

Let's Cycle in Singapore!

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Introduction

Cycling has been a sticky public issue in Singapore. Although not being a major mode of transport, it has sparked public concerns and some times hot debates in the last five years in this new millennium, most of which revolve around issues like safety, death of cyclists, sharing of pavements. Hardly any serious research was done on the impact of cycling on traffic or the feasibility and potential of developing cycling as a mode of transport in Singapore. In this essay, I look at the past by referring to newspaper coverage on cycling or cycling-related issues (mainly *Straits Times*), from which I know about the public's concern and to some extent the authority's response. Rather than try to resolve all the problems and conflicts regarding cycling, I propose to promote cycling in Singapore as I may be a promising mode of transport.

Cycling-related issues in the past 5 years¹

Conflicts between pedestrians, cyclists and motorists

Most times, people debate over whether cyclists should ride on pavements. People in favour of pedestrians say they have the right of pavements and cyclists riding on pavements are reckless. They complained about some cyclists cycling at high speed, hitting people in bus stops, knocking down children walking to school, and not apologizing for hitting people. On the other hand, cyclists seem to be very innocent. They emphasize it is too dangerous to ride on the road while chasing by a car, a bus, or even a lorry. And they give real cases that their relatives or friends who were hit by vehicles. Some protests against imposing fines on cyclists cycling on pavements as it may endanger cyclists' lives by forcing them to ride on the road. Of course, complains also go to motorists who drive passing cyclists like crazy and sometimes even purposely force the cyclists to give way. Motorists, although being the most privileged group, also criticize the cyclists on not following traffic lights, riding against traffic flow.

Accidents and Death of cyclists.

Most cases of accidents of cyclists reported in *Straits Times* are fatal and caused by cyclists being hit by vehicles. I am able to pick 7 cases of published fatality from 2000 to 2005 March. 3 cases occurred at junction or pedestrian crossing. 2 cases are children and 2 cases are old folks (>60 years). By looking at statistics from the Singapore Police Force, I can see Pedal cyclists, although a very minor group of road users remain suffering from high fatality in the past few years (Table 1). The contribution of cyclists to total fatality is about 6-8%. The motorcar users although the biggest group of road users comprise only about 12% of total fatality while the motor-cyclists being the most vulnerable group contribute about 50% of total fatality. Intuitively, we can perceive that the car users are much better protected, motor-cyclists

¹ Refer to Annex 1 for a list of news from last 5 years.

apparently the least and pedal cyclists also suffer from high risk. (Statistic analysis should be performed to confirm the significant difference between each group contributing to fatality, but without knowing the total population of each group, it is not possible.)

Table 1. Number of fatality of pedal cyclists

Year	2001	2002	2003	2004
cyclists	12	16	17	17
Total	194	199	211	194
% of total fatality	6.19	8.04	8.01	8.76

Source : Singapore Police Force (2005), *Statistics* <http://www.spf.gov.sg/>

Safety measures and education.

Every time when a fatal case of cyclist occurs, it evokes the public to debate over safety issues. People write to Forum, *Straits Times*, calling the cyclists to wear helmet and one even suggested imposing law. Cyclists are always advised to travel carefully and obey traffic rules. Policy force claims they organise various education programmes or talks to address safety issues.

Positive suggestions – looking at other countries and suggesting building separate lanes.

Although people always get into dispute over cycling on pavements, there are positive suggestions. Some cite their own experience in overseas and suggest looking at how other countries handle problem of cycling. Some also suggest building separate lanes for cyclists while recognising the constraint of land. Some express their willingness to ride bicycle if access to road is easier and safer.

Authority's response – what the Singapore Police Force say:

The Singapore Police Force behaves like a fire-fighter and every time appears to clarify rules and resolve disputes. They assure people who are angry with cycling on pavements that it is an offence. They clarify the driving syllabus mentions cyclists' right after a motorist said he never learned anything about it in driving exams. A reader once suggested imposing a law that all cyclists must wear helmet, however, I did not see any reply from the police.

Parliamentary debates

Despite not being a vital issue, cycling has been discussed in the Parliament regarding safety, accidents, sharing of pavement. In 2003, it was suggested to adopt integrated cycle path with motor lanes like German or Holland road design in view of increasing accidents of cyclists (Singapore Parliament, 2003). The suggestion was rejected as "it would not be cost-effective nor physically feasible, in view of our [Singapore's] limited land, to set aside dedicated road space for other vehicles, including bicycles". (Singapore Parliament, 2003) The debates arose as there had been an increase in fatality of cyclist over the preceding year. The Minister of State for Transport was questioned whether any serious consideration of rising fatality and the possibility of building cycling path. The minister rejected the request as he said cyclists only make up of 1% of road users and it was not wise or feasible to give up road to them. The

questioner refuted the minister's reply by giving real life account that many students in Tampines use bicycle to go to school. And she asked for doing a survey but no reply was given.

Alternative usages of cycling

It is no doubt people cycle as a means of exercise and sports. There is also a Singapore Amateur Cycling Association, however, which does not really address the significance of cycling as a mode of transport. Notably, cycling has played big role in charity. Some people cycle for thousands of miles to collect funds. And even a local NGO called Bike-Aid was set up in 1992 which raises funds for charity by cycling and organising cycling events.

Analysis of the issues

Having presented some facts of the past few years, I will analyse these facts. Most of the news is just concerned about cyclists cycling on pavements and thus conflicts arise between pedestrian, cyclists and motorists. While pedestrians and cyclists are complaining about each other, why did the readers and road users not turn their attention to the motorists especially the car-drivers? They are a major group of road users and they enjoy all the privilege of driving comfortably on the extensive road network in luxurious imported cars while giving out all the pollutants, making all the noise, causing all the congestions and from time to time, killing the life of pedestrians and pedal cyclists. Why can they not share any space with pedestrians and cyclists? They are well protected as seen from relatively low contribution to fatality. I am not suggesting more car-drivers should die every year. The question is, if somebody has to die, why some die much more readily than others?

Another example shows the law may be biased and in favour of vehicle drivers. A Japanese girl was knocked to death by a reversing lorry in the basement carpark. The car driver was claimed guilty and fined \$8,000 and banned from driving for six years. As it was reported, he drove a van which had no rear window. He did not see anyone in the carpark before he got in to reverse his van, which was on a slope (Careless, 2001). From the light punishment, one can see the driver was not judged to be liable. But I wonder why a lorry can have no rear window and the driver cannot see the back while reversing. If having no rear window was the dominant reason for the careless reversing, should the authority who issued the license to the lorry be blamed and acknowledge any responsibility? Even if the girl indeed was more liable, the punishment was by no means serious. Since an offence of damaging public facilities or robbing can be sentenced for cane, why was a cause of death only fined for some cash and some time of free from driving dangerously?

Cyclists in Singapore practically have little legal right or existing space. By law, they are entitled to ride on the road while risking life. An analogy may be "Yes, you have the right to swim, but no swimming pool is provided for you, please swim in the sea with sharks." Some reader of *Straits Times* complained about the enforcement of fines was not seriously carried out. But once you know some policemen have been spotted to cycle on the pavements too (Vincent 2003), you will understand why it is not quite logical to implement the law in a serious manner.

The authority represented by the Singapore Police Force and Parliament members and ministers failed to seriously consider feasibility and potential significance of cycling as a mode of transport. The police merely enforce policy of imposing fines and sometimes do some educational work which cannot solve the problem ultimately. Cycling on the road is definitely very dangerous and may cause high numbers of fatality which the police force does not want to see. But they still have to please the public that they are imposing fines to cyclists cycling on pavements. In a word, the police are in a dilemma and they cannot solve the problem. It is encouraging that a MP proposed to build integrated cycling path into road, however, she failed to convince the minister and I attributed the failure partially to poor understanding of the true significance of cycling as a mode of transport and the potential economic value. She was concerned more about practical issues like number of fatality and children cycling to school. Also, the minister rejected the proposal from a stereotyped point of view. He answered cycling could not be given space and only the motor-vehicles deserve land because he assumed only motor-vehicles can commute people effectively and bicycles is inefficient. It seems unlikely that any investment on infrastructure for cycling would be granted if the perception that cycling cannot be an effective mode of transport still prevails and persists among the authority.

Significance of cycling as a mode of transport and potential economic value

I have mentioned several times the significance of cycling as a mode of transport and potential economic value without giving clear explanation. Now I shall elaborate more on the idea. Before I enter the argument, I need to break people's pre-perception that cycling is not feasible in Singapore.

People have been concerned about infrastructure which will never be a problem technically. Bicycle lanes are much cheaper than roads for motor vehicles and take more people². Parking would not be a problem either since bicycles take minimal space compared to car. Some may argue the hot whether, strong sun shine and frequent rains also make it not quite suitable to ride bicycle. I concede that weather here is not ideal for cycling. But in some cities in China, the average temperature in the summer can go as high as over 30 degrees and sometimes highest one goes over 40 degrees. Yet, residents there still ride bicycles. Singapore is an island surrounded by the sea. The temperature seldom goes beyond 35 degrees. In the morning and night it is pretty cool when the sun light is not so strong and these are times when people travel to work or back home. Rain is heavy when it comes, but frequent rains only come for certain time of the year. Others may say Singapore already has well developed public transport and does not need bicycles. The reply to this is that bicycle is not to replace or compete with public transport, but rather to complement public transport, decrease number of cars and improve traffic condition. This will be elaborated soon.

I have cleared all the doubts that ordinary people hold toward the feasibility of cycling in Singapore. Now I shall propose the idea that cycling can function as a significant mode of transport and has potential economic value.

Needless to talk about health, environmental advantages of cycling which can

² I understand statistics should be provided, but the logic follows person throughput /meter width of right of way.

hardly be assessed economically, I propose cycling as an inter-modal transport mode. In the context of Singapore, it is always inevitable to evaluate economic viability of economic value of any projects. So is the introduction of cycling. Introducing bicycle will definitely need investment on infrastructure such as bicycle lanes and parking space and also maintenance and management. However, compared to investment on road, expressway, mass rapid transport and management of all these, the investment on cycling would be much insignificant. Singapore has already had extensive public transport network like MRT and bus system, so cycling is unlikely to substitute the role of existing public transport network to move people for long distance. Rather, it could be an efficient and inexpensive transport mode for shuttling people between MRT station or bus interchange and their ultimate destination and help hold back the cars users or potential cars users.

MRT is only a rough skeleton of the public transport network and it cannot reach everybody's home or office. Bus does better than MRT in terms of flexibility and proximity to individual's destination. But it is expensive and unrealistic to provide bus service just for covering all the roads and residential areas to meet each individual's need. Above all, road must be built and bus drivers must be paid. Also, regular service must be maintained regardless of different needs at different time and maintenance must be well carried out. Additionally, despite flexibility of bus, congestion and late arrival invariably occur and all these contribute to psychological frustration and economic loss. The advantage of cycling as an inter-modal transportation mode now comes into picture. Bicycle is cheap and the requirement of infrastructure is low. Cycling can go to a reasonably high speed and most importantly it does not need any waiting and boarding/alighting time as one residents in Pasir Ris said, "by the time the bus comes, I would have reached my destination already [by cycling]" (Pasir, 2001). If people can ride bicycle between MRT station or bus stop and house or office, they can live and work further from MRT station. This will reduce the demand of short-distance bus service and reduce some traffic pressure around MRT station or bus stop.

Apparently, it seems cycling may cause less people to take public transport if it does not make any impact on cars or car users, however, cycling does not conflict with public transport. Rather, it would enhance public transport because it empowers people to move between destination and point of public transport service. So it may actually draw the car users to adopt public transport which will significantly reduce traffic pressure and save road space. Also, car drivers may take cycling as an alternative for travelling for short distances which have to be made by car previously. A study done in 1997 in Europe showed 30% of trips in the car cover distances of less than 3 Km and 50% less than 5Km which can be done easily, cheaply and healthily by cycling. (European Commission, 1999) I concede this may not apply exactly to local context, but cycling does have advantages as it does not require any COE, high road tax, or much parking space and fares. What one needs to do is just exercise one's legs. Potential car users may put off or cancel their plan of buying new cars. Reduction in cars would relieve traffic pressure and ultimately benefits the remainders of the vehicles and the whole transportation network. The save in buying cars could also be significant. Cars are produced by foreign companies, so all the money goes to them and does not

benefit local industry except for maintenance. Less cars means fewer roads, less management efforts and less paid for COE and parking fares.

Interestingly, I predict that significance of cycling may go beyond traffic relief and would bring economic values because of change in people's travel behaviour. Cycling empowers people to either rely less on public transport or have better connection with public transport over longer distance. So it can scatter residential areas away from MRT station or bus stop and can help business proliferate away from MRT station. I notice that shopping malls and business tend to concentrate around MRT station in Singapore. If people could cycle between their home and MRT station, they could choose to shop in the shopping malls which are a bit further away from MRT. And because of people's ability to travelling longer, shops would locate further from MRT station to save rental fares and thus the price of goods or services would decrease too. These shops or companies may even provide parking space to attract more customers. And the estate value of these shops would increase and this would benefit the estate owner and construction company. More business, higher estate value, more construction of buildings would eventually contribute to the economic development of Singapore. Other potential invisible economic values may include decrease in social and economic budget devoted to cars and car management, reduction in working hours lost in traffic jam and reduction of health cost due to regular exercise.

Conclusion

In this essay, I look into the current concerns on cycling or cycling-related issues and I propose to promote cycling as a mode of inter-modal transport. I foresee the transportation significance as well as economic value of introducing cycling. Other superior values of cycling have not been discussed in depth as the concern here is how cycling may affect traffic. But it would be more informative and convincing if such aspects could be discussed. I admit only limited facts are collected and thus the some analysis may be biased. Also, the argument is primarily qualitative and thus sometimes not very convincing. Other countries should be examined as well especially nowadays Europeans and Americans emphasize green transport very much and cycling is gaining popularity.

What needs to be done is to conduct serious study on cycling and traffic in local context and present it to the authority and the public. Although the authority is forward-looking in planning the economy of the future, they virtually have no experience and little knowledge on cycling. Their answer is invariably that Singapore is too small and has no space for cycling. Why they cannot see that cycling does not require much space and yet may actually help reduce traffic and save space? We need to change the negative perception of cycling, address the undiscovered significance, and make it in-fashion and modern.

END. 3144 Words

Annex 1. Complete list of news of cycling from 2000-2005 March.

30 April 2000, The National Sports Council organized a mass cycling event to promote the use of the bicycle as a clean and healthy lifestyle tool 2,500 people participated and the oldest was 78. (Jeremy, 2000).

September, 2000, Human-resources manager Pauline Sum, 40, fell off her bike and died. Reason was not reported in *Straits Times*. (Women, 2000) Comments from readers suggested helmet should be worn while cycling in the wake of the death of Pauline. (Prem, 2000).

2 November 2000, Yui Hasegawa, a Japanese girl was knocked to death by a reversing car in the basement carpark of West Bay Condominium in West Coast Crescent. The car driver, 29, was claimed guilty and fined \$8,000 and banned from driving for six years in August, 2001. As it reported, he drove a van which had no rear window. He did not see anyone in the carpark before he got in to reverse his van, which was on a slope. (Careless, 2001)

2 December, 2000, Pasir Ris town council was to build a "Community Mall" -a 3-km cycling track-cum-footpath in Pasir Ris town (Andrianie, 2000) which is consider to have "a strong bicycle culture" (Vijayan, 2000).

25 December, 2000, a Pasir Ris resident Phyllis Chan, had lost five bicycles in the past two years. (Vijayan, 2000)

29 January 2001, Mr Tay Tian Chye, a bicycle shop owner runs an over 50 year's old shop was interviewed. The shop was in Tanjong Pagar in the 1950s, then moved to Chinatown in the 1970s, and recently to Kampong Bahru. The business man complained about he was out bided for a shop in a better location and there were too many competitors.

2 March 2001, Hsu wrote to forum protesting cyclists cycling on walkway and suggested "set rules" for this cyclists. (Hsu, 2001)

5 March 2001, Dhana wrote forum *Straits Times*. He cited the shared walkway and bicycle path between pedestrians and cyclists in Australia. (Dhana, 2001).

5 March 2001, Dokland wrote to forum *Straits Times*. He argued that Singapore is not bicycle friendly as there were "no bike path, no shoulder and no way of crossing" for bicycles. He attributed the poorly developed bicycle infrastructure to the attitude that "bicycling is considered a Third World throwback that should be discouraged". He cited cases that America and European countries were encouraging cycling as it is "environmentally-friendly and healthy alternative to driving a car". (Dokland, 2001)

5 March 2001, Heng referred to Hsu's letter 3 days ago and cited his own case of apologizing to a pedestrian. He thus hoped to "give cyclists a break". (Heng, 2001).

9 March 2001, Norbert, Assistant Director Media Relations (Covering) Singapore Police Force asserted that "cycling on pedestrian walkways is an offence under the Road Traffic Rules referring to Hsu's letter on 2 March 2001.

10 March 2001, Ray wrote to Forum *Straits Times* referring to Nobert's letter the day before. He argued there are different groups of cyclists. Some like household wife, the old and children cannot cycle on the road. And cycling on pavements did not necessarily conflict with pedestrian walking. He wished pedestrians could be open-minded and understand the cyclists.

12 March 2001, Hogan wrote to Forum, *Straits Times* referring too Nobert's letter on 9 March. He urged to strengthen the enforcement of forbidding cycling on

pavements. (Hogan, 2001)

13 March 2001, Dawsan recognized it was dangerous for cyclists to ride on the road and also not appropriate for them to cycle on pavements either, so he suggested building separate cycling lane in new town. (Dawsan, 2001)

16 March 2001, Allen looked at European countries on cycling. According to him, Some European Countries “use several methods, including traffic-calmed zones (where the road layout causes drivers to reduce their speed), traffic reduction, improved layout of road junctions and signs for cyclists”. In Holland where cycling is consider “as a means of transport” (Edwin, 2001), cyclists enjoy priority over cars when crossing road at junctions. Separate bicycle lanes are built and signs for bicycles are put up. In Britain, huge investment went to build national-wide cycle network of 8000 Km³. (Allen, 2001)

19 March 2001, Wu wrote to Forum *Straits Times*. As a pedestrian, a motorist and also cyclist, he did not want bicycles on the road neither on the pavement. He suggested “give [giving] way to those with right of way”. (Wu, 2001)

20 September 2001, A 66-year-old man, who was cycling to work at dawn, is suspected to have been the victim of a hit-and-run driver. He was found dead from head injuries, on a service road parallel to the Ayer Rajah Expressway (AYE). (Lee, 2001)

8 October 2001 About 60 residents in Hong Kah West constituency covering 72 Housing Board blocks pioneered a neighbourhood watch scheme to help reduce crime over a large area. And thy rode bicycle while patrolling

5 November 2001, The cyclist’s town, Parsi Ris was featured. It was described as “It seems as if everyone bikes everywhere in Pasir Ris.” It is worth noting that in Parsi Ris, infrastructure for bicycle was better developed as described in the article. “Footpaths are level with the road so that cyclists do not encounter problems with kerbs”. The pavements are wide. Ramps are built leading to shops and lift lobbies and bicycle stands have also been built around the estate. “A 3-km-long pavement and bicycle track linking major buildings and facilities in the neighbourhood were planned.” And the residents were quite satisfied with the cycling in the neighbourhood except for theft of bicycles. (Parsi, 2001)

25 November, 2001 Some interviewees expressed their opinion on the feasibility of cycling. One said: “Cycling as a form of transportation will take off if roads are more accessible to cyclists.” Another listed some advantages: "You save a lot of time because you don't get caught in traffic jams and you don't have to waste time finding a parking space. You save a lot of money because there is no COE, ERP or parking fines to pay." (Goh, 2001)

28 November, 2001, Tan wrote to Forum *Straits Times* to promote education for the cyclists to ensure safe cycling referring to Goh’s article three days ago.

4 December 2001, Assitant Director of Media Relations Singapore Police Force clarified that driving syllabus mentions cyclists' rights referring to Mr. Tan’ letter on

³ By 2004, the network reached 9300 miles. Source : **Sustrans - the sustainable transport charity**, Bristol UK <http://www.sustrans.org.uk/default.asp?sID=1089735289781> Cited on 11 April 2005.

28 November 2001. (Mah, 2001)

27 May 2002, It was reported that 1 in 3 kids gets head injury from bike fall in a study done by doctors from KK Women's and Children's Hospital (KKH). 27 per cent had crushed a foot. A further 15 per cent had fractured an arm. It was suggested wearing helmet which costs \$30 and \$70 and the risk would be reduced by 85% (Leong, 2002)

16 July, 2002, Elaine suggested passing a law to make the wearing of helmets mandatory for all cyclists. (Elaine, 2002)

17 July, 2002 Yeung wrote to Forum *Straits Times* and disagreed that cyclists should be required to wear helmet referring to Elaine's letter the day before.

3 August 2002 A 60-year old cyclist cycling along Jalan Bukit Merah was hit by a taxi which traveled behind him on the right lane. 6:40 am and died then. (Cyclist, 2002)

5 August, 2002 Teo reported "many previously inaccessible areas of Sentosa will [would] be opened to visitors when its new cycling tracks are ready next month." (Teo, 2002a)

23 August, 2002, Teo reported a new Singapore Visitors Centre offers guided cycling tours of the city. The centre is run by a licensed travel agency called Wheelpower. The director of "Weelpower" commented: "A bike allows you to explore the nooks and crannies around town. There's no need for petrol, paying Electronic Road Pricing charges or parking fees. What could be more convenient? Cycling gives you a sense of freedom. I call it 'cyclology'." (Teo, 2002b)

17 January 2003 Chin wrote to *Today* cycling is feasible and does not require much as the Singapore is small, shops, residential area, eating places and recreational spots are close to each other in a community.

10 February 2003 Christina complained cyclists pose danger to children who walk to school in Forum *Straits Times* (Christina, 2003)

21 February 2003 Mah from Singapore Police Force confirmed that cycling was not allowed on pavement and offenders might be imposed 20 S\$ fines

22 February 2003 Vincent wrote to forum saying he witnessed neighbourhood policemen riding on pavements. (Vincent 2003)

7 March, 2003 Choo wrote to Forum stating that "reply from the Singapore Police Force, 'No cycling on pavements' (Mah, 2003)" showed that the "authorities have no intention of resolving the issues brought up by readers." (Choo, 2003)

11 March, 2003 Sidek wrote to forum in response to Mah's claim of 20 \$ fines. The author hoped the police take the safety of cyclists into consideration too. The author gave examples that his/her father cycles to mosque every morning and his/her grandfather lost life to a bus while cycling. (Sidek, 2003)

19 March, 2003 A 54-year-old bachelor died on Sunday morning after he was hit by a vehicle as he was cycling across a traffic light crossing at the junction of Holland Road, Farrer Road and Queensway at about 8:45am. The driver hit and run. (Cyclist 2003)

15 September, 2003. A Singapore Armed Forces non-commissioned officer was arrested on Saturday afternoon for suspected drink driving after he allegedly

knocked down a cyclist, a 23-year-old NTU student, who died on the spot, in Jalan Bahar. (Driver, 2003)

27 September, 2003. 7 September 2003, Parkview Primary pupil Mohammad Taufik Abdul Rahim, 10, died when he was hit by a bus while cycling across a pedestrian crossing in Pasir Ris Central. (Tan, 2003)

13 October, 2003. Wendy Chan cycled 2,000km journey from Bangkok to Singapore and her efforts got about \$10,000 in donations for the Breast Cancer Foundation. (No, 2003)

14 May 2004. From June 9 to 13, Engineer Felicia Ong would be clocking over 700km peddling from Kota Baru in Kelantan to Singapore. It was to raise funds for charity like Spastic Children's Association and the Kidney Dialysis Foundation and organized by "Bike-Aid Singapore". <http://www.bikeaid.org.sg/> (Long, 2004)

5 June 2004 More top executives are taking off their jackets and ties in favour of cycling togs. This change has been observed by both retailers and the Singapore Amateur Cycling Association (Saca). (Oh, 2004) They mostly regarded cycling as a means of sports.

22, December 2004 Mr Sylvester was pinned under the right front wheel of a bus in Lim Chu Kang Road on 19 December morning while was cycling with a group of 40 cyclists and died 5 days later. (Teh, 2004)

3 January, 2005 About 100 Cyclists gather to raise awareness of safety after Mr. Sylvester died after being hit by a bus. Mr. Ong Kian Min, a Member of Parliament for Tampines GRC and chairman of the Government Parliamentary Committee for Transport, also showed up to give the riders a boost. (Too, 2005)

5 January, 2005 A 59-year-old cyclist died after he was bumped by a lorry at the junction of Jalan Bukit Merah and Henderson Road on 3 January afternoon.

5 February 2005 A task force was formed to promote the safety and interests of cyclists in Singapore, spurred by the recent death of a rider. The new task force will lobby for policy and infrastructure changes to protect cyclists in Singapore and conduct public education campaigns on the need for cooperation between cyclists and other road users. (New, 2005)

4 March, 2005 Cyclists could soon be sharing pavements with pedestrians. During the debate on the budget of the Ministry of Home Affairs (MHA) on 3 March 2005, the issue of cycling was raised again and "Senior Minister of State for Law and Home Affairs, Ho Peng Kee told the House about the possibility of relaxing the pavement ban on cyclists" Also, the Traffic Police are looking into allowing them on sidewalks. (Li, 2005)

8 March, 2005 Tuesday John Toh wrote to forum to advise not to neglect the safety of pedestrians in response to "cyclists may ride on pavements. (4 March 2005)" (John, 2005)

8 March 2005 Another letter to Forum, *Straits Time* Save pavements for vulnerable pedestrians (Anthony 2000)

Annex 2

Car Free Day

Bit information on car free day. The event, celebrated around the globe today, was started in the United States by Senator Gaylord Nelson in 1970 to raise public awareness of environmental issues, giving rise to the world's green movement. (Wee L., 2001)

E = MC2, is Earth = Must Connect and Care. (JOSEPH LAI)

19 April 2001, Responses from the public was not positive. A Toyota owner commented: "They [Singaporean] work hard to earn money and buy cars. You think they'll keep it at home?" Another said : "Anyway, the whole purpose of buying cars is to avoid squeezing into public transport." Those who disagreed argued car saves time and one "cannot argue over the advantages over cars". (Wee. T, 2001)

20 April, 2001, Car free day "failed to get in to gear" as reported by Koh, Wong and Tan. Nevertheless, some people who tried to give up car were featured.

22 April 2001, Lai, a nature park conservation officer was featured. Lai organized out walk for parents and children. He hoped his walks would inspire parents to make nature rambles part of the family culture. (Wee L., 2001)

22 April 2002, 3000 pledged to leave their car at homes on the second Car Free Day.

References

- Allen P. (2001)** Safe cycling : the European way. *Straits Times* 16 March 2001.
- Anthony L.C.H (2005)** Save pavements for vulnerable pedestrians *Straits Times* 8 March, 2005
- Andrianie S. (2000)**, Bright ideas aim to improve residents' lot. *Straits Times* 2 Dec. 2000.
- Careless driving cost a life (2001)** *Straits Times*, 15 August 2001.
- Chin Y.L., (2005)** Vote for pedal power - Bicycle-friendly Singapore is first step to Renaissance *City Today* 17 January 2002
- Christina C.H.M. (2003)** Pavements overrun by cyclists *Straits Times* 10 February 2003
- Choo W.H. (2003)** Time to book errant cyclists *Straits Times* 7 March, 2003
- Cyclist dies after being hit by taxi** *Straits Times* 3 August 2002
- Cyclist dies on his way to meet old friends (2003)** *Straits Times* 19 March 2003
- Dhana S. (2001)**, Walkway solution: shared path. *Straits Times* 5 March 2001.
- Dokland T. (2001)**, S'pore out of step in edging out the bicycle alternative. *Straits Times* 5 March 2001
- Dowsan S. (2001)**, War of the footpaths : Let's seek a way out, *Straits Times* 13 March 2001.
- Driver arrested after cyclist dies in accident (2003)** *Straits Times* 15 September, 2003
- Edwin T.D. (2001)**, In Safe cycling : the European way by **Allen P.** *Straits Times* 16 March 2001.
- Elaine O.M.L (2002)** Make cyclists wear helmets *Straits Times* 16 July, 2002

European Commission 1999. Cycling : the way ahead for towns and cities. European communities.

Goh D.(2001), Have lanes, will travel on bicycle *Straits Times* 25 November, 2001

Heng J., (2001) Give cyclists a break. *Straits Times* 2 March 2001.

Hogan F. (2001), Enforcement of no-cycling on walkways lax *Straits Times* 12 March 2001.

Hsu W. W. (2001) Set rules for cyclists on walkways. *Straits Times* 2 March 2001.

Jeremy A.Y. (2000), Health and fun on two wheels. *Straits Times* 30 April 2000.

John T.B.J (2005) Don't neglect the safety of pedestrians *Straits Times* 8 March, 2005

Koh L., Wong G., and Tan C. (2001) Some people tried ... *Straits Times* 20 April 2001.

Lee H C. (2001), Ex-fireman found dead on road, *Straits Times*, 20 September 2001

Leong P. (2002), 1 in 3 kids gets head injury from bike fall *Straits Times* 27 May 2002.

Leow J. (2001), Riding the storm with family's bicycle shop. *Straits Times* 29 January 2001.

Li X.L. (2005), Cyclists may get to ride on pavements. *Straits Times* 4 March 2005 Friday.

Long ride home (2004) *Straits Times* 14 May, 2004.

Mah A.P. (2001), Driving syllabus mentions cyclists' rights *Straits Times* 4 December 200

Mah P. (2003) No cycling on pavements. *Straits Time* 21 February 2003

New task force to promote cyclists' interests, safety (2005) *Straits Time* 5 February 2005

No stopping this fund-raising cyclist *Straits Time* 13 October, 2003.

Oh B.P. (2004) Execs content on two wheels *Straits Time* 5 June, 2004

Pasir Ris -- the cyclist's town (2001) *Straits Times* 25 November 2001.

Prem P. (2000), Wearing helmets can save lives. *Straits Times* 5 September 2000.

Ray, N.W.L.(2001), Allow cyclists to use the pavement. *Straits Times* 10 March 2005

Sedik S. (2003) For safety's sake, learn to give-and-take *Straits Times* 11 March, 2003

Singapore Parliament (2003), *Parliamentary Debates, Official Report* (16 October 2003).

Singapore Police Force, (2005) *Statistics* <http://www.spf.gov.sg/> Cited 12 Apr. 2005.

Tan. K.O. (2001) To ensure safe cycling, educate road users. *Straits Time* 28 November, 2001

Tan. T. (2003) Two grieving parents visit accident spots *Straits Time* 27 September, 2003

Tan. T. (2005) Bike ride in memory of dead friend *Straits Time* 3 January, 2005

Teh J.L. (2004) Cyclist gets pinned under wheel of bus *Straits Time* 22, December 2004

Teo, G. (2002a) Explore the heart of Sentosa - on two wheels. *Straits Times* 5 August,

2002

- Teo, G. (2002b)** See the city, the ride way *Straits Times* 23 August, 2002.
- Too K.S. (2005)**, Cyclists should ride with care 9. *Straits Times* January 2005 Sunday
- Vincent S.K.H (2003)** Danger at bus stops *Straits Times*, 7 March 2003
- Vijayan K.C. (2000)**, Bike-theft woes plague Pasir Ris. *Straits Times* 25 December 2000.
- Vijayan K.C. (2001)** Bicycle brigade acts to keep down crime *Straits Times* 8 October, 2001
- Wee. T. (2001)** One for the road *Straits Times* 19 April, 2001
- Wee. L. (2001)**, Son, it's Earth Day, let's go and cycle, *Straits Times*, 22 April 2001.
- Woman falls off bike and dies (2000)** *Stratis Times* 2 September 2000.
- Wu P.T. (2001)** Give way to those with right of the way, *Straits Times* 19 March 2001.
- Yeung N. (2002)** Don't take safety measures to extremes *Straits Times* 17 July, 2002
- 3,000 pledges to leave the car at home (2002)** *Straits Times* 22 April 2002.

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