized drivers' association is important. Currently, drivers are fragmented. They require assistance in defining shared goals and coordinating collective action.

FLEXIBILITY IS KEY



Flexibility is an essential quality for *angkot* drivers. They have developed service solutions that promote their livelihoods and economic security and meet the needs of their ridership. As an example of flexible approaches to service, *angkot* drivers

have cultivated with customers. Such management flexibility allows *angkot* drivers to adjust their service to demand, but conversely decreases the consistency of their service.

IMPLICATIONS FOR PLANNING AND POLICY-MAKING

DIALOGUE IS MISSING AND IS URGENTLY NEEDED



As the case of vendor relocation from Banjarsari demonstrates, there is an urgent need for dialogue between *angkot* drivers and the government. Street vendors and *angkot* driver groups are both traditionally marginalized from decision-making processes in the city and feel frustrated by government policies that exclude and discriminate against them. At times these frustrations may boil over into street protests, partly because drivers feel they have little to lose and no other way to get government attention. This makes

Angkots also have a key economic role in Solo as transporters of durable goods between commercial areas.

opening up dialogue with *angkot* associations important. Doing so can establish a means to negotiate and formulate policies that are mutually beneficial. Such dialogue can be facilitated by intermediary organizations, such as Kota Kita, but both sides must agree to be open and build trust in order to find viable solutions.

SOLUTIONS SHOULD BE FLEXIBLE AND OPEN



The government's current proposals are burdensome and binding for *angkot* drivers, as they require them to take out significant loans and invest in their vehicles, but deprive them of the flexibility that they need to remain economically viable. As with many informal sector businesses, operators may only receive income sporadically or with very tight margins; they may also require flexible income strategies in order to cope with limited capital and challenging economic burdens. For this reason, informal sector operators struggle to enter into formal loan agreements that are difficult to renounce and are inflexible. Thus, viable solutions should prioritize flexible arrangements and offer multiple choices can evaluate which best accommodates their needs.

SOLUTIONS SHOULD BUILD ON THE EXPERIENCES AND EXPERIMENTAL CAPACITIES OF ANGKOT DRIVERS



Angkot drivers have succeeded in maintaining their livelihoods and serving their customers through years of institutional neglect and even mismanagement by the city government. They have done so by being highly adaptive,

making incremental improvements, and experimenting with changes that respond to their shifting circumstances. *Angkot* drivers are more likely to support and participate in BST-*angkot* integration if they are meaningfully engaged in a way that values their contributions and suggestions and produces tangible results.

Endnotes

²² All interviews were conducted in June 2014, with each of the nine paguyubans. Each one is named after the number of the line eg. Paguyuban 01A, Paguyuban 02, etc.

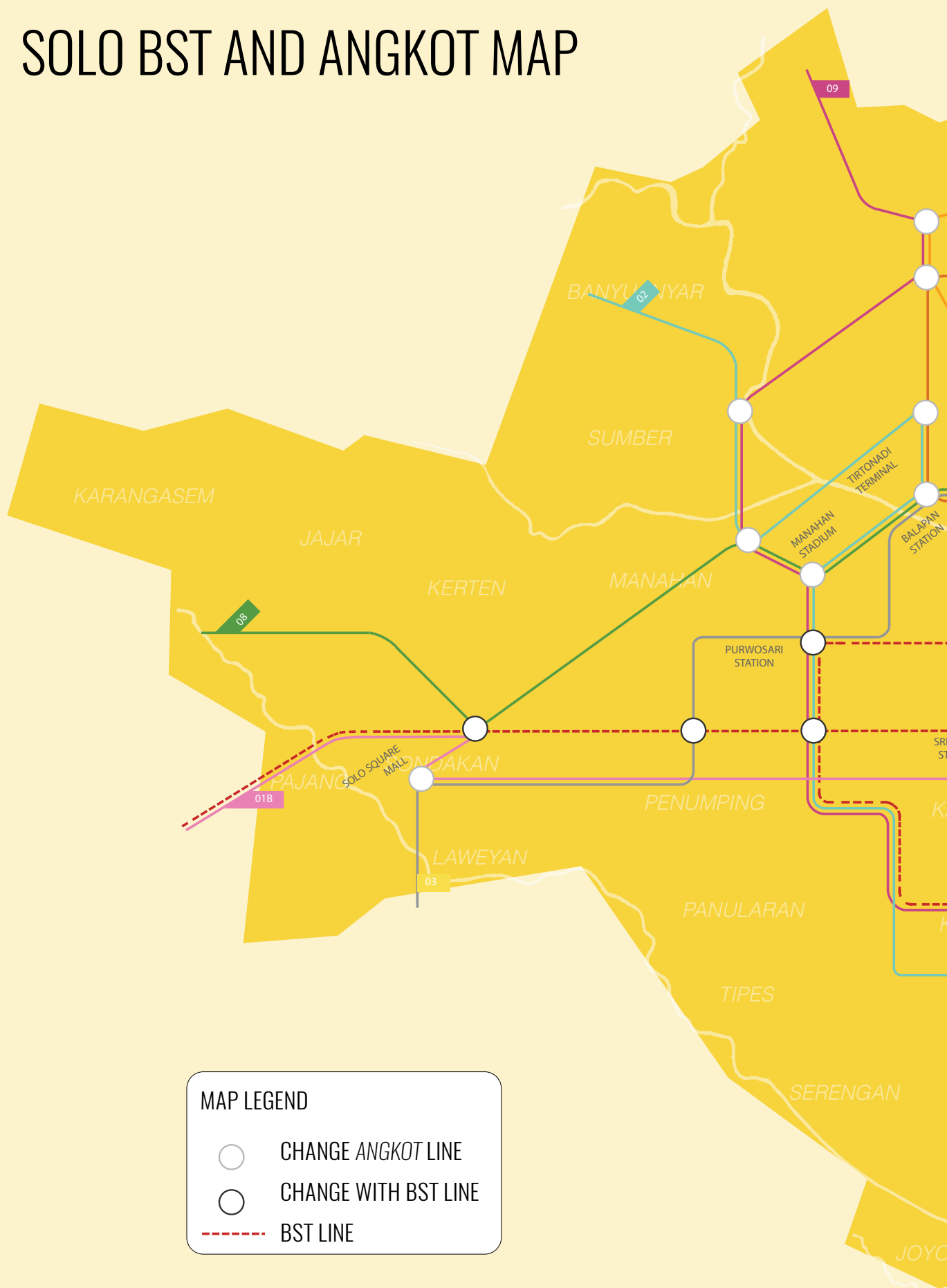
²³ From interviews with *angkot* drivers, June 2014

²⁴ From interviews with *angkot* drivers, June 2014

²⁵ From interviews with *angkot* drivers, June 2014

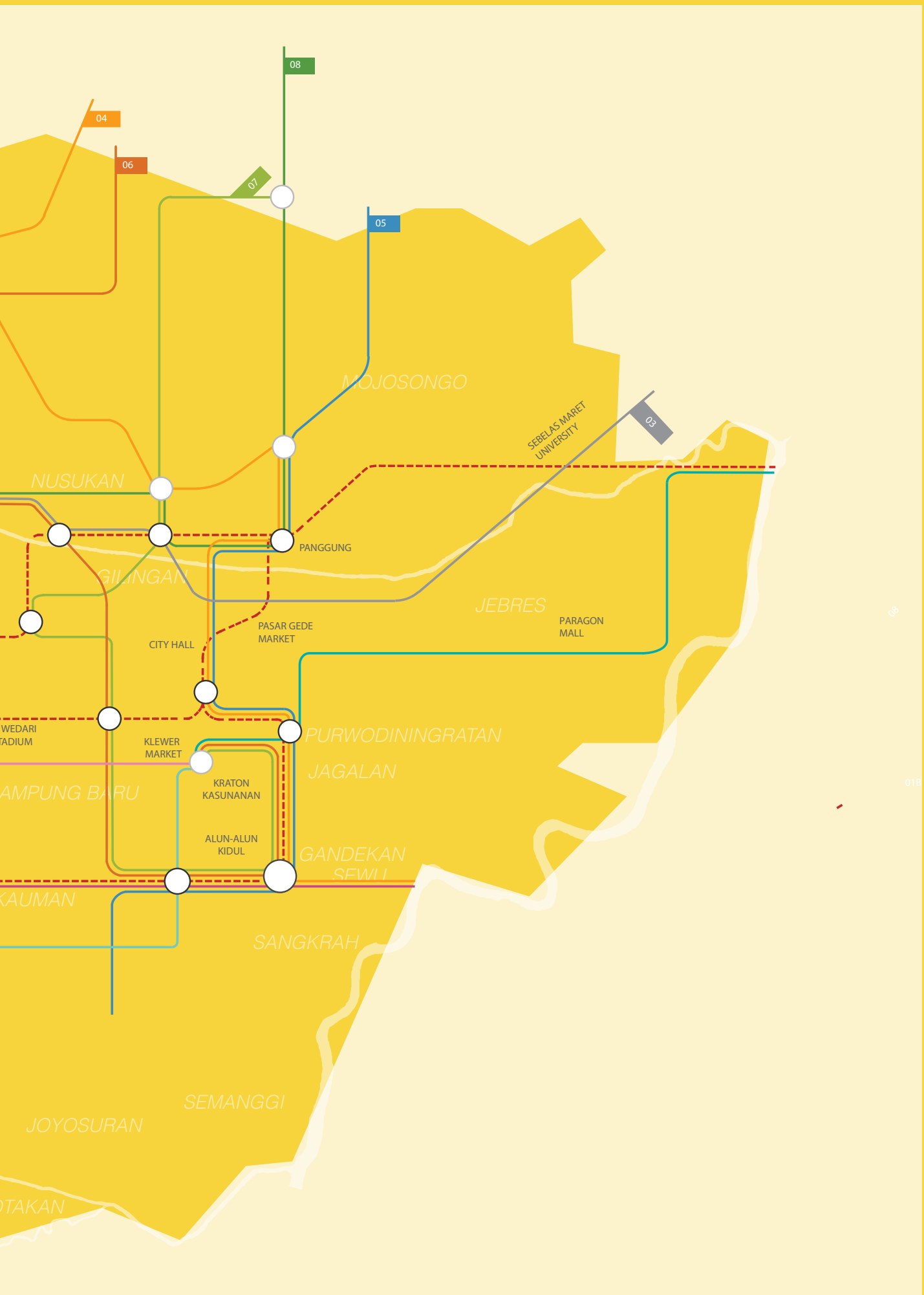
²⁶ From interviews with *angkot* drivers, June 2014

SOLO BST AND ANGKOT MAP



MAP LEGEND

- CHANGE ANGKOT LINE
- CHANGE WITH BST LINE
- BST LINE



09

018

7. Spatial analysis: Angkots and urban mobility

A spatial analysis of the *angkot* system was undertaken in order to visually describe how the *angkot* lines circulate around the city, demonstrate the variations that exist along the nine different routes, and make a preliminary comparison with the BST line.

The spatial analysis used a combination of different data sources: the survey of *angkot* riders, mapping of each *angkot* route using handheld cell phones that geo-tracked each of the nine *angkot* lines, and Kota Kita's own RT-level citywide database.

EXISTING CONDITIONS

The *angkot* system currently services an array of neighborhoods with varying socio-economic profiles. These *angkot* routes were mapped across eight neighborhood metrics, including: health, economy, education, public space, density, poverty, youth, and vulnerability. These indices serve as general proxies for the quality of life in an urban setting.

From Kota Kita's initial mapping, it is clear that Solo offers its residents an abundant amount of public resources, including over 100 health-related facilities, 43 markets, 450 schools, and 180 designated public spaces. However, access to these facilities can be challenging. The spatial analysis identified the following issues with the current system:

AXIAL VERSUS RADIAL ORGANIZATION OF ROUTES

The current BST system runs primarily on an east-west axis, through the center of the city with a few lines reaching areas the northern and southern neighborhoods in the city. In

comparison, the *angkot* routes extend more radially, reaching the northwestern, northeastern, and southeastern areas of the city where there are greater instances of poverty or high population density.

While the locations where BST and angkots overlap may in fact be centers of activity, no planning is in place to enhance these areas with appropriate infrastructures such as street striping and curbs, exterior furnishings, signage, or lighting.

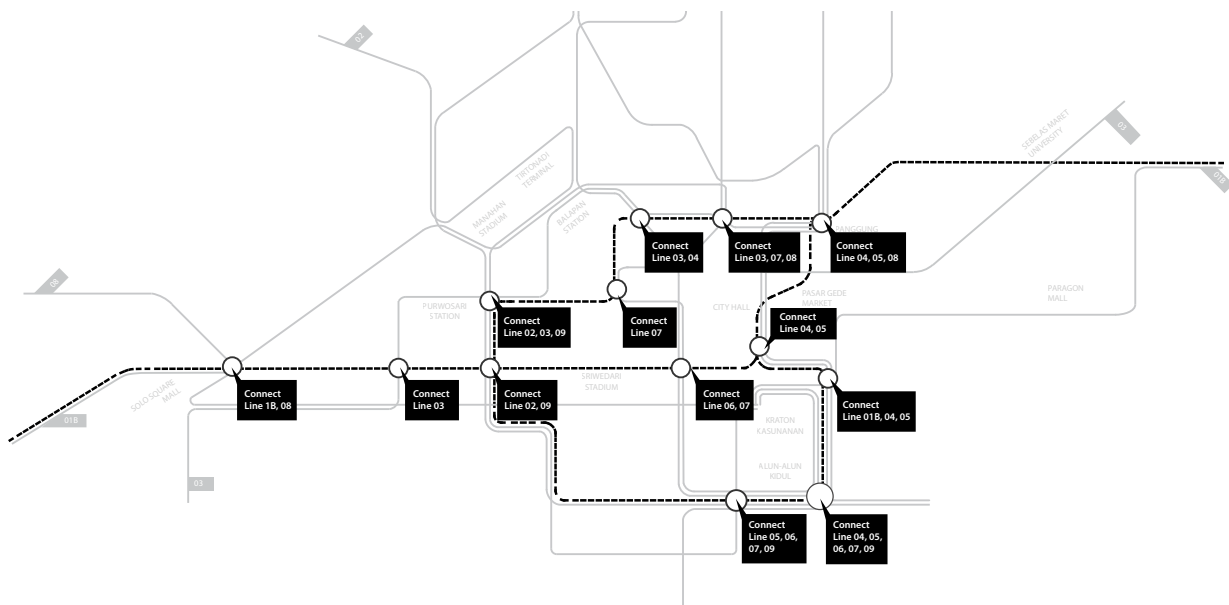
INEFFICIENCIES WITHIN SYSTEM RESULTING FROM OVERLAPPING ROUTES

Together, the BST and *angkot* systems can provide for a greater spectrum of users. However, the BST and *angkot* system would require streamlining its network in order to reduce traffic congestion, limit route redundancies, and improve efficiency.

LACK OF PLANNING WHERE BST AND ANGKOT ROUTES CONVERGE

The locations where BST and *angkot* routes intersect offer opportunities for users to switch between systems and

WHERE BST AND ANGKOTS OVERLAP



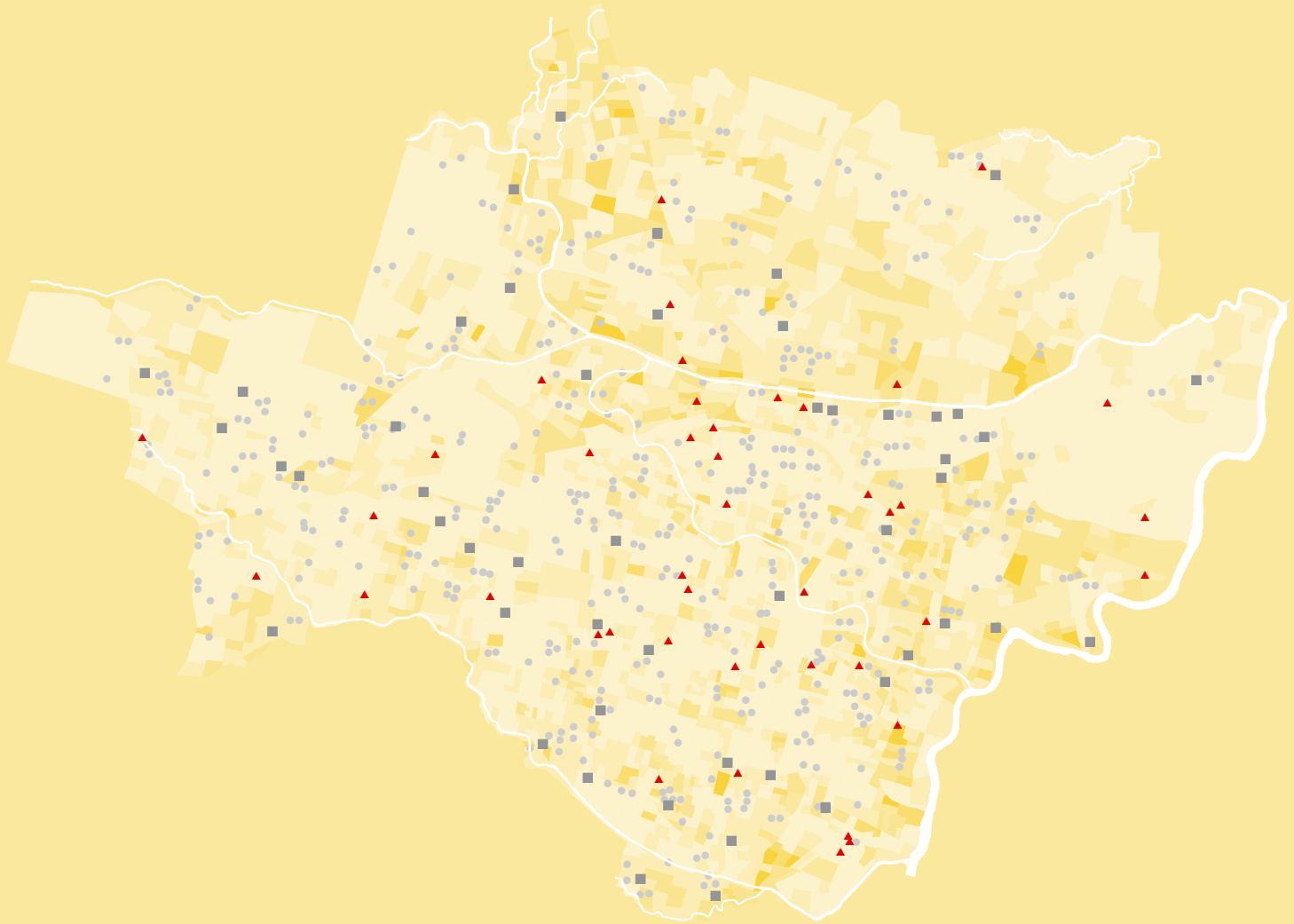
While there are numerous locations where BST and *angkots* overlap, these areas are not planned in any way to take advantage of these intersections.

optimize their use of formal and informal public transportation. However, where these intersections occur in the city is incidental, and not the result of strategic planning. While the locations of the intersections may in fact be important centers of activity, such as markets, no planning is in place to enhance these area with appropriate infrastructures such as street striping and curbs, exterior furnishings, signage, or lighting.

Nor have these areas been studied to determine whether these locations are the best for intermodal transfers with respect to user experience and the city's urban development goals.

This spatial analysis has highlighted the intersections of BST and *angkot*, but this map is extremely preliminary since further transportation planning study is required.

ACCESS TO FACILITIES AND IMPOVERISHED NEIGHBORHOODS



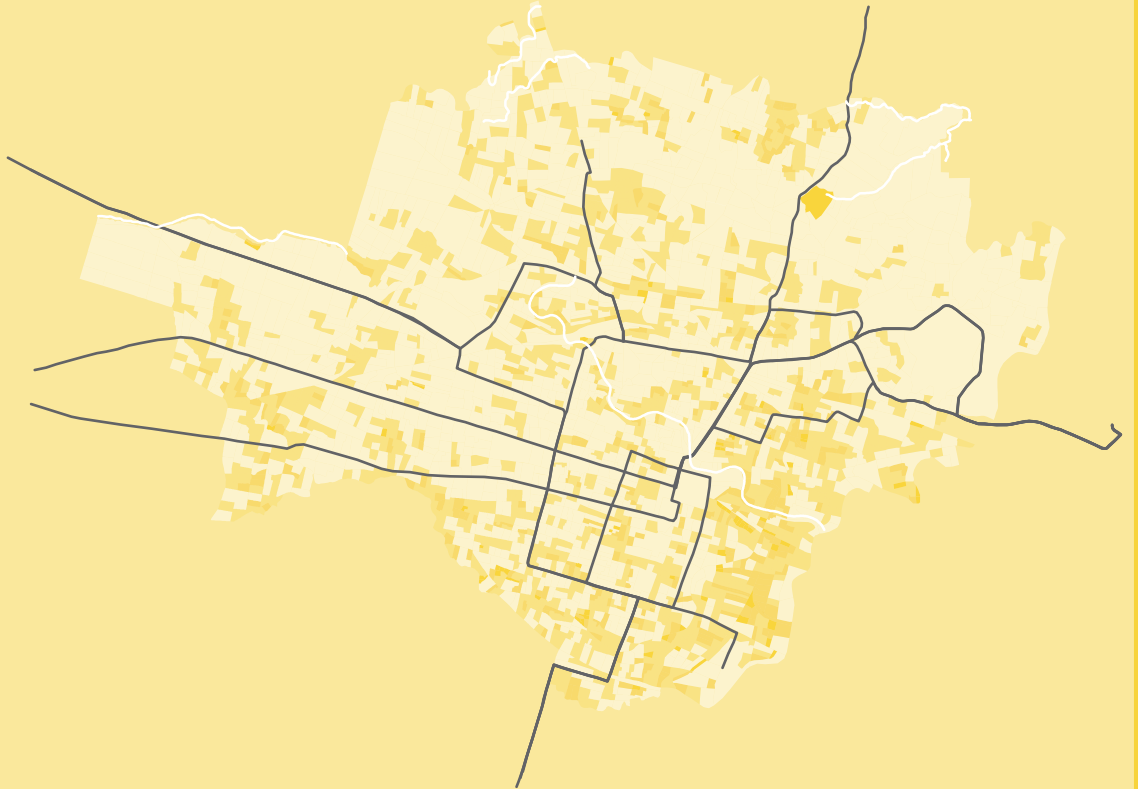
MAP LEGEND

- HEALTH FACILITIES
- ▲ MARKETS
- SCHOOLS

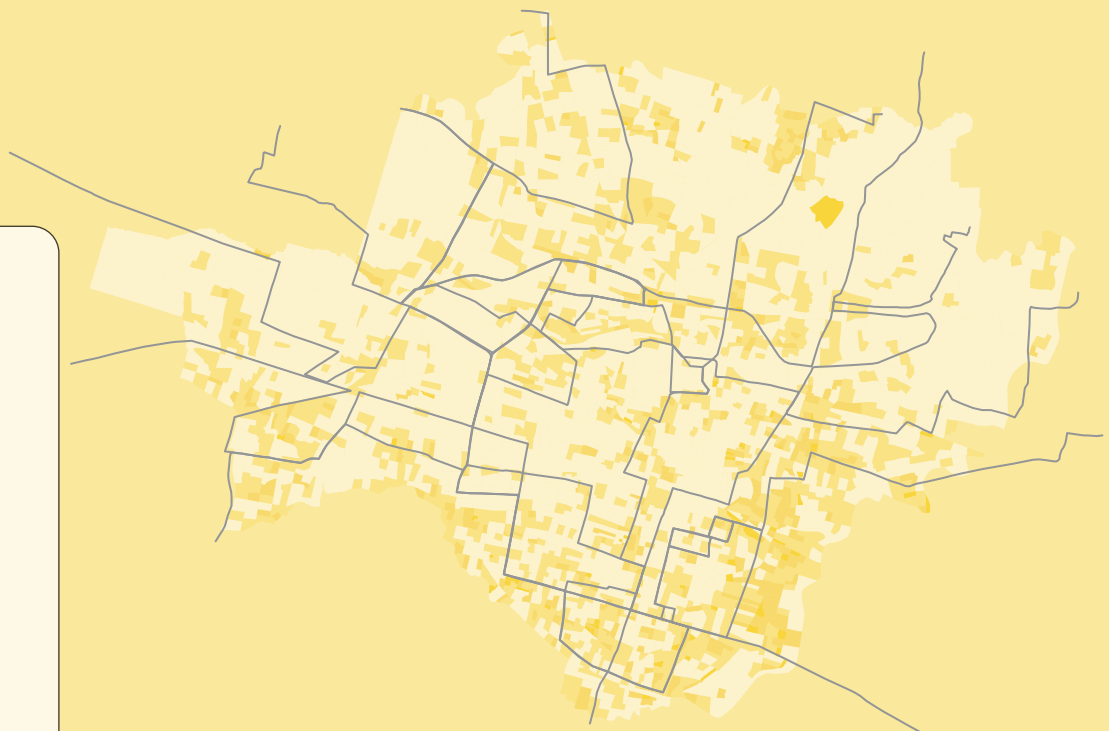
POVERTY

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

NEIGHBORHOOD DENSITY AND ACCESS TO BUS ROUTES



NEIGHBORHOOD DENSITY AND ACCESS TO ANGKOT ROUTES



MAP LEGEND

- BUS LINES
- ANGKOT LINES

DENSITY

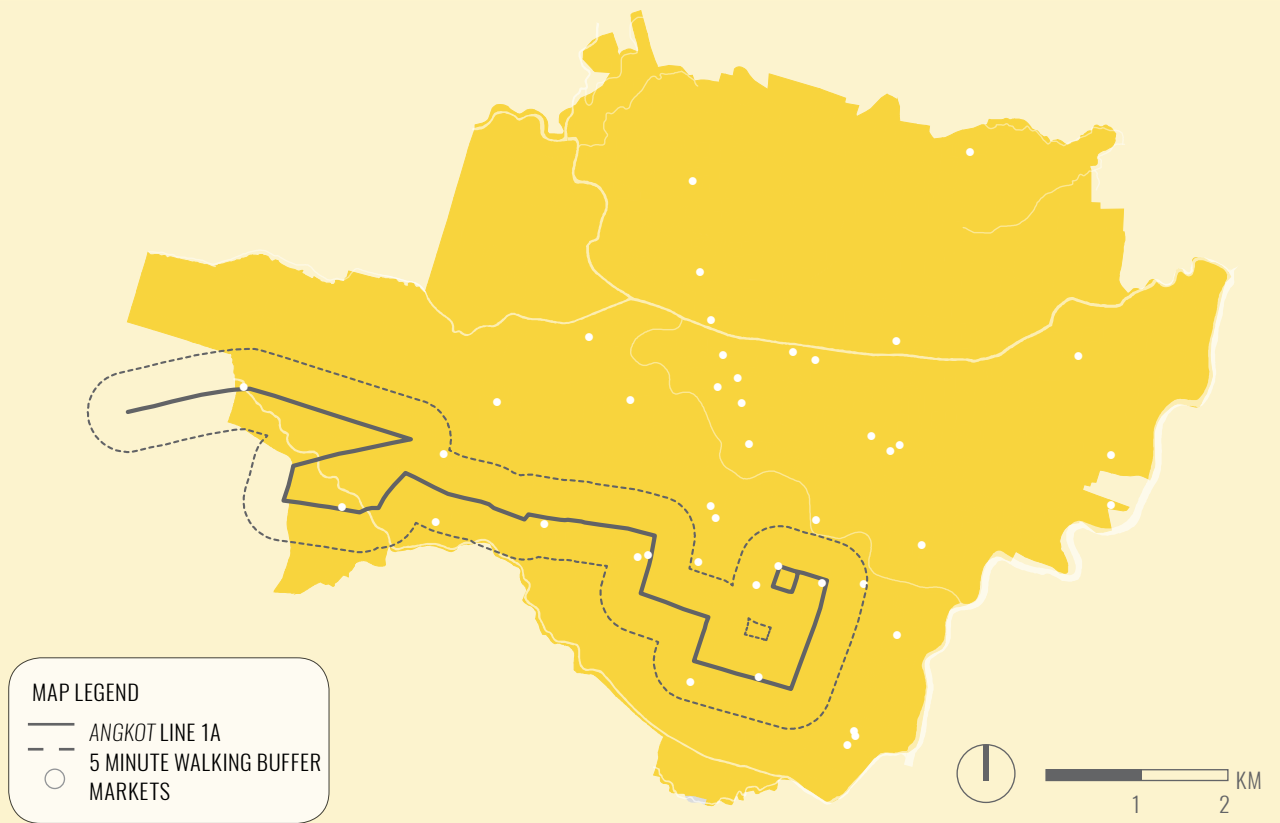
- 0-135
- 136-275
- 276-535
- 536-1,390
- 1,390+

ANGKOT ROUTES COMPARISON

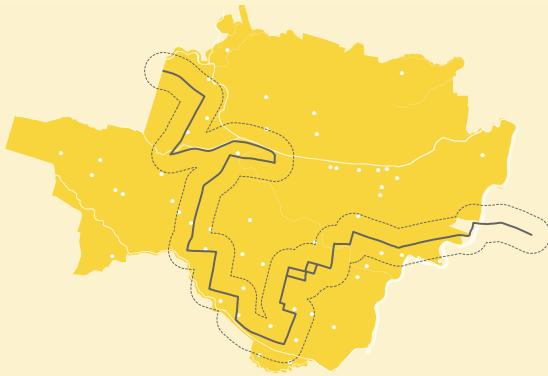
CATEGORY	LINE 1A	LINE 1B	LINE 2	LINE 3	LINE 4
HEALTH (OUT OF 102 CLINICS, HOSSPITALS AND HEALTH FACILITIES, HOW MANY ARE WITHIN A FIVE MIN WALK OR 400 M)	22	36	30	14	24
PERCENT ACCESSIBLE	22%	35%	29%	14%	24%
ECONOMY (OUT OF 43 MARKETS, HOW MANY ARE WITHIN A FIVE MIN WALK OR 400 M)	13	16	10	15	16
PERCENT ACCESSIBLE	30%	37%	23%	35%	37%
EDUCATION (OUT OF 457 EDUCATIONAL FACILITIES, HOW MANY ARE WITHIN A FIVE MINUTE WALK OR 400 M)	116	162	124	142	113
PERCENT ACCESSIBLE	25%	35%	27%	31%	25%
PUBLIC SPACE (OUT OF 189 PARKS, FIELDS, GARDENS AND OTHER DESIGNATED OPEN SPACES, HOW MANY ARE WITHIN A FIVE MINUTE WALK OR 400 M)	18	66	50	36	36
PERCENT ACCESSIBLE	10%	35%	26%	19%	19%
DENSITY OUT OF 1449 BLOCKS OVER THE NATIONAL AVG OF 136	385	609	424	349	487
PERCENT ACCESSIBLE	27%	42%	29%	24%	34%
POVERTY (OUT OF 696IMPOVERISHED BLOCKS-- MEASURED BY 33% OR MORE OF THE POPULATION UNDER THE POVERTY LINE-- HOW MANY HAVE ACCESS TO A STATION OR AN ANGKOT WITHIN 5 MIN OR 400 M)	132	310	208	190	223
PERCENT ACCESSIBLE	19%	45%	30%	27%	32%
YOUTH OUT OF 151 TRACTS WITH OVER 33% CHILDREN	33	54	44	30	44
PERCENT ACCESSIBLE	22%	36%	29%	20%	29%
VULNERABLE/DISABLED (OUT OF 1360 CENSUS TRACTS WITH SOME PERCENT OF A DISABLED POPULATION, HOW MANY ARE WITHIN A 5 MINUTE WALK OR 400 M)	330	486	365	335	424
PERCENT ACCESSIBLE	24%	36%	27%	25%	31%

LINE 5	LINE 6	LINE 7	LINE 8	LINE 9	LINE 10	ALL ANGKOTS
26	20	14	22	34	2	92
25%	20%	14%	22%	33%	2%	90%
10	16	10	13	9	7	42
23%	37%	23%	30%	21%	16%	98%
91	119	89	102	114	58	432
20%	26%	19%	22%	25%	13%	95%
18	34	30	46	58	25	175
10%	18%	16%	24%	31%	13%	93%
323	427	290	269	425	151	1357
22%	29%	20%	19%	29%	10%	94%
140	203	117	145	205	78	643
20%	29%	17%	21%	29%	11%	92%
30	35	32	39	50	20	145
20%	23%	21%	26%	33%	13%	96%
284	344	247	290	413	126	1280
21%	25%	18%	21%	30%	9%	94%

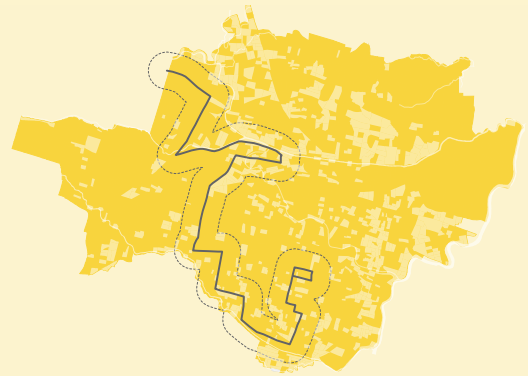
LINE 1A - CONNECTS CITY MARKETS



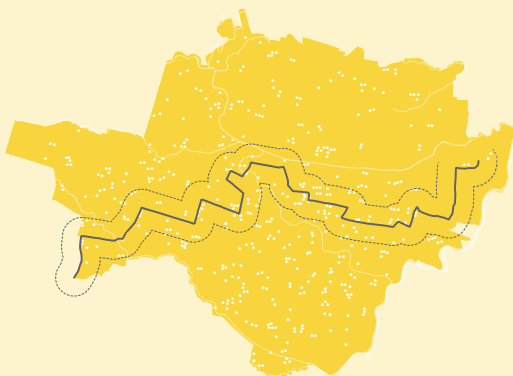
LINE 1B - CONNECTS HEALTH FACILITIES



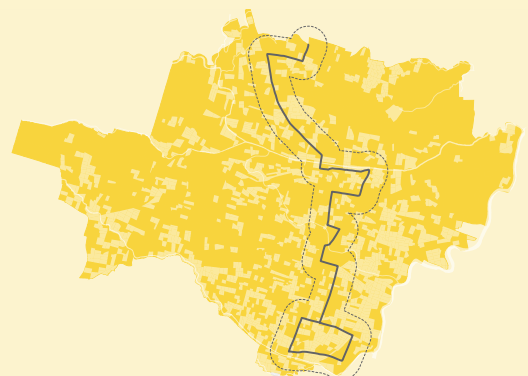
LINE 02 - SERVES POOR NEIGHBORHOODS



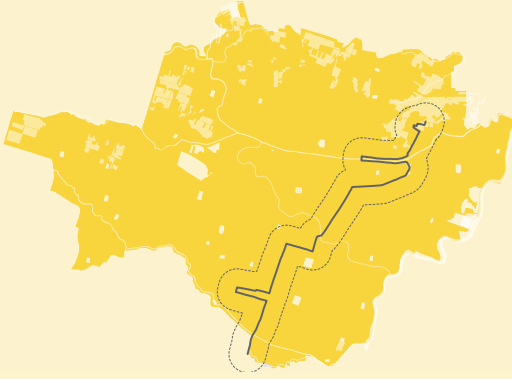
LINE 03 - CONNECTS TO SCHOOLS



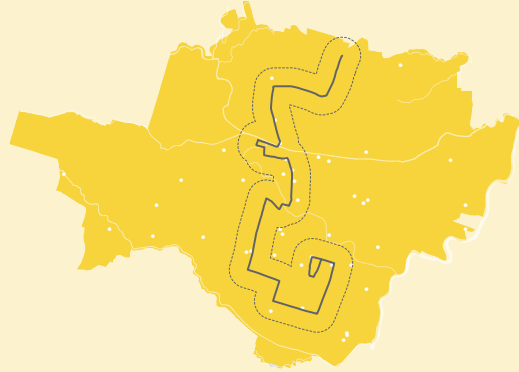
LINE 04 - SERVES DENSE NEIGHBORHOODS



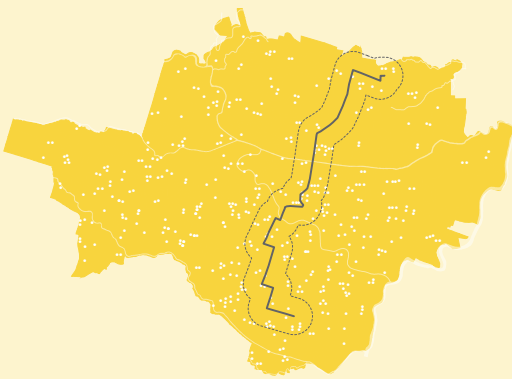
LINE 05 - FAR FROM SERVICES AND AMENITIES



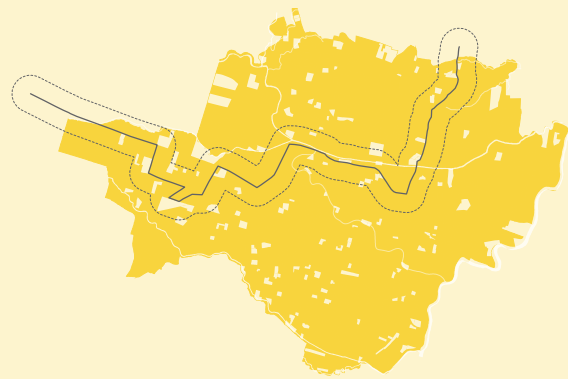
LINE 06 - GOOD PROXIMITY TO MARKETS



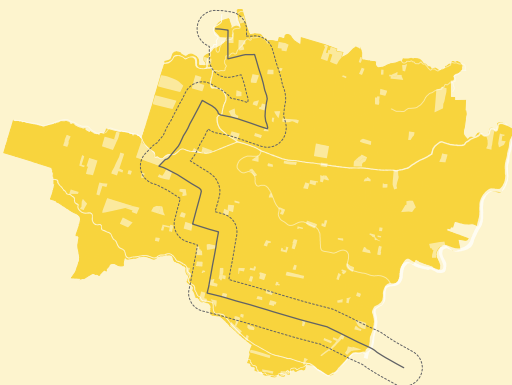
LINE 07 - FAR FROM SCHOOLS



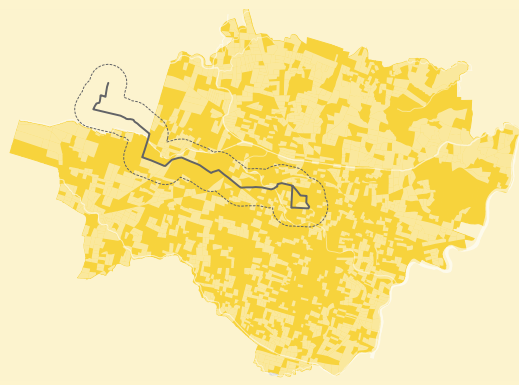
LINE 08 - SERVES AREAS WITH YOUTH



LINE 09 - SERVES AREAS WITH YOUTH



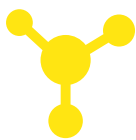
LINE 10 - FAR FROM DISABLED POPULATION



KEY IMPLICATIONS FOR BST

Several suggested *angkot*-BST connection nodes are identified in the diagram on the previous page of text.

LINES 1B, 04, AND 06 ARE KEY CONNECTORS



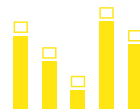
While Line 1B offers the greatest access to the city's amenities and is already highly used, other lines, including Lines 04 and 06 provide similar quality services for certain amenities and should also be considered for connection points.

NEED FOR DEFINING THE PROGRAM OF TRANSFER AREAS BETWEEN BST AND ANGKOTS



Nodes where BST and *angkot* intersect can be important centers of urban activity, but the function and program of these areas need to be established. Establishing a variety of these nodes – with respect to program, development strategy, and public realm – can create conditions in which more complementary integration between the BST and *angkot* systems is possible.

SYSTEM CAN BE LEVERAGED WHEN SPATIAL DISTRIBUTION OF ECONOMIC AND SOCIAL CONDITIONS ARE TAKEN INTO CONSIDERATION



Whereas the planned BST arbitrarily follows the largest traffic corridors of the city, the unplanned *angkot* routes appear to strategically provide access to areas where specific users either live or work. Even though the *angkot* routes are informal, they are actually organized in a highly rational way with respect to distributions of the urban poor, age groups, and the city's community and educational facilities.

Further planning for BST might take cues from the logic of the *angkot* system, and plot routes in order to serve specific populations and areas where there is built-in demand for transportation services.

8. Conclusions & relevance for planning & policy

STRONGER TOGETHER THAN ALONE



Traffic counts in Solo demonstrate the very low levels of trips being taken on public transportation in general, on BST or *angkots*, and the trend seems to demonstrate diminishing ridership in favor of motorcycle and car use.²⁷

One way to combat this trend is for BST and *angkots* to join forces, and to find ways to collaborate with one another. Doing so will require a more nuanced understanding of mobility alternatives and what they offer different groups — existing options, such as *angkots*, are providing services that work, even without much support from government.

But successfully collaborating will require building relationships and social capital. At the moment, divergent interests and a lack of mutual understanding undermine trust and willingness.

Another issue is the lack of information the government has offered to share about its plans and intentions, undermining openness and transparency.

For this, the government needs to look no further than former-Mayor Joko Widodo's approach towards open and constructive engagements, with a clear vision seeking mutual benefits.

By working together with stakeholder groups such as informal vendors, the government was able to promote successful policy outcomes. That example offers lessons for the *angkot* case.

INTERMEDIARY ORGANIZATIONS SUPPORT DIALOGUE AND UNDERSTANDING



Despite the poor relationship that exists between government and *angkot* drivers, and even the lack of coordination between *paguyuban* organizations, alternative policy and planning and solutions are highly possible. Trusted third party intermediary organizations offer a way to engage stakeholders in collective action, and can facilitate the planning and policy-making process. These organizations can work across the divide and help broker the collaborative development of urban policies.

This report provides an example of how the local NGO Kota Kita was able to collect relevant data that filled in knowledge gaps about *angkot* riders and routes, along with the needs, motivations, and aspirations of *angkot* drivers, as well as conduct outreach with different stakeholder organizations and the government to identify a range of pertinent issues and interests.

Presenting this information to different constituencies can build understanding and potential collaboration among all groups.

Certainly further inquiry is needed to identify ways to address power imbalances between parties and address divergent interests, but this exercise demonstrates the utility of the involvement of such a group.



PLANNING AND POLICY MAKING IS A SHARED AND CONTINUOUS PROCESS



While this report aims to offer initial insights into how BPS-*angkot* integration can be better structured, Kota Kita recognizes that the process is ongoing and continuous. Being able to find viable policies that satisfy a wide range of interests, as in the case of the *angkots*, requires open dialogue and communication, and dedication to a long process of change. Thus, planning is not a singular proposition, it requires continual negotiation and engagement. The actors involved in this process should be continuously monitoring and seeking to improve solutions themselves.

In order to effectively manage policy making and planning with informality, broader visions of the future are required. At the moment, formulated approaches tend to prioritize technical, often engineering, solutions. While they are an important component, creative, flexible, and inclusive approaches are additionally needed to reflect experiences, insights, and needs from different voices. Thus, the presence and involvement of an active civil society is essential. Civil society can contribute to setting the agenda, supporting dialogue, collecting information, solving problems, and monitoring the success, or failures, of policies.

Endnotes

²⁷ Traffic counts were conducted by Kota Kita, June 2014

Solo residents often use BST stops as waiting areas for *angkots*.

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