



BACKGROUND TO THE RESEARCH

This report presents research for a feasibility study on the viability of launching the Women on Wheels program in Indonesia. This initiative arises as a joint venture between Living Cities and Kota Kita. Both institutions are keen to better understand the potential of promoting bicycling for women in Indonesian cities.

Kota Kita is an Indonesian non-profit organization based in Solo, Central Java, that works on a range of urban issues. The organization's mission is to help people make thoughtful and inclusive decisions about the development of their cities – by facilitating citizen participation and collective action. Kota Kita is passionate about empowering a generation of people by promoting democratic and participatory approaches to improve the quality of life of urban areas. Promoting bicycling for women is one way to achieve our mission.

The Kota Kita team is comprised of community mobilizers and NGO activists (Fuad Jamil and Rifai Ahmad) who have worked on various issues related to urban informality, poverty, and social inclusion; urban planners (John Taylor, Rizqa Hadayani, Icha Thamrin) who have researched and undertaken projects on strategic planning, community mapping, governance, participatory planning, and the urban management of basic services; and an urban designer (Bima Pratama) who has developed a variety of graphic and digital interfaces between the government, public and urban data sources. The Kota Kita team is experienced at conducting outreach and facilitating community decision-making.

Kota Kita works on transportation-related issues with Erick Guerra PhD, professor of transportation planning, and Lucia Artavia, candidate for Masters of Urban Planning, University of Pennsylvania's Department of City Planning.



METHODOLOGY

The research took place over a two-month period between February and March 2015. The methodology was varied – we conducted desk-based research, focus group discussions, individual interviews, and observations in the field.



Kota Kita facilitates a focus group discussion with women bicyclists in Solo

- Initially the team worked on desk-based research that looked at cultural and historical aspects of bicycle use in Indonesia. We also gathered data about historical trends, sales and even accidents, and looked into information about what brands were most popular with women.
- The next stage was to speak to women about their experiences. We conducted five different focus group discussions in two different cities – Jogyakarta and Solo. Given the distinction between the working class and middle class groups in terms of their socio-economic background, lifestyles and values it was important to conduct separate focus group discussions.
- Two focus group discussions, one in Solo and one in Jogyakarta, were conducted with working class women who use bicycles for their work or commuting these were poor women (between 18-65 years) who lived in slum areas. A further two focus group discussions were held in each city, with middle class women bicyclists. they were professionals (between 20-53 years) from a variety of different bicycling communities. Finally a focus group discussion with a group of women who don't use bicycles (in Solo) this group was made up of female students, and women from middle and working class backgrounds (between 21-43 years).
- Surveys were also conducted in the field to identify bicycle-friendly infrastructure in both Jogyakarta and Solo, for example the existence of bicycle lanes, parking, and clear signage.
- Periodic discussions were held between Erick Guerra and Kota Kita to discuss research findings.



BICYCLING IN INDONESIA

Bicycling is not a new phenomenon in Indonesia, it has been around since the Dutch colonial era and has been a popular form of transportation for generations:



Female agricultural laborers commute to their jobs around the periphery of Solo from nearby villages

- Since the Dutch colonial era women have used bicycles just as much as men, so historically there are few gender differences in the usage of bicycles and there are few negative attitudes towards women on bicycles that were observed through the research.
- In some more traditional and conservative in parts of the country, such as West Java and Aceh, it is still considered unladylike for women to ride bicycles. In these parts of the country, for example, it is considered impolite for women to not have their legs together at all times.
- The increasing popularity of motorcycles has diminished the popularity of bicycles. This trend has occurred over the past 20 years, in large part due to low cost access to finance, aggressive marketing, low parking costs and motorcycle's capacity to go anywhere at a low cost.

- Few and low quality public transportation options have also influenced many to switch to using motorcycles.
- Bicycling has risen in popularity as a recreational activity, particularly for the middle class, during the past 5 years. Bicycle sales have been described as "booming".
- The trend to take up bicycling is driven by: the greater purchasing power of the emergent middle class, greater concerns for health and lifestyle associated with bicycling, and the lower prices and greater selection of bicycles that are available.
- Bicycling popularity has given rise to Car Free Sunday, a cultural phenomenon in many cities where main roads are closed down for walking and bicycle use on Sundays. This event started in Jakarta and is now widespread throughout most major cities.
- There are other bicycle-friendly events such as Last Friday Ride, a monthly event on the last Friday of the month which is similar to a bicycle carnival, and numerous bicycle-enthusiast clubs and associations that have sprouted in many cities.
- We could not find any official statistical data about the number of riders or the modal split of women bicycle users.

Bicycling has a long history in Indonesia and is experiencing a comeback, even though the use of motorcycles has become the dominant mode of transportation for men and women.

Why do women use bicycles today?

Given the variety of transportation options available to women, why do they choose to ride bicycles?



Bicycles offer a flexible way of shopping locally at many of Solo's traditional markets

- Many working class women use bicycles to commute to work, especially those that work in factories; other women also use them to go to and from markets for daily shopping needs.
- Women who ride bicycles often learned to do so at a young age and have become used to it. It seems that learning at a young age is an important factor for women to continue to ride, resisting changing to other transportation options. However the availability of lowcost motorcycles challenges this loyalty.
- Many women who work as vendors use bicycles to transport their goods and sell them locally. The bicycle's light weight, relative to carts and motorcycles, and slow pace, combined with the ability to modify the bike rack to carry their wares, is ideal for servicing neighborhoods and dense areas. Examples of female vendors are those that sell jamu (a traditional Javanese health drink) and yogurt.

- A household's economic level is an important factor in determining bicycle use. Many working class women belong to families which have only one motorcycle. In such cases the husband will use it, leaving the bicycle as their only option.
- Middle class women are increasingly using bicycles for exercise and to lead a healthy lifestyle.
- Working class users and students often use bicycles to economize on their transportation costs. Public transport is seen as costly, unreliable and time consuming.
- Bicycles offer a practical alternative for many to negotiate congested areas, since you can cut through narrow lanes and avoid traffic.
- They are also widely used for recreational activities (such as mountain biking) and they provide opportunities for people to meet others, be part of a group and socialize.

There are a range of different reasons and uses why women use bicycles today. They vary between social classes. Bicycle use by women for commuting is declining, but its use for recreation is rising.



Many women use bicycles to sell jamu, a traditional medicine

Barriers to bicycle use for women

Despite the relative ease of bicycle use for women a number of barriers discourage their use, these range from cultural concerns about beauty, practical concerns about safety, as well as lack of supporting infrastructure and restrictive



Women riding bicycles on roads are vulnerable to fast moving vehicles.

- Many women's perceptions about bicycling are influenced by their ideas about beauty, particularly for middle-class women. Culturally many middle class women believe that dark skin is unattractive; and that bicycling in the hot sun makes them darker. The intense heat and sweat are cited as reasons for women to not ride bicycles more.
- Long distances are a barrier as many women feel that medium to long trips are too far and tiring for them.
- Safety is another concern for women bicyclists. Not only are cyclists in general exposed to dangerous driving, but women bicyclists suffer harassment. Respondents told stories of men exposing themselves and grabbing them as they pass by on motorcycles. Riding on roads in Indonesia can be dangerous, road safety is a major concern given the poor quality of roads, lack of police enforcement of traffic safety, and high numbers of motorists on the road.

- For some working class women the cost of bicycles can be prohibitive. Some respondents claimed they couldn't afford bicycles and would prefer spending their money to save for a motorcycle, judged to be more useful.
- Bicycle-friendly infrastructure is limited. Respondents complained that there are limited opportunities to park bicycles, and little in the way of complementary infrastructure, such as bike lanes. Women cyclists require parking areas in places like malls, markets and other public amenities, but there are no dedicated parking areas for bicycles at malls. Without bike racks it is difficult to lock them up effectively.
- Women are afraid of not knowing how to fix their bicycles in event of a breakdown. There are very few bicycle repair workshops in cities. When compared to motorcycle repair shops, which are ubiquitous, it is very difficult to fix one's bicycle. This dissuades many who fear being stranded with a flat tire or having to undertake costly repairs.
- When women have their period they often choose not to ride. Working class women have no other options than to ride bicycles, while middle class women can use cars, motorcycles or walking instead.
- Some women complained that they need extra accessories (such as a basket, or a child's bicycle seat) to be able to bring their child with them.

Between different social groups barriers can vary. For middle class women concerns about sweating and getting too tanned in the sun were different than for working class users who had more practical concerns like availability and affordability of repairs. All women riders were concerned about safety and lack of places to park their bicycles safely.

Additional factors that prevent more use of bicycles for women

There are other societal reasons that contribute to bicycling not being as popular as before for women.

- The rise in the popularity of motorcycles as a low-cost, convenient and highly promoted means of transport negatively impacts the popularity of bicycles. Nowadays it is extremely inexpensive to make a down payment and pay monthly installments for one. As a result many people prefer to do so then spend on a bicycle, and use it for daily uses.
- Despite laws that encourage and promote bicycle use in Solo there is a lack of enforcement. It is actually illegal in Indonesia for any child under 17 years to ride a motorcycle – although many do..
- Advertising that promotes motorcycle use is aggressive and ubiquitous. Conversely encouragement of bicycle use seems non-existent.
- Bicycles designed to suit women's specific needs, such as having a basket for carrying goods or a baby seat, are rare.

There are few incentives that encourage women to use bicycles, and as a result it has lost popularity to the more prevalent motorcycle. The lack of enforcement of laws and rampant motorcycle advertising does not help matters

Popular bicycles in Indonesia: A Brief Market Analysis

We conducted a brief market analysis that looked at the most popular kinds of bicycles, manufacturers and the secondhand bike market



Popularity of bicycles: a brief market analysis

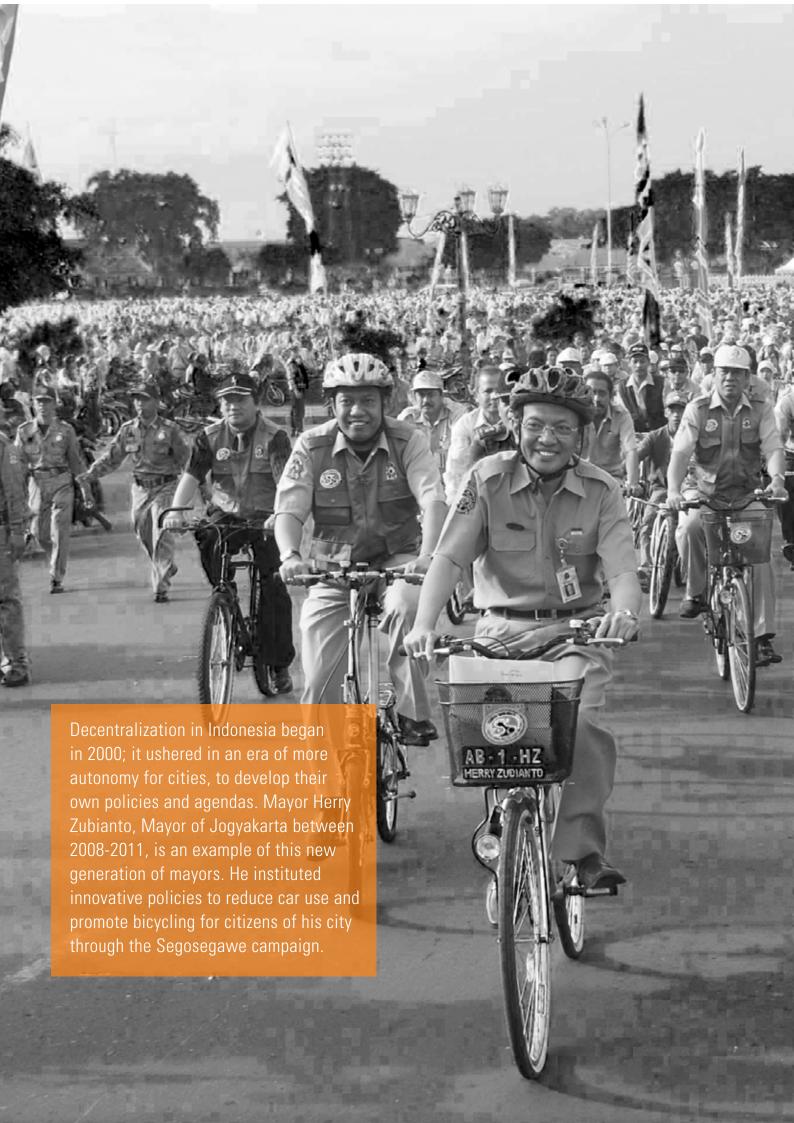
- The most popular bikes in Indonesia today are city bikes. Another very popular bike is the mountain bike, which has become one of the most popular for middle class women at the moment.
- Others popular bikes for women are the classic onthel and the folding bicycle.
- · For working class women they use very sturdy, but cheap, Chinese-model Phoenix bicycles

Who are the main manufacturers in Indonesia?

- National manufacturing of bicycle has risen from 2.32 million units in 2006, to 2,86 million units in 2010.
- Indonesia has three large bicycle manufacturing companies, the most popular is is Wim Cycle, followed by Polygon (also known as Insera Sena) and United Bike. These manufacturers sell domestically as well as export internationally.
- WIM cycle (PT. Wijaya Indonesia Makmur) was established since 1972 in Surabaya, it started with workshop that produced bicycle spare parts. This brand was most popular during the 1990's winning the Super Brand Award 2005-2009, and the Top Brand Award 2007 2009.
- Polygon was established in 1989 and now exports to more than 30 countries throughout the world; it is well-known in Asia and European countries. Currently Polygon is the most popular of the three brands. There are 150 different kinds of Polygon bicycle, the starting price goes from about USD 200 to 8,000 per unit.
- United Bikes will increase their capacity of production from 200,000 units to 1 million a year, while Wim Cycles will increase their production capacity from 800,000 units to 1 million units per year.

The Second-hand market

• There are a number of second-hand market for bicycles, such as Pasar Rumput, in South Jakarta. In Bandung the bicycle market (not only for second hand) is located in Jl. Veteran, Bandung. In Jogja, we can find second hand bicycle market in Pasar Tunjungsari and GAPPSTA (Gabungan Pedagang Perantara Sepeda Bekas) in Jogyakarta, and the Klitikan and Gunungan Markets in Solo



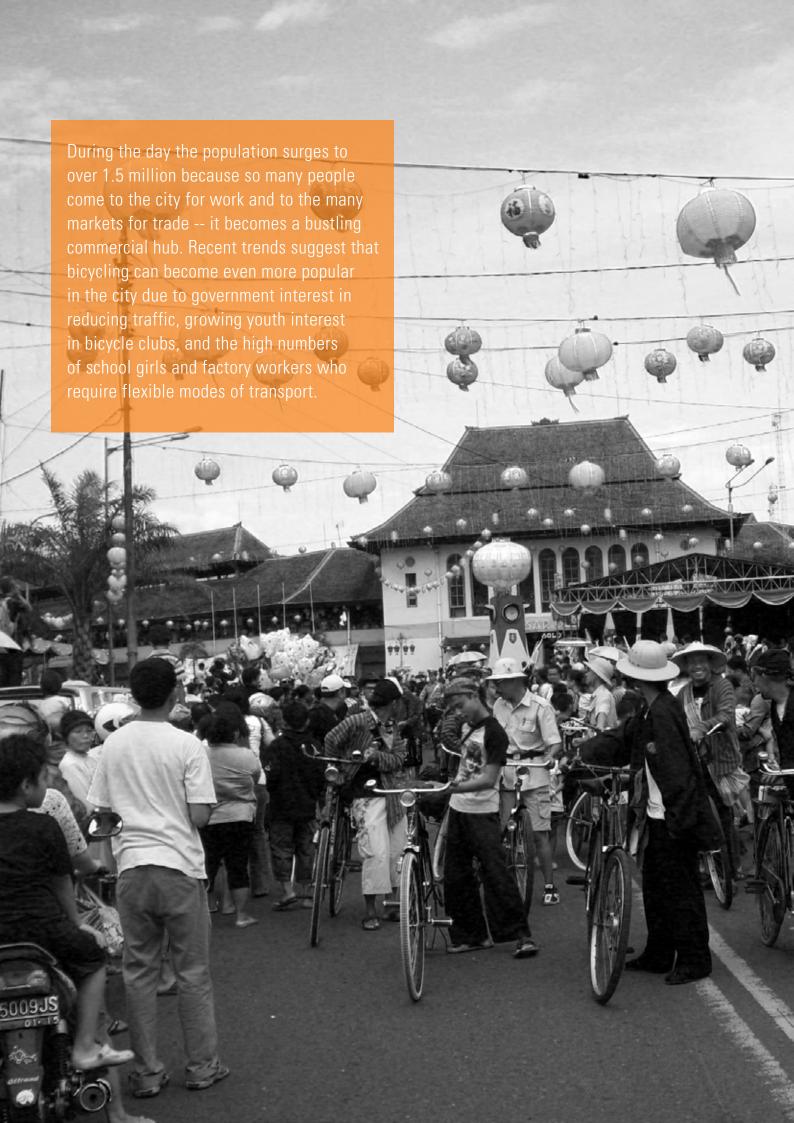
Case study: Promoting Bicycling in Yogyakarta

Some cities and civic leaders are taking the initiative of decentralization laws that give local governments the autonomy to create urban policies that promote bicycle use. One such case is the civic pro-bicycling campaign in Jogyakarta between 2008-2011, locally known as "Segosegawe".

- The previous Mayor of Jogyakarta, Herry Zudianto, promoted bicycling through his "Segosegawe" Campaign (Bike to Work and School). The campaign's objective was to encourage bicycle use in Yogyakarta. This program started in 2008, creating bicycle slow lanes, bicycle parking and other bike-friendly infrastructure. The Mayor promoted the use of bicycles for students, giving them away as incentives for high performing students.
- A regulation for Junior and Senior High School students was created to oblige them to ride bikes to school and prohibited them from using motorcycles.
- The mayor also promoted the use of bicycles for government officials every Friday morning. Civil servants had to ride bicycles to work, the Mayor also did the same.
- The campaign increased bicycle use in Jogyakarta, and made the city bicycle-friendly. The increase was observed not just for recreational uses, but also as a transportation mode.
- An interesting innovation was the provision of a free cycling clinic, where people could come and consult what to do if their bike breaks down, and ask other bicycle-related questions.

- A citizen-led monthly event was born called Jogyakarta Last Friday Ride (JLFR). Every last Friday night of the month, thousands of bicyclists ride around the streets together in a show of mass mobilization to campaign for bicycle use in Yogya. This program has inspired many other cities to campaign for the use of bicycles, such as in Solo, Madiun, Palangkaraya and Tangerang.
- After the Mayor lost power the promotion of bicycling declined. Segosegawe has continued however though, mostly bicycling clubs. The current mayor wants to dissociate himself from the previous mayor and refuses to support pro-bicycling policies.

Leadership by Mayors can make a big difference to raise awareness and provide social incentives and infrastructure that make bicycling popular. Such initiatives, when not sustained by civil society support, can die when political power is lost.



Case Study: Solo, A Bicycle Friendly City?

We asked whether Solo, a city with very similar characteristics to Jogyakarta, is also a bicycle-friendly city?

- Solo is a city that is well suited for bicycle use it is dense, flat and has a multi-nodal layout; becaks, or bicycle pedicabs are also prominent and widely used.
- The city also has the distinction of having the longest slow lane in the country; originally this was specifically designated for non-motorized transport modes. This is a legacy of the Suharto era when bicycles and becaks were given their own lane.
- Historically there have been high levels of bicycle use by female factory workers, working in the batik and textile trade prominent in Solo, as well as those working in plastic factories.
- Solo is home to a number of bicycling-friendly events and clubs. Events such as Car Free Sunday and Solo Last Friday Ride mobilize thousands of riders, while there are a number of pro-bicycle groups such as @ Seli Solo Raya, Bike2Work Community, Onthel Lawas, Solo Cycling Company, and Komunitas Sepeda Gunung Solo.

Motorcycle use however is dominant in Solo. They
are everywhere in the city and crowd out parking
spaces for bicycles (even in local high schools). The
slow lane, which is supposed to be reserved for nonmotorized transportation is blocked by street vendors,
parked cars and motorcycle traffic. So far there is little
coordinated government action to promote bicycling
and enforce laws that should prevent motorcycle use
by minors.

Solo has the potential to be a bicycle-friendly city due to strong civil society interest, a Mayor who himself is an active cyclist, and a land use patterns and demographic density that favors bicycle use. But concerted government action has yet to focus attention upon the issue of promoting bicycle use.

General Conclusions

Conclusions from the research indicate some opportunities for the further promotion of bicycling for women in Indonesia.

- Bicycling is on the rise for recreational purposes for women, particularly by young enthusiast groups. In general it is declining as a means of transportation for commuting to work.
- Bicycling is not prioritized or privileged in any way in cities through policy measures. Private motorized transport
 is the dominant mode choice over all others (including walking). Measures to do so would help to encourage
 alternatives that could alleviate traffic and increase mobility.
- While gender can play a role in determining whether a woman uses a bicycle or not it doesn't seem to be a
 dominant factor in influencing its popularity.
- Bicycling does offer cities a low-cost, easy-to-use transportation alternative but popularity will depend on a number of complementary factors and policies, for example road safety, enforcement of laws to prevent youth on motorcycles, durability, as well as cultural trends.
- Leadership by mayors can make a big difference to raise awareness and provide social incentives and infrastructure
 that make bicycling popular. Such initiatives, when not sustained by civil society support, can die when political
 power is lost.

Given that there has been little coordinated effort to promote bicycling for women in cities, between civil society and local governments, there is potential for a focused campaign to make an impact. Such a campaign would have to take into account: road safety considerations, bicycle infrastructure, incentives for companies to get involved, a social promotional campaign and the enforcement of regulations.

Feasibility Study Reflections

Pros and Cons of a 'Women on Wheels' Pilot in Indonesia

The following is a list of pros and cons offering considerations about the launch of a 'Women on Wheels' pilot project in Indonesia.

Pros

- In Indonesia women's bicycling is well accepted, there is little taboo related to women's use of bicycles, but there
 still remain some areas that have conservative attitudes about about bicycle use, such as Aceh and West Java.
- Some local governments (such as the governments of Jogjakarta, Bandung and Jakarta) have been made efforts to promote their use, so there is government awareness and desire.
- Demographic and economic trends Indonesia's current youth bulge and the steady growth of the middle-class indicate a promising moment for encouraging bicycle use. More people can now afford it and more are taking it up for health and lifestyle reasons.
- There is growing awareness of the importance of physical activity for health reasons, and recognition that it indicates a modern lifestyle.

Cons

- Given the current existence, and popularity, of bicycling groups and movements, as well as previous campaigns (for example in Jogyakarta) it is uncertain how great of an additional gain in popularity a pilot could induce
- The aspirational prominence and low-cost of motorcycles can make promoting bicycling a challenge. Other complementary policies would be necessary to discourage advertising or purchase of motorcycles, and these would have to come from national government

Why a Pilot in Solo?

Following the research Kota Kita finds that Solo would be an appropriate city to launch a Women on Wheels pilot. Careful consideration of the following conditions and political context support this reasoning:

- Bicycling is a viable and convenient alternative in Solo since it is a dense and multi-nodal city (there are multiple
 economic centers so people need flexible transportation modes)
- There are already some government initiatives underway to make the city more bicycle-friendly. For instance around
 Pasar Gede traffic calming measures are being implemented and the government is awareness of the growing
 problem of traffic and is seeking alternatives.
- Promoting a bike-to-school policy for girls through the public school system is viable. The regulations to prevent the
 use of motorcycles are already in place and there is discussion about pushing authorities to enforce them. There is
 a high number of schools and educational institutions throughout the city.
- The Mayor of Solo is a prominent cyclist and supports efforts to promote bicycling. Until now there has not been
 a pro-bicycle campaign but his profile would be well suited to lead it and there are early indications he is very
 supportive.
- There is a growing number of bicycling enthusiasts, many of whom are women. The number of bicycling clubs, groups and activities, suggests a significant rise in interest and visibility in bicycles
- There is a high number of factories (textiles and plastics) within, or on the outskirts, of the city who predominantly
 employ working class women who have traditionally used bicycles. Efforts to incentivize its more widespread use
 could be influential.

The above conditions indicate that the unique combination of the city's characteristics, economic profile, legal and political context, as well as the recent rise in interest in bicycling make Solo an appropriate city to develop a pilot project. In addition Kota Kita has extensive experience promoting campaigns in Solo, strong relationships with government departments, and is highly recognized at the community-level, well suited for a public awareness and policy advocacy campaign.

Some Ideas for a Pilot Project

The following ideas help to illustrate some potential initiatives for promoting women's bicycling. The activities involved in each span education (trainings, developing policy alternatives with government), outreach (public awareness campaigns, bike events, lobbying the enforcement of laws) and infrastructure (identifying easy opportunities for improvement, better infrastructure planning).

1. Promoting bicycling for school girls

- Work with junior high and high schools to promote bicycle use for female students, emphasizing the positive benefits for health, safety, the environment and cost saving.
- Educate students through lectures and campaigns about the benefits of bicycling.
- Promote the construction of bike sheds and adequate parking management.
- Launching peer group campaigns to promote bike-to-school and enforcement of new regulations..



The city of Solo attracts students from all over Central Java. There are over 30 high schools and over a hundred junior high schools in Solo. Bicycling is a popular way for students to travel to school but safety and infrastructure are lacking.

2. Promoting bicycling with female factory workers

- Identify factories in and around Solo where there is potential to encourage women to use bicycles for their commute.
- Work with the factory bosses to incentivize women, for example by constructing a dedicated parking area, offering incentives, perhaps even giving staff free bikes.



Solo is a national center of textile and plastic manufacturing, products that are exported internationally. These factories predominantly employ women laborers, many of whom ride bicycles to work. it is possible to introduce measures to further promote their use.



Textile and plastic factory workers commonly use bicycles to commute to and from work. Workers are predominantly women.

3. Promoting women's bicycling through Solo's Department of Transportation

- Meet with the City leadership to put forward the vision and ask them to support the initiative; also convening
 the Department of Transportation. Create a task force or citizen's committee that can meet regularly to discuss
 improvements and monitoring of new policies.
- Promote the creation of dedicated bike lanes, and the enforcement of the Solo City Regulation no. 1/2012 on City Land Use Planning (stipulating the protection and creation of dedicated bicycle lanes).
- Identify with Dept. of Transportation strategic infrastructure that can be improved and what is needed; incorporate these ideas into development plans.
- Raise public awareness about the laws and the importance of their adherence.
- Push government to better regulate parking so that parking attendants better secure adequate parking and provide secure conditions.



Solo's Department of Transportation is already trying measures to reduce car use, they are promoting public transportation and reforming parking regulations. Efforts to promote bicycling for women can be supported by working with local government to develop and implement new and creative policies.

4. Promoting bicycling events and raising awareness

- Work with bicycle clubs and associations and train them on how to conduct citizen advocacy, providing them with skills and encouragement to seek pro-bicycle policies and infrastructure for women.
- Promote training courses on bicycle maintenance to increase the number of people who can fix bike parts.
- Host large public events to disseminate promotional material and spread Women on Wheels' message.
- Encourage local media to cover the events and disseminate information about the rise of women's bicycling.
- Invite bicycle groups from other cities to lend their support and promote new ideas and trends in Solo.
- Extend the campaign's reach to the digital sphere, turning it into a campaign with content that combines an ongoing social media presence (WoW's Facebook page, Twitter, and Instagram accounts), as well as occasional thematic posts using relevant female spokespersons whose personalities match the WoW's mission.
- Post daily news items and updates on social media channels covering topics of women, women and mobility, and bicycling. Daily updates can also take a competition format with daily prizes culminating in offline gatherings.
 Another format would call for crowd-sourced contents from followers. All posts to include the #WomenonWheels hashtag for easy tracking and to measure success.
- Work with female spokespersons to increase the relevance and improve the resonance of the message, spokespersons for #WomenonWheels need to embody the characteristics of a fit, dynamic, everyday women from a variety of professions. They can be urban activists, academics, athletes or fitness experts, or from other



Bicycling has become a popular recreational activity and events that gather bicyclists are increasingly common. These events are good opportunities to gather interested people and bicycling enthusiasts around a common cause.

