

# WOMEN, CYCLING, AND SUSTAINABLE CITIES

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## Abstract

*Research shows that gender parity in cycling rates is a crucial indicator of a cycling-friendly city. However, encouraging women to cycle proves to be more complex than previously anticipated. Within the Philippine context, cycling adoption by women is made more challenging by intersecting inequalities brought about by their class, gender, and race; a top-down approach to urban transport development; and the high incidence of poverty. Through a review of related literature, the paper identifies safety of roads and public spaces, material and symbolic access to cycling, and women's participation in transport governance as the key dimensions in promoting cycling as a transport mode to women in Metro Manila.*

## Introduction

The world is experiencing rapid urbanization with half of the world's population living in cities (United Nations, 2014). Mass transportation is a key area of concern as cities strive to fulfill the transport demands of its inhabitants. As with many cities in developed and developing countries around the world, the trend points towards increased motorization of transport. While the transport sector continues to be integral to urban development, it is also a major contributor to high levels of pollution and congestion, and a huge spender of non-renewable energy (Parkin, 2012). This is true for the Philippines where the transport sector accounts for 65% of air pollution and 70% of the country's petroleum consumption (UNCRD, 2010). In Metro Manila, the most densely populated mega-city in the country, traffic congestion is a pressing transport problem causing the Philippines billions of pesos in losses (Tan, 2016). To make way for more motor vehicles, urban spaces are increasingly converted into road networks displacing entire communities, green spaces, and landmarks among others.

Increasing motorization in urban transport is also linked by the World Health Organization (WHO) to two significant health problems—

physical inactivity and road traffic injuries. A sedentary lifestyle is a known risk factor for dreaded diseases like diabetes, some types of cancer, and cardiovascular illnesses while road traffic injuries places ninth in the top ten causes of death and indisposition around the world (WHO, 2010). In the Philippines, cardiovascular diseases (33%), cancers (10%), and diabetes (6%) are among the most deadly non-communicable diseases (WHO, 2014). The number of obese Filipinos is also on the rise (Ramirez, 2015) and total deaths from road traffic accidents in 2015 were estimated to be at 10,379 (WHO, 2015).

In 2016, the Sustainable Development Goals (SDGs), a set of targets with corresponding guidelines that must be met in order to improve human conditions in a manner that is protective of the entire planet, were introduced and adopted by more than 150 countries. Under the SDGs, it is required that urban transport development is committed in ensuring the sustainability of cities and promoting social inclusion, especially among those at the margins, including women (United Nations, 2015).

To this end, the promotion of cycling as a sustainable transport mode has become one of the crucial strategies. The many cited benefits of cycling include reduction in the following: transport costs; hours in traffic; health costs; reliance on non-renewable energy; pollution; and allocation of large areas of urban space for road networks (Dekoster & Schollaert, 1999). It also offers inclusive mobility for the young and the old, men and women, and the rich and the poor. There are even bicycles that are designed for differently-abled persons. Compared with other sustainable transport options such as electronic and solar-powered vehicles, cycling brings improved health conditions to its users, particularly for the cardiovascular system, muscles, bones, and balance (Harvard Medical School, 2016). Cyclists also take up less road and parking space. Cycling offers many other advantages but, in general, promoting it as an urban transport mode points to an enhanced quality of life for individuals and communities.

As early as 2010, the Philippines, along with 22 Asian countries, signified its commitment to the promotion of sustainable transport by signing the Bangkok Declaration (2010). One of the key stipulations in the treaty is the across-the-board integration of Non-Motorized Transport (NMT), including cycling, in transport planning. By the following year, the country started to act on its pledge by formulating the National Environmentally Sustainable Transport Strategy for the Philippines. Consistent with the Bangkok Declaration, the document emphasizes the integration of cycling as Non-Motorized Transport (NMT) in the transport

system as among the key components of sustainable transport initiatives (UNCRD, 2010).

Despite the sustainability discourse backing the promotion of cycling as an urban transport option, persuading people to cycle for daily transportation proves to be more difficult and complex than previously imagined, specifically in places where a strong bicycle culture is not present (Aldred, 2012; Aldred, Woodcock, & Goodman, 2016). Even in Asian countries with long histories of cycling like China and India, bicycle use is in decline (Tiwari, Arora, & Jain, 2008). Gender becomes a crucial element in cycling advocacy as studies reveal that low rates of cycling in a city means less women cyclists (Spotswood, Chatterton, Tapp, & Williams, 2015; Steinbach, Green, Datta, & Edwards, 2011). Unfortunately, in Metro Manila, cyclists are unaccounted for by the Land Transportation Office. Thus, gender-differentiated information on the levels of cycling is not easily available. Still, the fact that the Philippines holds the distinction of being among the countries with the lowest bicycle ownership levels in the world (Oke, Bhalla, Love, & Siddiqui, 2015) and the dismal number of women cyclists on the road tell us that the same trend holds true for most cities in the country including Metro Manila. Thus, in the promotion of cycling as a sustainable urban transport mode, there is a need to unpack cycling's lack of appeal for women in non-cycling cities.

The objective of this paper is to provide a preliminary examination of the key dimensions in promoting women's cycling in a Philippine urban context, particularly in Metro Manila by identifying: (1) the deterrents to women's adoption of cycling as a transport mode in non-cycling places and (2) women's urban transport issues in the Philippines. An analysis will be made based on these two data sets that would situate the identified deterrents to women's cycling adoption within the Metro Manila context. The ultimate goal is to provide a starting point for building knowledge and practice that will support the advocacy of gender-responsive and cycling-friendly cities in the country.

Why a separate study on women's cycling in Metro Manila? This paper subscribes to the notion of intersectionality such that different women will have particular issues and concerns because of their intersecting gender, racial, and class identities. This means that various groups of women will have different relationships with cycling. That is why Filipino women would have different issues and concerns when it comes to cycling as a transport mode because the transport context in the Philippines has its unique characteristics. Likewise, some issues would not carry equal weight

for all Filipino women. The scope of this study is limited to Metro Manila because of its massive transport demand and its failing transport system. In addition, most of the available data on women's transport issues only applies to the location and because this researcher's commuting and cycling experience is limited within its bounds.

The study uses review of related literature as its data-gathering method, with one major limitation being the lack of local studies on women and cycling. Most of the cited references on the subject came from the UK, the United States, and Australia. However, these countries share a common characteristic with the Philippines in terms of a general lack of a strong cycling culture, and low percentage of women cyclists. Considering the modest objective of this paper, these references are deemed useful.

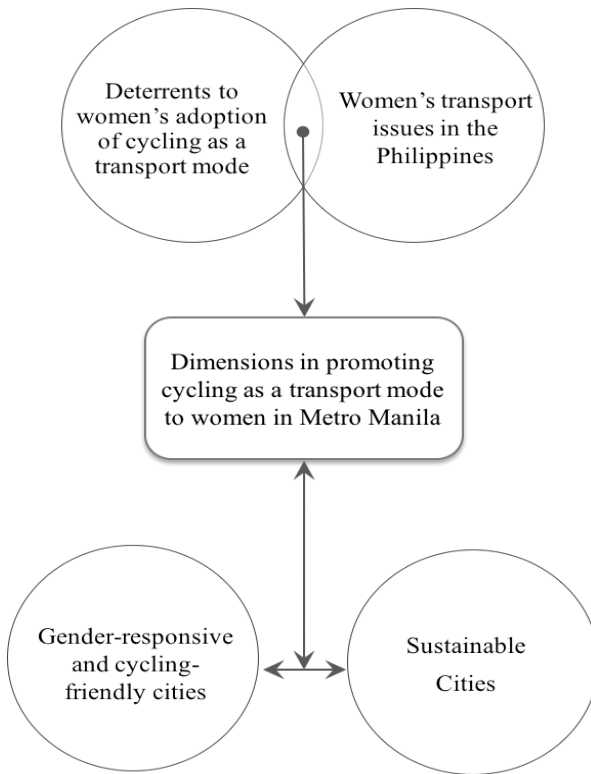
### **Framework of the Study**

There are several ways by which cycling scholars have looked at women and cycling. However, the particular focus of this article is the promotion of cycling as a transport mode to women. Cycling can be considered in a lot of ways—as a leisure activity, as an extreme sport, as a physical fitness component, etc. This study looks at it as an everyday means of moving people and goods from point A to point B.

The study chooses to focus on research articles that identify deterrents to women's cycling as a transport mode. Thereafter, the deterrents are considered in connection with women's transport issues in the Philippines. By doing this, the key dimensions in promoting cycling as a transport mode for women in Metro Manila are culled. These dimensions must be addressed in order for Metro Manila to make the transition to become a "Gender-Responsive and Cycling-Friendly City," envisioned as one of the defining characteristics of "Sustainable Cities." Before going further, it must be emphasized that cycling promotion in this paper does not mean imposing cycling on people, especially women, but opening up and transforming the city to accommodate and encourage women's cycling if they wish to do so.

Broadly speaking, cities are economic, knowledge, and cultural centers with large and dense human settlements. As explained earlier, urbanization leads to increased demands for transportation. The introduction of cycling as a transport mode is

considered a sustainable urban development strategy. “Gender-Responsive and Cycling-Friendly Cities” refers to cities where the needs and interests of women and women cyclists are sufficiently addressed in the urban development process. The article adopts the UN’s broad definition of “sustainable cities” as cities that consider the “balanced accomplishment of social and economic development, environmental management and effective governance” (United Nations, n.d., p.62) in their design and management.



### *Why won't women cycle?*

During the late 19th century, bicycles were symbols of modernity (Hallenbeck, 2009; Macrae, 2015; Simpson, 1998). Riding the bicycle turned the ideas of freedom, independence, and technological progress into bodily experiences. But these were different for men and women. Men on bicycles were unchallenged. Women, in turn, were simultaneously celebrated, monitored, derided, and feared (Jungnickel, 2015). Back then,

efforts were made to stop women from cycling. Nowadays, the trend is opposite with sustainable cities and cycling advocates actively encouraging all people, including women, to cycle. Unfortunately, most women remain unenthusiastic in adopting cycling as a transport mode.

There are three major deterrents to women's cycling identified in the literature—safety concerns, deviant images of cyclists, and compliance to the demands of normative femininity. In general, people regard cycling as a risky mode of transport. Concurrently, cyclists are seen as deviants. Women also experience difficulties in trying to meet the demands of looking feminine while riding the bicycle, and adopting cycling in the absence of any personal history and/or cultural connection with cycling.

### *Safety issues in cycling*

Safety is the dominant discourse that cyclists deploy in their advocacy, simply because cycling is potentially life threatening. Cycling is considered as one of the riskiest modes of transportation and this is backed by accident reports (Krizek, Johnson, & Tilahun, 2005; Le Vine, Miranda-Moreno, Lee-Gosselin, & Waygood, 2014). In the Philippines, a study profiling cyclists who use the Marikina Bikeways Network revealed that safety was the primary concern of many cyclists and that 47% of the respondents have had accidents, mostly involving motorized vehicles (Rivera, 2002). More and more cycling-related deaths are also being reported (Matias, n.d.).

Safety issues are among the major deterrents of cycling for women especially in low-cycling countries (Garrard, Rose, & Lo, 2008). Cited concerns include road crashes and motorist confrontations, physical assaults, and even dog bites (Handy, 2014). Having considerable cycling experience somewhat reduces women's fear, but for non-cyclists, news of cycling-related accidents continues to be a major source of concern (Handy, 2014), while another study reveals that women cyclists do not feel safe at all (Akar, Fischer, & Namgung, 2013).

### *Deviant images of cyclists*

In general, cyclists are viewed as deviants. They are perceived as risk takers and law breakers (Daley & Rissel, 2011); out-of-reach (Leonard, Spotswood, & Tapp, 2012); and a source of annoyance (Basford, Reid, Lester, Thomson, & Tolmie, 2002). In low-income countries, the association of cycling with poverty deters poor people from adopting it (Mohan, 2008).

Among the students of the University of the Philippines, cycling is not regarded as a useful transport mode (Gozun & Guillen, 2005)—although this may be gradually changing due to the UP Bike Share initiative launched in 2015.

Images of cyclists are tied to strict notions of masculinity and femininity. Men and women cyclists plan, decide, and execute a kind of cycling that is aligned to their gendered identity. Men talk of being aggressive on the road and take pleasure from the risks of cycling. Women, on the other hand, speak of assertiveness in managing these risks. “Assertiveness” here puts an emphasis on compliance with proper behavior on the road. Women, more than men, appear to actively negotiate their performance of gender when cycling. Some women try to balance the physical demands of cycling and the requirement of looking feminine by wearing fashionable clothes while riding (Steinbach et al., 2011).

However, not all women are willing or have the means for such negotiation. While cycling may be appealing and accessible for some, cycling is too threatening, unacceptable, and burdensome for many others. It is therefore not surprising that increases in cycling rates in low cycling cities mean gaining more of the same kind as exemplified by Aldred et al.’s (2016) study that reveals the demographics of the cycling population as homogeneously young and male.

### *Compliance to the demands of normative femininity*

Adherence to characteristics that customarily define femininity is also a known deterrent to cycling. Among women, concerns about looking fashionable while cycling negatively influence their perception of the social acceptability and likeability of cycling (Handy, 2014). Some women would try to work around this unladylike image of cycling by expressing their femininity through fashionable riding clothes and accessories (Steinbach et al., 2011).

Women are also stereotyped as conscientious and good-natured cyclists in charge of everyday errands, while men cyclists are stereotyped as self-assured young professionals who cycle to work (Gatersleben & Haddad, 2010). Although these are but stereotypes, they restrict the images of cycling that are available for both women and men.

Cycling is said to be compatible with women’s transport needs because women tend to make multiple trips, mostly over short distances, to

perform their daily tasks such as going to work, fetching children, grocery shopping, etc. But compatibility is tied to notions of femininity, which in turn have cultural and class dimensions. In Netherlands, a high cycling country, women immigrants and refugees would not even know how to bicycle because of the unconventionality of cycling for women in their countries of origin. Ironically, even after successfully completing bicycle lessons, some of them will have limited opportunities for cycling because they must prioritize household chores and child-care responsibilities (van der Kloof, Bastiaanssen, & Martens, 2014). In this instance, the fact that cycling has simply not been associated with women's everyday lives explains their indifference to it.

### **Women's Transport Issues in the Philippines**

Identifying women's transport issues in the Philippines is important in order to situate women's cycling concerns within the local urban transport context. Although there is a lack of available local materials on women and cycling, women's safety concerns in public spaces, including public transport, are serious issues as highlighted in several local sources. Two other women's issues in transport are also evident in the literature: 1) limited access to transportation due to the large number of people living in poverty in the country, and 2) women's marginalization in transport planning.

#### *Women and safety in public transport*

Aside from bodily harm because of road accidents, fear of attack, sexual assault, theft, and catcalling are the forms of harassment that women have to face when they travel. Department of Transportation and Communication Undersecretary Anneli Lontoc reveals that Manila placed seventh in a survey of the most dangerous places for women because of perceived dangers and experiences of harassment (WiTL, 2017). In her graduate thesis, Herrera (2007) documents the sexual harassment experienced by women in Metro Manila's public transport. Her findings indicate that these incidents are commonplace but rarely addressed. In a 2015 survey of two local communities, the Safe Cities Manila project discovered that three out of five women experience sexual harassment on the street but half of these cases go unreported (Caballar, 2016).



### *Access to transportation*

A 2015 data set from The World Bank (n.d.) shows that the poorest of the poor Filipinos spend the least on transportation. Poverty is tied to transportation because less mobility means less access to opportunities (Titheridge, Christie, Mackett, Hernández, & Ye, 2014). Women are doubly disadvantaged because of their gender. As Peters (2002) observes, poor women have less access to modes of transport, including bicycles, and are thus more likely to walk. This is also the case in the Philippines, where walking is the mode of transport for more women as compared to men (WiTL, 2017). In Delhi, Anand and Tiwari (2006) note that poor women have limited access to work opportunities because of their inability to afford more expensive means of transport. As a result, their job prospects are limited to those within walking distance or short travel by bus. Put into this context, walking becomes both a cause and effect of gender inequality, such that women's mobility and access to opportunities are hampered by their lack of access to more efficient modes of transportation.

### *Gender-blind transport planning*

Generally, transport planning in the Philippines is blind to people's needs and interests. To illustrate, Metro Manila's mass transport system is consistently unreliable and daily commuting remains terribly difficult despite the fact that 80% of all trips in Metro Manila are made through public transport (Romero & Guillen, 2014). The lack of transport options drives innovations in informal modes of transport such as tricycles and *habal-habals*, a modified motorcycle that can accommodate more than two people used in Davao City (Guillen & Ishida, 2004), and pedicabs in Metro Manila (Gozun & Guillen, 2005).

Citizen participation is key for sustainable transportation (Peria, 1997 cited in Gozun & Guillen, 2005), but the transport sector in Asia Pacific is still dominated by public officials and the private sector (Rivera, 2007). Particularly in the Philippines, mechanisms for meaningful citizen participation are still lacking (Romero & Guillen, 2014).

Transport development in the Philippines is not only elitist and bureaucratic, it is also gender blind. Urban development is generally unresponsive to women's issues (Le Vine et al., 2014) and several sources strongly indicate that women are marginalized in transport planning, policies, and decision making ("Bridging the Gap," 2014; Peters, 2002; Rivera, 2007). The Philippines' First Women in Transport Leadership

Workshop-Meeting echoes this claim—there are not enough opportunities and mechanisms for women to participate in transport planning and implementation. Thus, one of the key conclusions from the meeting is the importance of women leaders in transport (WiTL, 2017).

### **Implications of Findings**

Sustainable cities call for a balanced development of the economy and the society with due attention to environment management and effective governance practices. The compatibility of cycling to the formation of sustainable cities comes from two sources. One, cycling is friendly to the environment as it promotes clean air, less noise pollution, and requires less space. Two, it promotes healthy people and communities. Cycling is also good for the economy. A report by the London School of Economics (2011) argues that a thriving cycling culture can provide a long-term boost to the economy through cycling-related industries, retailing, and employment while lowering government spending on health services. Cycling also promotes social inclusion because it democratizes mobility. However, it is true that in non-cycling cities, women cyclists are disproportionately underrepresented. Here lies the conflict. If everybody can cycle but women are not cycling or cannot cycle, it is not democratic at all. In fact, the low proportion of women cyclists could be interpreted as cycling being exclusionary to women. If it does so little good to half of the population, is it sustainable at all? Cities that want to promote the mass adoption of cycling as a transport mode must come to terms with this conundrum.

To reiterate, the paper adopts a structural change perspective in promoting cycling, emphasizing that it is the city and the institutions within it that must be transformed in order to encourage women's cycling, rather than forcing the individual to adjust or to adapt. Rather than it being a matter of managing individual attitudes or behavior, this paper argues that the identified deterrents to women's adoption of cycling as a transport mode and women's transport issues in the Philippines are modifiable conditions that require systemic change mostly in urban environment transport planning and in social—especially gender—relations. Sustainable cities must be able to make cycling work for women, and not the other way around. This is what it means to be a cycling-friendly and gender-responsive city.

From the data presented, three key dimensions of promoting women's cycling have emerged—safety of roads and public spaces, material and symbolic access to cycling, and women's participation in transport governance. Each of these areas involves aspects that Metro Manila must address in order to make the city and cycling more inclusive and responsive to women.

### *The spatial and gender dimensions of cycling safety in Metro Manila*

Safety as a dimension of promoting women's cycling in Metro Manila is obvious enough since it is both identified as a deterrent to cycling and a women's transport issue in the country. As a deterrent to cycling, the urban environment is revealed to be too risky for women cyclists while as a women's transport issue in Metro Manila, women's wariness of sexual violence in public spaces throws light on the gender aspect of safety in the city.

Sustainable cities must address the risk posed by the high incidence of road traffic injuries since it is a major urban health issue. In cycling, safer roads not only serve to protect cyclists from physical harm, they also minimize the fear of cycling, especially for women who have greater sensitivity to these risks. Studies have found that off-road paths, separation from traffic, streetlights, and daylighters are more significant for women cyclists (Dolati, 2014; Garrard et al., 2008; Handy, 2014).

Addressing safety in cycling should also take into consideration a most serious concern of women in public spaces—sexual violence. This aspect of transport safety is a serious issue for women. It encompasses women's mobility, access to opportunities, and health and well-being. Due to its scope and negative impact, UN Women has even launched a flagship program on “Safe Cities and Safe Public Spaces” across the world.

Compared to car or public transport vehicle drivers or passengers, cyclists are more exposed to their environment. Bicycles and safety gear are not able to provide full concealment or protection for the riders. As a consequence, women cyclists are not only more exposed to road hazards but to sexual violence as well. Thus, considering the life-threatening conditions that cyclists must face on the road and the high incidence of sexual harassment in Metro Manila, cycling becomes doubly risky and unappealing to women.

*The material and symbolic aspects of access to cycling among Filipino women*

Access to cycling has two components—the material and the symbolic. In cycling, this points to the lack of relatable images of cycling as a transport mode for women and women's lack of personal history with cycling. As a transport issue in the Philippines, the data highlight the economic aspect of transport access due to poverty. Applying a gender lens, this economic issue becomes a social issue as well since the literature reveals that women have less access to transport modes, including bicycles, as compared to men.

As mentioned before, Filipinos living in extreme poverty spend the least on transportation. Poor women are doubly disadvantaged because they have less access to transportation. So in promoting cycling to women in Metro Manila, one important consideration should be the economic capacity of the poor to invest in a bicycle, and the gender differences in the allocation of resources among households, specifically for transportation.

Access does not only pertain to the material but also to the symbolic. Women do not have access to images of cycling either through personal experience or popular culture. Despite the individual and community benefits that cycling has to offer, it has yet to be adopted on a mass scale especially among women. On the other hand, car ownership remains to be among Filipinos' top indicators of a good life, as revealed by the *AmBisyon Natin 2040* report by the National Economic Development Authority. This indicates the mass appeal of cars as a transport mode for the majority of the population, something that the bicycle does not have. Unfortunately, the discourse of sustainability of bicycling vs. car riding is not enough to inspire people to adopt cycling in Metro Manila.

Curiously, the incompatibility of cycling with normative ideas of femininity has less to do with the physical demands of cycling as a physical activity (in high-cycling countries like the Netherlands anyone—young and old, men and women—cycle) than with their concern about keeping up with the standards of the feminine, particularly in looking fashionable. In Metro Manila, images of cycling are not associated with traditional markers of femininity such as dresses, a made-up appearance, and delicate comportment. There are more male cyclists on the road, making the connection between cycling and masculinity stronger. To make cycling inclusive for all women, there is a need to make the display of femininity possible while cycling, as well as a need to eliminate gender stereotypes that limit women's participation in activities such as cycling for fear of these being judged as unbecoming of a woman. In other words, cycling must be possible for all women—from those

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who want to stay fashionable while cycling to those who wish to defy gender stereotypes—without social judgment and penalty.

### ***Women's participation in Metro Manila's transport governance***

Women's participation in transport governance as a dimension in promoting women's cycling is especially salient in Metro Manila because of the lack of mechanisms for citizen participation and gender sensitivity in its transport development. Women's participation requires both women leaders and active women constituents.

Among both cycling advocates and feminists, a gender-responsive urban cycling advocacy is still relatively unexplored. There is a lack of strong constituency for the cause. Women leaders and women's mass support is required to push for the women's agenda in transport development (WiTL, 2017), including cycling advocacy. However, no literature has been found nor any search engine hits that describe any local women's organization's engagement with cycling. Women's transport issues are commonly subsumed under other issues, such as the rising prices of fuel, commodities, and transport fares.

Among cycling advocacy groups, leaders and members are predominantly male. Although there are initiatives that specifically encourage women cyclists, like the women's ride organized by the Firefly Brigade, the specific dimensions of cycling promotion for women that is anchored on women's needs, interests, issues, and concerns have yet to gain widespread appreciation among cycling advocates.

### **Summary and Conclusion**

Promoting women's cycling in Metro Manila is a daunting task because it not only requires the city to re-examine the principles and mechanics of its transport governance, but it also demands a cross-disciplinary perspective and approach to gender, cycling, and transport. Safety is not just a matter of building safe cycling infrastructure but also working against sexual violence in public spaces. Access does not only pertain to financing in order to procure a bicycle but also confronting gender stereotypes and including maintaining feminine appearances as a legitimate cycling issue. Women's participation in transport governance invites the women's movement to support cycling for women, and urges cycling advocacy groups to put emphasis on women's leadership and membership among their ranks.

Cycling without women's participation puts its status as a sustainable transport mode on shaky ground. Yes, it offers advantages to the health of people, communities, and the environment, but sustainability means equitable development as well. Therefore, if cycling is exclusionary to half of the population, then it is not completely sustainable. Should the promotion of cycling, therefore, be abandoned? Not yet. This paper highlights the fact that the key dimensions that must be addressed in order to encourage women to cycle are not personal traits and attitudes that individual women must strive to overcome, but rather economic, social, environmental, and governmental conditions that are still possible to transform.

### **Ways Forward**

This paper is a preliminary analysis that hopes to provide a starting point for the discussion on women, cycling, and sustainability. The prominence of cycling in the sustainable transport discourse and its nascent stage of adoption in Metro Manila provides an opportunity for gender advocates to come in and work towards making cycling responsive to the needs and interests of women.

The limited pool of data which this study relies upon makes it neither conclusive nor exhaustive. Thus, in order to strengthen the call towards a gender-responsive cycling advocacy, further evidence to support the claim of this paper must be gathered. Particularly, case studies of cities with long-term cycling initiatives, such as Marikina, can be done with particular attention to women's rate of cycling, the factors that led to women's adoption of cycling as a transport mode, the benefits that women have acquired from using cycling as a transport mode, and the needs of women cyclists that are yet to be responded to. In this way, it will be possible to establish and identify the conditions that will lead to adoption while gathering further data to make cycling-related transport development more responsive to women. The key dimensions of women's cycling promotion in Metro Manila that are described in this study could serve as an initial guide in the development of the research design.

The data from the said research could be used to introduce gender-responsive cycling principles and strategies to cycling advocacy groups and related government institutions, as well as to muster the support of women's organizations in promoting cycling as a transport mode to women. A feminist cycling advocacy group or a special interest circle within women's organizations and cycling advocacy groups could be organized to lead the enactment of these recommendations.

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