A CHALLENGE SHARED: IS SOUTH AFRICA READY FOR A PUBLIC BICYCLE SYSTEM?

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ABSTRACT

The concept of public bikes, or bike-share programmes, has been receiving an increasing amount of attention from transport policy makers and agencies internationally. From the most famous, Velib in Paris, to the most recent, Barclays (Boris' Bikes) in London, and the largest, Hangzhou, in China, there are now more than 130 city bike-share systems worldwide.

These systems have been lauded as significant public transport projects in their own right, as well as important urban economic development, urban quality, public health, climate change and civil society interventions. They are usually local-authority owned, fully automated and available 24/7 to all registered users, although small-scale, manual systems are important in many cities.

Based on an analysis (field and desktop research) of the London, Paris and China systems, and the personal experience (with partners) of setting up the first system of its kind in Africa (in Cape Town), this paper considers the institutional, environmental, financial and cultural obstacles to implementing bike-share systems locally (specifically, Cape Town). Such obstacles include the minimal bicycle infrastructure; theft and vandalism; compulsory helmet legislation; outdoor advertising by-laws; and lack of public funding.

The paper also suggests ways in which these obstacles could be – and have been – overcome, and considers whether public bike schemes could play in cities such as Cape Town that have low levels of urban utility cycling.

1 INTRODUCTION

Bicycle sharing systems, also known as public bike, free bike or city bike schemes or systems, are important sustainable transport interventions, usually aimed at people who don't own bicycles, and are designed to complement public transport. Unlike with most bike rentals, users can pick up a bicycle at one location and drop it off at another. The systems offer fast and easy access, with no large deposits or documentation. Pricing systems encourage short commuter trips. Often such systems are government subsided, or funded through advertising revenue.

Bike rental, or bike hire systems, on the other hand, are usually privately owned and for profit, and rent bicycles for a few hours or per day. They're aimed most often at the tourist or leisure market. (Schroeder 2010a)

The concept of public bike share (PBS) has been receiving an increasing amount of attention from transport policy makers and agencies internationally. From the most famous, Velib in Paris, to the most recent, 'Boris' Bikes' in London, and the largest, Hangzhou, in China, there are now more than 130 city bike-share systems worldwide.

Public bike share systems have also been lauded as significant public transport projects in their own right, as well as important urban economic development, urban quality and public health interventions. Such systems promote low-carbon transport, assist concurrent improvements in air and urban quality, ease road traffic congestion and parking requirements, and play an important role in climate change mitigation and adaptation. In addition, they are cheaper than public transport feeder systems such as shuttle services¹. (Dhingra 2010)

And they have been shown to increase bicycle mode share: In Barcelona, for example, bicycle use increased from 0.75 per-cent in 2005 to 1.76% in 2007, the year Bicing was launched, while in Paris, mode share increased from 1% in 2001 to 2.5% in 2007, the year Vélib' was launched. (DeMaio 2009)² The Central London Bike Hire Scheme (known as Boris' Bikes) is one of the strategies by which Transport for London intends to grow the percentage of bicycle journeys from 2 to 5% of journeys by 2026. (Davis 2010)

South Africa, too, aims to promote low-carbon transport and increase the percentage of cycling journeys in both urban and rural areas (NDoT 2006). Currently, utility or urban³ cycling is almost absent in South African cities. In Cape Town, for example, approximately 0.5% of the population use a bicycle as transport. National figures are similar, also at less than 1%. (NDoT 2009)

There is no doubt that utility cycling could play an important mobility role in South African cities, where more than half of the population has no access to a private car, public transport does not serve commuters' needs, and 30% of residents live below the poverty line. (CoCT 2010) This transport mode could contribute to South Africa's national policy goal (NDoT 2006) that no commuter should spend more than 10% of his or her income on commuter transport.

However, public bicycle systems are not uncritically the most effective way in which to attain these goals in South Africa. These systems are likely to suffer not only from the cited reasons for South Africa's low level of utility cycling (road safety, lack of road space, lack of infrastructure and bicycle facilities, steep slopes, high wind, low status) (NDoT 2009, Jennings 2010), but also from additional institutional, financial and cultural obstacles, such as theft and vandalism; compulsory helmet legislation; outdoor advertising by-laws; and lack of public funding.

¹ Not to mention cheaper than building roads, vehicle-parking, etc.

² However, bicycle infrastructure improvements invariable accompany bike-share implementation, and it is difficult to be certain whether it's the bike share or the new facilities that increase mode share. Or simply the fact that cycling is more visible and more socially acceptable. The advent of Velib, for example, also saw an increase in the numbers of people using their own bicycles.

³ Urban, utilitarian or commuter cycling, used interchangeably, refers to cycling mainly as transport, rather than a recreational or sporting activity (Cycling Inclusive Policy Development: A Handbook)

2 THE SOUTH AFRICAN CONTEXT: NMT POLICY

South Africa's National Department of Transport has developed a Draft National Non-Motorised Transport Policy that aims to increase the role of NMT as a key transport mode, integrate NMT as an essential element of public transport, and provide a safe NMT infrastructure, as well as allocate adequate and sustainable funding for the development and promotion of NMT. (NDoT 2009) The policy also prescribes the need to promote NMT as a feeder mode to other mode of transport – an important benefit of bike-share schemes (see above).

All metro and district municipalities are required to develop Integrated Transport Plans (ITPs), which cater for cycling, with appropriate modal split, and set concrete goals and methods by which to achieve this split. The Western Province and the City of Cape Town have each formulated draft NMT strategies and master plans (PGWP 2009, CoCT 2005), which aim to increase cycling and encourage walking by creating a safe and pleasant bicycle and pedestrian network of paths to serve all the citizens in the Cape Town Area.'

3 PUBLIC-FUNDED BIKE RENTAL PLANS IN SOUTH AFRICA

Public bike share came to the attention of South African transport planners ahead of the 2010 FIFA World Cup. For example, the City of Cape Town has hoped to leverage FIFA 2010 World Cup infrastructure spend to pilot two bicycle rental projects.

In an early business plan for the city's Integrated Rapid Transit (IRT) system – now known as MyCiTi – consultants and planners had included a public bike system. This was later withdrawn as project budgets were cut.4 The current MyCiTi business plan notes, instead, that the City will provide the necessary parking and infrastructure for the operation of pedicabs (cycle cabs), rental bicycles and secure bicycle parking (CoCT 2010b) but will not in fact operate such a scheme. Subsequent media coverage quotes the City as simply saying its new NMT projects will result in 'business opportunities such as Rent-a-Bike, where people can rent a bicycle to travel around the CBD and Cape Town.' (CoCT 2010c)

The City of Cape Town had considered a pilot bike-rental system between May and August 2010, for 2010 FIFA World Cup event and visitor transport. (CoCT 2010c) The plan was to have six rental stations around Green Point Urban Park, the V&A Waterfront, the Convention Centre and the Cape Town Station. It was intended as a hybrid system, largely to market and promote cycling rather than address transport challenges during the event, and to assess the need for an ongoing system. The service was to be aimed at tourists, and offer daily or hourly rentals, as well as tours. Rather than the self-service systems used by public bike schemes, this was to have been labour intensive, with bicycles and helmets under lock-and-key at depots, staffed by mechanics who would administer the system, guard, clean and repair bicycles as necessary. All bikes would be stored at a central overnight storage depot. The pilot project was not implemented, due to lack of funding, among other reasons.

The City of Tshwane also hoped to introduce a bicycle rental project during the World Cup, by partnering with the Department of Transport's Shova Kalula programme to source bicycles for rent. A labour-intensive system similar to that of Cape Town was proposed, where guards on bicycles would patrol designated cycle routes to provide a greater measure of safety and reassurance for potential cyclists anxious for their safety. After the

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⁴ Personal conversation with Elias Tukushe, Head: NMT and Universal Access, City of Cape Town

World Cup, the bicycles could be retained for ongoing rental. (Mohammed 2009) This, too, was not implemented.

4 CASE STUDY – PRIVATE-SECTOR BIKE NETWORK IN CAPE TOWN

Toward the end of 2009, a private entrepreneur set up a bicycle rental network in scenic suburban Cape Town, and in mid 2010 with two partners began to extend operations to the central city (CBD).

The system was largely designed for tourists, as well as intended as a pilot project for commuter rentals. Bicycles were sturdy, seven-speed commuter bicycles (at 20kg they are lighter than most public bike rental bikes), equipped with reflector lights, mudguards, a lock and a carrier rack.

The suburban facility was available at four or five outlets along the rail corridor, and the central city facility was to be available at three outlets along or near the new bicycle lanes.

In order to rent a bicycle the user had to provide a valid credit card, and the full replacement cost of the bicycle was kept as a deposit until the return of the bicycle (at any of the network outlets).

Each facility was a partnership between the rental operator and the outlet (such as a sports equipment rental outfit, a bike shop, a coffee shop or similar). The operator provided and maintained the bicycles and helmets, handled promotion and marketing, and provided the legal and administrative framework and the legal liability; the outlet provided the storefront and the interaction with the customer, processed the payments and ensured the security of the bicycles while on their premises.

Four bicycles per docking station were displayed outside the storefront (usually the sidewalk), and locked with traditional chain and key. Customers needed to enter the nearby store, complete the necessary paperwork and then rent the bike. Docking stations and bicycles were carried indoors for storage in the evenings to prevent theft and vandalism.

Since 2004, South African law makes it compulsory for cyclists to wear a helmet on public roads; hence all bicycles were rented with a helmet. Customers were therefore given the option of taking a hairnet to wear under the helmet, and some chose to wear a cap instead. Helmets were washed regularly (but not after every rental). The cost was fairly standard for bicycle rental in Cape Town, at R120 per day; operating hours depended on those of the outlet. In the event of a mechanical problem, customers were to dial an emergency number and a maintenance vehicle would either fetches them and return them to the outlet, or deliver another bicycle to them.

5 CHALLENGES FACING BIKE SHARE IN CAPE TOWN (AND SOUTH AFRICA)

"There are no guarantees... "5

5.1 Estimating demand

The demand for rental facilities is difficult to measure. Very little detailed non-motorised transport data is available, as it is not a regulatory requirement to collect such data (PGWP 2009) in South Africa. Most travel surveys record only general traffic volumes, and most surveys exclude walking, cycling and motorcycling trips.

This makes it difficult not only to include cycling and walking in integrated NMT planning, but extraordinarily difficult for an investor, project planner or business modeller to estimate demand for a public bicycle scheme.

Current bicycle rental businesses in Cape Town are barely covering costs or breaking even⁶. During peak tourist season in 2010-11, for example, a bicycle rental at one of Cape Town's premier tourist destinations, the V&A Waterfront, was renting out one bicycle day, but needs to rent at least six a day to break even. Not a single local has rented a bicycle.

"It's really tough out there," says the owner: "All our customers are Dutch, German, Belgian or Canadian. I don't think South Africans are ready for this. Some locals have said, 'oh what a wonderful idea, but we can't rent now as we don't have our cycling kit here."

"A good month during peak season is two rentals a day," says another bicycle rental owner. "We need to rent three times that number to cover our costs."

This is entirely at odds with a business plan for a pilot project during the 2010 FIFA World Cup, for the same area within the city. This plan estimated a potential 35 000 riders a month, and a high-net profit for the operator. (CoCT 2010c) A recent private sector business plan, also for the central city, proposes a system with 110 bicycle stations and 1 100 bicycles, while another accepted that four stations, with four bikes each, would be a good start⁸.

Compare this take-up of bike-rental in Cape Town to the use-rates of JCDecaux's Lyon system in 2005 - this was the first of the 3rd generation, high-tech and high-publicity international public bikes schemes. The system launched with 1 500 bikes, and each one was used an average of 6.5 times a day within the first year (DeMaio 2009) Two years later, JCDecaux launched its Paris bike-sharing program, Vélib', which today has around 23 600 bikes. Hangzhou, China, has 50 000 bicycles, each one used around 8 times day. Shanghai has 28 000 bicycles, with 5.7 rides per bicycle per day. (Schroeder 2010b)

Without a clear public demand for the use of a public bike scheme, there is little way of knowing whether the system will simply be a large white elephant gathering resentment, bankrupting the private-sector partner or generating discontent from public funders and ratepayers.

⁵ Personal conversation, Ester Anaya, September 2010

⁶ Personal communication with the owners of three local bicycle rental businesses in Cape Town (January 2011).

⁸ As above

5.2 Ownership and revenue models

Bike-share ownership models include a full government-owned model, where the local authority operates the PBS as it would any other government service; an agency model; a university-run model, or even a private-sector model. In some instances, the public sector retains authority and supervision, while a private operator runs the system and assumes all risk. (Pardo 2011, DeMaio 2009)

The most common model to date is the advertising company model. In Paris, the operator of Velib is the outdoor advertising and street-furniture company JCDecaux. Decaux covers the entire cost of the system through exclusive rights to advertise on and operate bus shelters and billboards. All the revenue collected from Velib users goes to the City of Paris, although the City does not pay for the system itself (Jennings 2008). Cape Town's bylaws, however, do not permit the level of exclusivity required by this model.

Bike share is currently not an item on any local or provincial authority's transport budget, and if it were, would risk attracting criticism from organisations such as COSATU, ever watchful of bicycle infrastructure that is merely 'a gimmick for the wealthy'. (Ndenze 2011)

The cost of implementing a third-generation, smart-card and automated PBS is estimated at around USD 2 000 per bike (DeMaio 2009), an amount that neither private investor nor government budgets have to date been able to raise for bike-share in Cape Town. The Western Province NMT Strategy does highlight the role the private sector could play in promoting cycling, through rental projects for example, although the challenges outlined in this paper meant that investors have remained cautious. The City has indicated that the preferred model would be full government ownership, with the outsourcing of operations.

5.3 Determining the purpose of a public bicycle system

For whom would a public bicycle system in South Africa be designed? The urban poor, for whom cycling is an acceptable mode of transport but who cannot afford to own a bicycle? A climate change mitigation intervention, aimed at the wealthier, who travel by car to their place of employment, but might rent a bicycle for inner-city trips?¹⁰

It is not the mandate of government to provide leisure facilities for tourists. Bike share and NMT facilities are transport interventions, aimed at reducing road congestion and improving bicycle mode share. South Africa's NMT policy is clear: it addresses principally the needs of the poor, and NMT interventions should show the benefits for the poor. (NDoT 2009) In addition, the urban poor is currently and is likely to continue being the most regular NMT user, and hence every effort should be made to ensure that they are not forced to shift to using a private car, due to lack of NMT facilities or adequate public transport. (Dhingra 2010, Jennings 2010)

In Cape Town, available data indicates that most urban cyclists are from poorer, outlying areas, far from formal transport interchanges at which PBS depots could be sited, and for whom travel distances are longer than 30km (NDoT 2007, CoCT 2008, Bechstein 2010, Jennings 2010) Not all of these cyclists own their own bicycles, and many borrow a bicycle from family and friends (often a bicycle donated to wife, son or daughter through one of many international bicycle donation programmes); they are not able to afford a bicycle of their own. Some riders purchase their bicycles from 'the Chinese shop', 'Cash Converters',

⁹ Personal conversation with NMT officials

¹⁰ Noting that bicycles are not permitted on public transport vehicles, so cyclists are not able to travel with their own bicycles; the dearth of safe bicycle storage or lock-up facilities makes a quick trip by bike almost impossible...

or from 'a friend'; are given their bicycles by 'the boss', or pick them up from the dump and build them up again. (Jennings 2010)

Cyclists who do not own a car, or who currently borrow bicycles, are unlikely to be able to afford bicycle rental. (Bechstein 2010, Jennings 2010) On the other hand, car-owning cyclists might be persuaded to ride their own bicycles with improved bicycle infrastructure (cycle ways, secure and abundant bicycle parking, shower facilities), and if bicycles were permitted on public transport¹¹. Costly public bicycle systems might not be the most effective way at increasing the rate of bicycle traffic¹².

5.4 Payment models and technology

Payment models of successful PBS are by subscription (membership pre-verified by credit card or pre-paid deposits). The first half hour is usually free, and rental costs escalate thereafter – to discourage day rentals. (Jennings 2008)

However, in South Africa, there is the risk of risk of alienating poorer people who cannot afford the deposit or do not have a credit card (Pardo 2011); it would be inequitable and unethical for a public service to exclude part of the population on this basis. In addition, the deposits required by all public bike systems (and all rentals and pilot projects to date in Cape Town) are more than the value of a new (low-end) or a second-hand imported bicycle.¹³ In such examples, the urban poor (who may or may not be the bike-share market – see above) are more likely to buy a bike than pay a deposit for a bike they may not use and that will not belong to them. (Jennings, 2010, Pardo 2011)

The most popular PBS internationally are high-tech, with GPS tracking, smart card subscriptions and auto-locking systems. Systems proposed and/or piloted in South Africa are low-tech, with lower initial capital costs and greater opportunities for employment creation. These cheaper options are disadvantaged by their greater risk of theft, and their lack of convenience. (Schroeder 2010b)

What is most attractive about bike share is its simplicity and efficiency, offering the same convenience of a private car or your own personal bicycle. (Britton 2011) Excessive paperwork, the manual recording of customer information, the signing of indemnities, and the interface required between customer and attendant mean that bike share isn't the 'personal rapid transit' that makes it attractive elsewhere. In a city such as Cape Town, where the central city is 'walkable', the system loses its attraction for short trips.

On the other hand, cycle taxis, which have been piloted in Cape Town, offer many of the benefits of bike-share without some of the complications for the user. This system overcomes the challenges of theft, service fees and deposits, station design, paperwork and indemnity, cycling ability and helmet use — and is able to offer employment opportunities as well. In Cape Town cycle taxis have been used as last-mile options with some success, by learners and workers travelling to and from Cape Town rail station. Cycle taxis also encourage users who, due to physical limitations cannot or do not want to ride a bicycle, while still offering a sustainable, low-cost mobility option. (Pardo 2011)

¹¹ What it takes to create a commuter cycling culture is beyond the scope of this paper.

¹² Not only so, but the success of the fan walk during the FIFA 2010 World Cup suggests that it is easier to persuade people in Cape Town to walk short distances than ride. If the purpose of a bicycle-share system is to improve inner-city liveability and urban quality, improved pedestrian facilities might be a more appropriate intervention.

¹³ Imported second-hand Dutch or German bicycles, for example, cost from R300 to R800; new low-end mountain bicycles cost upwards of R800. Rental deposits cost upward of R1 200.

5.5 Urban sprawl

Cape Town is a particularly low-density, sprawling city with few economic centres and little integrated route choices. It's not unusual for people to spend up to four hours commuting over distances of 60-80km each day.

Public bicycles, however, are intended for the short-trip user — from home to the station, from the station to work. In Paris, for example, 2km is the average distance of a trip, and 96% of users ride for 20 minutes or less. (Jennings 2008) In Hangzhou, 95% of the trips are less than an hour. (Schroeder 2010b)

The Central City, the area upon which all bike-share proposals have focused, can be traversed by foot fairly easily in less than an hour (around 5km). So unless a bicycle is clearly the simplest and most efficient way in which to make short inner city trips, walking or taking a minibus will remain the mode of choice¹⁴.

5.6 Theft

The risk of bike theft and vandalism is relatively high, even is high-tech systems such as Velib. In Cape Town, and South Africa, where theft is significantly more common, and where there are few secure bicycle lock-up facilities, this risk is even greater.

5.7 Rental outlets

Most international bike-share systems have constructed rental depots on converted parking bays, where each station takes up what used to be between three to five bays.

In Cape Town, strict by-laws govern the use of public sidewalks and urban open space. And although restaurant tables and motorcycles seem to have 'licence' to encroach upon new pedestrian and cycling paths in the inner city, the process of obtaining permission for bicycle racks outside potential rental outlets (coffee shops, etc) proved too onerous for new network operator described above. "In the end, after talking to countless people at the local authority, waiting for them to get back to us, more meetings, more paperwork, we ran out of time and we lost momentum," said one of the local partners. "The red tape was too sticky. The only way to access sidewalk space is if you are in partnership with the City, or if the City is the owner of the project. The private sector can't do it on its own."

5.8 Mandatory helmet laws

"I don't want to wear a helmet that someone else has perspired into." 15

The mandatory helmet law in South Africa would make it difficult for customers to legally use any bike share system.

Of all countries with public bicycle schemes, only Australia has a mandatory helmet law. The Melbourne Bike Share, introduced in June 2010, requires that a customer must either bring his or her own helmet or buy one from a nearby shop ¹⁶. "In an attempt to rescue the failing system, the Victorian Government has opened helmet vending machines at Melbourne University, Southern Cross Station and 30 city convenience stores. The vending machines allow bike share users to rent a helmet for \$5 each. After their ride, renters can then return their helmets for a \$3 refund."

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¹⁴ And there's nothing wrong with choosing walking rather than cycling!

¹⁵ Potential customer, Kalk Bay, November 2010

¹⁶ Email discussion with Dr Simon Batterbury, Director, Office for Environmental Programs, University of Melbourne

The launch of a bicycle-sharing scheme in Mexico City has seen the revocation of Mexico's compulsory helmet law, and a similar revocation is likely to accompany the new bike-sharing scheme in Israel. Bicycle activists in Melbourne are lobbying for a similar moratorium on the helmet laws there.

In South Africa, hairnets for use under helmets have not seen a high acceptance rate. Most bike rentals use disinfectant spray and frequent washing instead.

5.9 <u>Lack of cycling culture and infrastructure</u>

There is no evidence to show that public bicycle systems create a commuter-cycling culture, although their success depends to a large extent on the existence of such a culture. In addition, evidence does suggest that an adequate bicycle infrastructure is a prerequisite for the success of PBS. (Anaya 2010)

Cape Town has a poor (albeit growing) commuter cycling culture, and minimal (although improving) bicycle infrastructure ¹⁷. The overwhelming majority of people who own bicycles in Cape Town do not use them for transport. Their reasons include lack of cycling facilities, safety concerns, theft, aggressive driver behaviour, lack of road space, lack of inter-modal transport integration (where bicycles are not permitted on public transport), and the need for a car during work hours. (Jennings 2010)

This lack of inter-modal integration may prove the most compelling reason for PBS, as it is not easy for bike-owners get take their own 'vehicles' to where they need to go.

CONCLUSION

Public bicycle systems are aimed at people who need a quick, efficient and uncomplicated way to get to and from their public transport mode of choice. The systems offer fast and easy access, with no large deposits or documentation. Most trips are short – less than half an hour, or 2km or so.

South African cities, however, have neither the densities nor the widespread public transport networks of the cities with successful public bicycle systems. Here, distances between formal transport interchanges and destinations are long.

Furthermore, the success of bike share depends on the quality of the cycling infrastructure, an accurate estimate of demand, a social acceptance of cycling as a mode of transport, and effective integration with public transport interchanges.

Systems proposed in South Africa, designed to create jobs, with guards, lock-and-key and no-pre-registration, are cumbersome and counter-effect the quick effectiveness of the public bike concept. In many instances it may be quicker to walk.

In addition, government struggles to provide for basic transport needs, and even with the best intentions, is likely to encounter opposition to developing public-funded bike-share. People who don't own bicycles are unlikely to be able to afford the deposits, and most people who already own bicycles do not use them as transport.

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¹⁷ There are about 200km of disconnected cycle lanes, of which around 20km are separate cycle ways. Only one rail station (Kuils River) has a bicycle lock-up facility, while eight rail stations across the city¹⁷ have unsecured racks to which users are able to lock bicycles. Bicycles are not permitted on any public transport vehicles at present.

More effective ways of increasing bicycle mode share and encouraging a commuter cycling culture may be to enable people to travel with their own bicycles (permit bicycles on public transport), decrease the risk of theft (provide secure lock-up facilities), facilitate the affordability of bicycles, and build quality bicycle facilities and infrastructure.

Figure 1: How not to 'do' bike share

- 1. Local political figure decides he wants to get greater glory and votes, do something vastly popular, something very fast, and get it all for free.
- 2. So he whips up interest for a public bike project in his city and goes to one of the advertising-based suppliers or other who will deliver him the profiled service for a low price.
- 3. They agree to do it since he give them everything they are asking for. (Since it's free. Right?)
- 4. The project gets planned and built.
- 5. But someone forgets to analyze and ensure that the high infrastructure specifications that are critical to system success are going to be met.
- 6. The detailed checklists of key points has not been scrutinised with the needed full expert attention and knowledge of international experience and lessons learned (at time painfully).
- 7. There is a gala opening day, everyone gets excited, the local media is there, the ribbons are cut and bingo! The system is up and working. Hurrah!
- 8. But the wonderful new service does not offer the necessary high-grain area-wide coverage, stations and collection points are poorly placed, so the whole thing is vastly underutilized. Instead of 1-12 riders/ay, they are getting less than half that.
- 9. The bike redistribution system is not working properly, so many potential users after a certain number of frustrating episodes simply stop relying on it for daily use.
- 10. "Maintenance is all" Everybody knows that but somehow it's not being delivered in the free lunch project.
- 11. The anticipated income from subscriptions is not coming in. (And we know who will foot that bill.)
- 12. Maintenance was vastly under budgeted and is neglected.
- 13. Theft, vandalism, accidents, inadequate enforcement,
- 14. The project slowly grinds to a halt, with only vestiges maintained.
- 15. The local hero who started it all has been elected to another (distant) office and is not around to take the blame.
- 16. And so it goes.

Eric Britton, World City Bike

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REFERENCES

- 1. Anaya, Ester (September 2010), Unpublished draft paper: 'Are Public Bikes Systems Good for Cycling? The View From Barcelona', Bicycle Politics Workshop, Centre for Mobilities Research, University of Lancaster
- 2. Bechstein, Eva (SATC 2010), 'Cycling as a Supplementary Mode to Public Transport: A Case Study of Low Income Commuters in South Africa', 29th Southern African Transport Conference
- 3. Britton, Eric (2011), 'World City Bike Forum'
- 4. City of Cape Town (October 2005), 'City of Cape Town NMT Policy and Strategy'
- 5. ——— (2008), 'A Study of Non-Motorised Transport Movements at Key Public Transport Facilities in the City of Cape Town Area'
- 6. —— (April 2010a), 'City-Wide Non-Motorised Transport Network Plan: Northern Region'
- 7. —— (July 2010b), 'MyCiTi Business Plan for Phase 1a of Cape Town's Myciti Integrated Rapid Transit System'
- 8. ——— (2010c), Environmental Resource Management 'Business Plan: Public Bicycle Rental System The 2010 FIFA World Cup'
- 9. ——— (2010d), 'Conceptual Design Report Volume 1: Provision of Professional Services, a City-Wide NMT Conceptual Plan, Infrastructure Audit/Assessment and Implementation'

- 10. DeMaio, Paul. (2009), 'Bike-Sharing: History, Impacts, Models of Provision, and Future', *Journal of Public Transportation*, Vol. 12, No. 4
- 11. Dhingra, Chavvri (2010) 'Public Bicycle Schemes: Applying the Concept in Developing Cities Examples From India'
- 12. Furness, Zack (2010), *One Less Car: Bicycling and the Politics of Automobility* (Philadelphia: Temple University Press)
- 13. Mohammed, Semira (2009) 'Pre-Feasibility Study on Non--Motorised Transport (NMT) in the FIFA World Cup Host Cities: City of Tshwane'
- 14. Ndenze, Babalo (2 February 2011), "Bicycles Lanes Benefit Wealthy DA Voters", Cape Times
- 15. Pardo, Carlosfelipe (2011), 'Public Bike Share Information', ITDP, New York
- 16. Pendakur, VS (2005), 'Non Motorised Transport in African Cities: Lessons From Experience in Kenya and Tanzania', SSATP Working Paper No.80
- 17. Provincial Government Western Province (March 2009), 'Non-Motorised Transport in the Western Cape Draft Strategy'
- 18. Pucher, John, C Komanoff, P Schimek (1999), 'Bicycling Renaissance in North America? Recent Trends and Alternative Policies to Promote Bicycling', *Transportation Research Part A, Vol. 33, Nos. 7/8.* 625-54
- Schroeder, Bradley (January-March 2010a), 'How Public Bicycles Are Working in China', MOBILITY magazine, 32
- (September 2010b), 'Bicycle Sharing (Public Bike) in China', World Share Transport Conference
- 21. Jennings, Gail (September 2010), Unpublished draft paper: 'Into the Headwind: The Visibility and Purpose of Cycling in Cape Town, South Africa', *Bicycle Politics Workshop, Centre for Mobilities Research, University of Lancaster*
- 22. (September-November 2008), 'Free-Wheeling in Paris', MOBILITY magazine
- 23. South African National Department of Transport (December 2009), 'Draft National Non-Motorised Policy'
- 24. ——— (January 2007), 'Preliminary Results of the National Travel Survey (2003)
- 25. ——— (2006), 'Moving South Africa: A Transport Strategy for 2020'