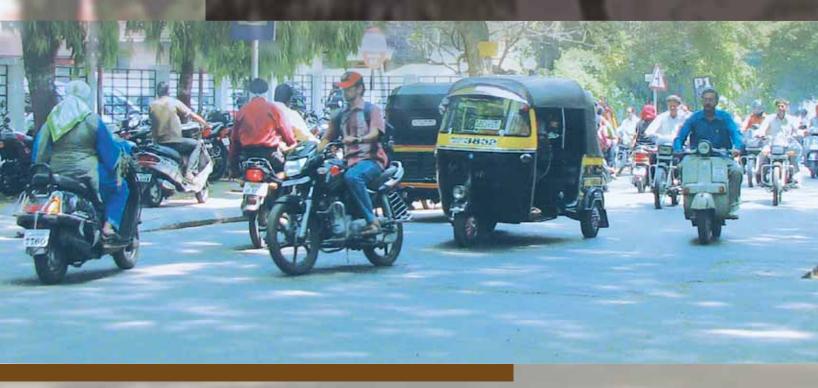
Critical Analysis of the Jangli Maharaj Road and Fergusson College Road
One Way Scheme

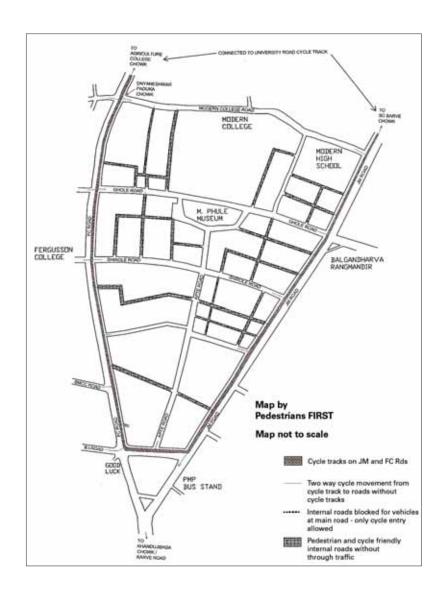


March 2010



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# Critical Analysis of the Jangli Maharaj Road and Fergusson College Road One Way Scheme

#### Introduction

Jangli Maharaj (JM) Road and Fergusson College (FC) Road are important arterial roads in Pune. These roads run north-south and connect the Shivajinagar and Ganeshkhind areas to the Deccan Gymkhana and old city areas. There are many schools, colleges, offices, restaurants and commercial establishments around this area making these two roads among the busiest in the city. Approximately 1.25 lakh vehicles are believed to use these roads daily<sup>1</sup>.

In February 2009, a one way plan was proposed on these roads and was implemented after a few months. This report critically analyzes both the decision making process behind this scheme and the impacts of the scheme on citizens of Pune. In particular, we study the impacts of the plan on the following groups of citizens:

- Pedestrians
- Cyclists
- Bus users and bus operators
- · Motorist behaviour and safety issues
- · Residents of the area under consideration
- Commercial establishments in the area under consideration

# Conditions before one way scheme

The capacity of JM Rd before the one way scheme was about 3,600 vehicles with an average speed of 15kmph². Inadequate development of public and non-motorized transport infrastructure in the city has resulted in rapid increase in the number of private vehicles and overall traffic load. This, in turn, resulted in traffic jams on the JM road & FC road which were blamed on the slow traffic movement and this was used as the rationale to suggest the one way scheme to improve traffic speeds.

# The one way scheme

#### Initial idea and meetings

The plan to allow only one way traffic on JM Rd and FC Rd was proposed by Deputy Commissioner of Police (Traffic) Mr. Manoj Patil in February 2009. The justification given for the one way proposal was that increasing average speed of motor vehicles would reduce congestion and traffic jams on these roads.

After the initial plan was proposed, it was analysed by civic groups associated with the Pune Municipal Corporation's Non-Motorized Transport (NMT) Cell over emails and informal meetings. They unanimously felt that converting a road into one way is not the best way to plan and control traffic according to accepted principles of sustainable transport. These groups voiced their concern and expressed their criticism of the plan that the one way scheme will create problems for pedestrians, cyclists and bus users, and only aid motorists. Even if only private motor vehicles were the focus of the scheme, they pointed out that it would certainly choke the entry and exit points of the one way roads apart from creating several problems to non-motorized transport users (pedestrians and cyclists) along both these roads.

<sup>1</sup> Express News Service. (2009, September 8). Traffic cops bat for one-way traffic on JM & FC Roads. *Indian Express* 

<sup>2</sup> Express News Service. (2009, August 20). One-way traffic on NGOs JM & FC roads from tomorrow. Indian Express.

Moreover, they pointed out that if the plan was indeed aimed at reducing the problems for all modes of users, i.e. motorized transport, non-motorized transport and public transport, then the objective must not be to increase vehicle speeds but to increase persons throughput, by creating more space for public transport buses, introducing cycle tracks, and improving safety measures for pedestrians etc.

These issues were discussed in many meetings between civic authorities, police officials and civil society representatives<sup>3</sup>. It was agreed upon in these meetings that the one way scheme was intended to benefit all road users (not just motorists) and that special measures would be undertaken to protect the interests of pedestrians, cyclists and bus users. The specific measures agreed upon were:

- erecting raised pedestrian crossings
- building pedestrian refuges, broad footpaths and pedestrian signage.
- bus lanes on both JM and FC roads,
- · cycle tracks for convenience and safety of cyclists,
- a free or extremely inexpensive rotary shuttle bus on these roads

Moreover, it was also expressly agreed that these measures would be in place before the one way scheme was to be started. Architect Shri Prasanna Desai and his team provided pro bono designs of several alternative plans, keeping in mind the overall objectives of the one way scheme. These plans were then discussed with NGOs, police and civic officials.

#### Design of the one way plan

On 4th May 2009, Pune Municipal Corporation (PMC) appointed Prasanna Desai Architects to design the complete one way plan. Calling it a Neighbourhood Upgradation Plan (as its impact would be felt not just on the roads but also on the neighbourhood), the team worked for three months using suggestions from the NMT cell and Shri Patil.

This plan consisted of not only directions of the traffic flow but also recommendations for widths of footpaths, cycle tracks and bus lanes. The final prints of the plan were submitted to PMC on 30th July 2009. According to the plan, the traffic movement was to be as follows:

- On JM Road, traffic moves from Barve Chowk to Garware subway.
- On FC Road, traffic moves from Garware subway to the Agriculture College.
- On Ghole Rd, traffic moves from Balgandharva Chowk to Tukaram Paduka Chowk.
- On the Modern College Rd, traffic moves from Dnyaneshwar Paduka Chowk to Modern High School
- Apte Rd and Shirole Rd to remain 2-way.

# Implementation

The onus for implementing the facilities as described above was with the PMC. Yet, PMC showed no interest in this regard and it neither provided any meaningful inputs to the plan nor did it display any urgency in executing it. There were no further meetings between the PMC authorities, designers and civic groups nor did PMC implement any of the NMT facilities mentioned in the plan. In fact, even before the design was formally approved by the Standing Committee, the PMC demolished the existing dividers on JM Rd and FC Rd in May 2009<sup>4</sup> before providing any facilities for pedestrians and cyclists, resulting not only in errant traffic behaviour, but also inconvenience to pedestrians.

<sup>3</sup> Eg., Minutes of meeting held on 24th Feb 2009 between PMC officials, police and NGOs

<sup>4</sup> Express News Service. (2009, July 22). Traffic issues: PMC convenes spl meeting. Indian Express.

With no pedestrian or cycling friendly infrastructure forthcoming from PMC and with the traffic police being in a hurry to implement the one way scheme, a trial run began on 21st August 2009 without any NMT provisions or bus lanes in place.

On JM Rd, the one way was implemented right from Sancheti Hospital and not from Barve chowk as the plan had recommended. Additionally some measures were taken to regulate traffic flow in the inner lanes by banning some turns. For example, the turn from Tukaram Paduka chowk onto Ghole Rd was banned, but two-way traffic was allowed on Ghole Rd.

The trial run, which was to be conducted originally for 15 days upto 4th September, was later extended to over a month. Interestingly, not only did the "trial" take place on an implementation which disregarded the design plan, it is also not clear that the police or PMC had any objective measures by which to judge the trial. In particular, there seems to have been no official study of the effects of the one way scheme on pedestrians, cyclists, residents or local businesses. So, it appears that the only objective of the trial was to check for any serious glitches in the ability of the police personnel to enforce the one way rather than convenience to different kinds of road users.

Moreover, though the traffic police sent four letters to PMC between 8th September and 10th October 2009, requesting them to put in place pedestrian-safety measures like larger footpaths, pedestrian crossings every 250m, railings for all footpaths and separate bus lanes, none of these were taken up by PMC with any urgency<sup>5</sup>.

Concerned NGOs had all along insisted that lane markings should be done before opening up the roads for the one way traffic flow in order to better manage the fast traffic once the one way was started. Moreover, since this could have been done at very little expense by marking the lanes in paint, there were no budgetary constraints on doing it either. However PMC did not even carry out painting of cycle and bus lanes citing difficulties of applying paint during monsoon, nor have they done so until March 2010, a good 5 months since the end of the monsoons.



It is instructive to contrast this so called 'trial run' with the trial of pedestrianizing Times Square in New York<sup>6</sup>, where they had set out desired objectives before the trial run began and the parameters by which the objectives would be measured. During the trial period these parameters were monitored and decision was taken based on the observations. It is unfortunate that PMC or the police did not believe it was necessary to undertake such a methodical exercise before approving such a scheme and declared the pilot a success without any objective basis for deciding so.

<sup>5</sup> Chandawarkar, Rahul (2010, February 1). On FC Road, pedestrians risk life and limb. DNA

New York traffic experiment gets permanent run, New York Times, February 11, 2010 available at http://www.nytimes.com/2010/02/12/nyregion/12broadway.html



However, in spite of such an ad-hoc trial and concerns raised by civic groups and citizens at large, the PMC and Traffic Police went ahead and made the one way scheme 'permanent' on 2nd February 2010.

### **Analysis of current situation**

We now discuss the current situation on these two roads as it pertains to different stakeholders, namely, pedestrians, cyclists, public transport users, motorists, local residents, and local commercial establishments. The analysis presented in this section is based on our observations, and backed up by opinions gathered from interviews conducted with different road users and stakeholders. The interviews were designed by Parisar and conducted on 16th and 17th February 2010 by students from Bharati Vidyapeeth Institute of Environment Education and Research and by the Parisar team on 26th February 2010. Details of the survey, such as the number of respondents etc., are given in the following sections.



#### **Pedestrian crossings**

On FC Rd, there are two pedestrian crossings – one opposite Hotel Roopali and one outside Hotel Vaishali. While the Roopali crossing is sufficiently raised and has steel bollards (safety barriers) in place on either side of the two footpaths, the one opposite Vaishali is in a broken condition, as a central median was demolished. On JM Rd, there are pedestrian crossings at the College of ngineering Boys Hostel Gate, the Jangli Maharaj Temple and the Sambhaji Park main gate only. However, it is found that these crossings are of little use to pedestrians because of the continuous traffic flow and higher speeds of vehicles now that the road is turned into a one way. The removal of dividers in the middle of the road to facilitate the one way scheme endangers pedestrians further since it removes the pedestrian refuges that earlier existed on the road.

#### Rumble strips

7 rumble strips have been provided - 4 on JM Rd and 3 on FC Rd near crossings and pedestrian signals. These help to reduce the speeds of vehicles and thus help pedestrians, but also contribute to erratic driving as motorists often speed between rumble strips and then slow down abruptly.





#### **Pedestrian signals**

On JM Rd, pedestrian signals of 15-20 sec duration were installed at Natraj Chowk, Sambhaji Park and Tukaram Paduka Chowk. The duration is 60-80 sec for vehicles. On FC Rd, the only traffic signals on the entire stretch are at Goodluck Chowk and Dnyaneshwar Paduka Chowk. The brief duration of these signals results in motorists blatantly violating the red light making it extremely difficult for pedestrians to cross the roads.

# Pedestrian provisions expected to be implemented

Mr. Vinay Deshpande of the JNNURM team has said that they planned to construct three additional pedestrian crossings on FC Rd at Tukaram Paduka Chowk, outside the Lalit Mahal restaurant and outside the Shivajinagar police station adjacent to the Pune police grounds<sup>7</sup>.





Mr. Vivek Kharvadkar, additional city engineer (roads), has said that JM Rd will have two expansive footpaths of 6.5 metre each on the two extreme sides (presently, the footpath varies between 2.5-3.5 metre), and at least four more pedestrian crossings are expected on JM Rd from Modern Café chowk to Natraj chowk<sup>8</sup>.

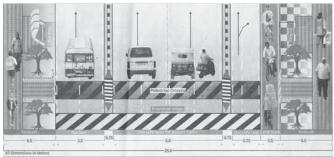


Image courtesy: DNA

<sup>7</sup> Chandawarkar, Rahul (2010, February 1). Safety on FC Rd: Wait for 90 days, says PMC. DNA

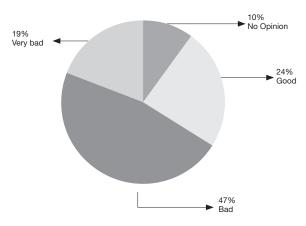
<sup>8</sup> Chandawarkar, Rahul (2010, February 5). By May, a pedestrian-friendly JM Rd. DNA

Thus, pedestrians can perhaps hope for some safe infrastructure about a year or more after the proposal was mooted and the first discussions held, though given the past record of PMC, one remains skeptical of that too.

#### Survey of pedestrians

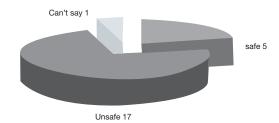


Parisar volunteers spoke to 21 randomly chosen pedestrians regarding their safety, infrastructure etc. In addition, some of the local residents and shop-keepers (who are also pedestrians) also offered their opinions on these issues. Their opinions are summarized below.



#### Opinion of one-way: Pedestrian

As can be seen, 63% of the pedestrians overwhelmingly felt that the one way scheme was bad or very bad, while only 24% felt it was good. This was also corroborated by 14 pedestrians stating that the situation before the one way scheme was at least as good as the current situation, if not better. Only 3 pedestrians felt that the one way scheme has improved things for pedestrians. As shown in the chart below, pedestrians overwhelming felt that the one way scheme had worsened safety, with 17 out of 21 respondents saying the one way scheme was unsafe.



Pedestrian opinion on safety

20 out of the 26 citizens (this includes some of the local residents and shopkeepers) also felt that crossing of roads was difficult, thus emphasizing the lack of safety on these roads.



# 2 Cyclists

Complete cycle tracks were promised by the authorities and designed by Prasanna Desai architects. However, these were not included in the trial run, and are not in existence even as of early March 2010. The only existing cycle tracks are in small patches such as from Deendayal Hospital to Dnyaneshwar Paduka chowk on FC Rd which are in dismal condition and therefore unused. Cyclists have to therefore travel in high speed mixed traffic which is hazardous.

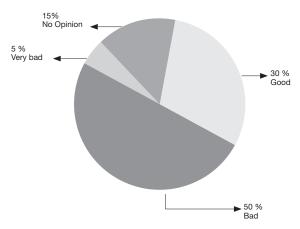
# **Expected provisions**

Mr. Kharvadkar said that there would be a 2.5m wide cycle lane on JM Rd on the extreme right side by May 2010.9

# Survey of cyclists



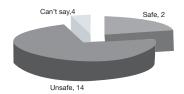
While not as vehement as pedestrians, most of the 20 cyclists randomly interviewed by Parisar also felt that the one way scheme in its current form was not desirable, with 50% of them saying it was bad and 5% saying it was very bad. In contrast, only 30% (6 out of 20) felt it was good.



### Opinion of one-way: Cyclists

<sup>9</sup> Chandawarkar, Rahul (2010, February 5). By May, a pedestrian-friendly JM Rd. DNA

However, cyclists also felt equally unsafe on these roads, as shown by the following chart, with only 2 (of the 20) cyclists feeling safe on JM/FC roads while 14 felt unsafe.



#### Cyclist opinion on safety

Moreover, 16 cyclists felt their total commute time had also increased as a result of the one way scheme while none felt it saved them time and 3 felt it took the same amount of time (one had no opinion). Similarly, an overwhelming 18 of the 20 cyclists felt that a cycle track would be useful on these roads while only 2 did not see the need for it.



#### 3 Bus users

Bus commuters and the public bus transport agency (PMPML) are inconvenienced by the one way scheme in many different ways as described below.

#### Inconvenience to bus users

The one way plan affects bus users because it increases the distance to bus stops. Previously there were buses in the same direction on both the roads. Now, a person on JM road has to walk to FC road to catch a bus going towards Pune University or Pune Station. This makes buses less attractive to commuters.

During the meeting held on 24th February 2009 with stakeholders, PMC had suggested that a free shuttle bus service should be provided on the JM FC ring route, to ease the problems faced by bus commuters. However, to the best of our knowledge, PMC has not even written a letter to PMPML to take this issue forward until March 2010 – more than a year since the meeting.

#### **Losses to PMPML**

411 buses make 3600 trips daily on the one way roads. PMPML has reported an increase of about half a kilometer per trip. The overall increase of 1800 km per day results in an increase in diesel consumption of 600 liters and therefore an increase in expenditure on diesel by Rs. 22,000 per day<sup>10</sup>.

Moreover, 11 bus stops on the opposite side of one way traffic (7 on JM Rd and 4 on FC Rd) have now become redundant, thus not only obstructing pedestrian movement but also resulting in loss of revenue to PMPML from advertising to the tune of Rs. 85,000 per month (if these bus stops are removed)<sup>11</sup>.

In addition, though we do not have concrete numbers to back it up, it is also likely that bus ridership on these corridors has dropped due to the problems faced by bus commuters (and pedestrians), thus further affecting PMPML's finances.

<sup>10</sup> Letter PMPML/TM/4265 from PMPML Traffic Manager to Kaksha Adhikari, Nagar Vikas Dept, Mantralaya sent on 14th Jan 2010.

<sup>11</sup> DNA Correspondent. (2009, September 1). Residents want revaluation of one-way traffic plan. DNA.





# Non-implementation of decisions

PMC has, to date (March 2010), not provided the exclusive bus lanes on these roads that were promised in the meeting of February 2009. While the exclusive lanes may not have addressed the problems listed above, they would at least have helped speedier movement of buses, thus providing some benefit to bus users for the other troubles suffered by them.

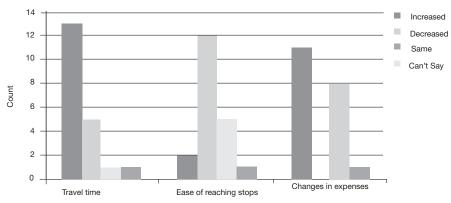
Moreover, as stated above, PMC has also not pursued the idea of the shuttle bus service suggested by PMC officials themselves during the meeting of 24th February 2009.

#### **Expected provisions**

Additional City Engineer, Roads, Mr. Kharvadkar has said that PMC is building a dedicated bus lane of 3.5m on JM Rd with a segregator adjacent to the extreme left footpath. This is expected to be ready by May 2010. PMC has also announced that all PMPML bus stops will henceforth be accommodated between the tree trunks on JM Rd resulting in shifting of existing bus stands. It is not at all clear whether this move will benefit bus users and bus drivers, or is yet another ad-hoc decision to accommodate the bus stops 'somewhere'.

#### Survey of bus users

Parisar interviewed 20 bus users randomly chosen from among those disembarking from buses or waiting for buses on these roads to gauge their opinion. Of the 20, 8 users (40%) felt that the one way scheme was bad, while only 5 (25%) felt it was good and 7 (35%) had no opinion.



Bus users convenience

A more revealing picture emerges from their responses to questions such as the impact of the one way scheme on their travel time, ease of accessing bus stops and impact on expenses. As the above chart shows, the one way scheme has not helped them in any of these aspects. For the majority, travel time has increased, bus stops have become harder to access and expenditure has gone up.



#### 4 Motorists

#### Speeds and safety

When the scheme began, DCP Mr. Patil had said "efforts have been made to increase average speed from 15 (present) to 20kmph"<sup>13</sup>. From that point of view alone, the scheme seems to have succeeded as average speed seems to have gone up to 28kmph<sup>14</sup>. However, it is doubtful whether such an increase in speed is actually beneficial, due to attendant safety risks not only to pedestrians and cyclists but also to motorists – ironically the group of citizens most likely to benefit from the one way scheme.

According to a survey conducted by students of Dept of Social Work of Tilak Maharashtra University (290 drivers interviewed), 53% motorists agreed that over speeding on these 2 roads resulted in more accidents. While it is hard to conclusively say that it was caused due to the increased speeds on these roads, it is true that 6yr old Yash Waghmare was killed on 5th Sept while riding pillion on a 2-wheeler on JM Rd. Unfortunately, the only reaction by the authorities to the accident was another ad-hoc measure of (re)converting the stretch between Balgandharva and SG Barve Chowk to 2-way traffic for 15 days, before going back to the one way scheme.

Besides fatal accidents, many minor accidents and near-miss incidents have gone unreported. While drivers are blamed and arrested in case of accidents, the root cause of the problem – the ability to speed on wide unchanneled roads – remains unaddressed.

As a reaction to the increased speeds, the traffic police imposed a speed limit of 30 km per hour for heavy vehicles and 35 km per hour for other vehicles on the one way roads<sup>16</sup>. However, these instructions are largely ignored forcing the police to introduce speed guns<sup>17</sup>. While it is doubtful whether even the speed guns are effective in reducing maximum speeds, it is ironic that the focus of the police now appears to have shifted to reduce speeding after they initiated the one way scheme to ostensibly increase speeds.

Another aspect to be noted in this context is the need for vehicles to weave through more lanes of traffic due to the one way scheme. For example, motorists coming from the District Court who want to go to Simla Office have to weave across 4 lanes of often fast traffic in a short distance, raising serious questions of safety.



<sup>12</sup> Chandawarkar, Rahul (2010, February 5). By May, a pedestrian-friendly JM Rd. DNA

<sup>13</sup> Times News Network. (2009, February 22). The solution to congestion: Traffic chief. *Times of India*.

<sup>14</sup> Times News Network. (2009, August 22). Speed limits to be imposed. Times of India.

<sup>15</sup> Times News Network. (2009, September 11).'One-ways raise risk of mishaps'. Times of India.

<sup>16</sup> Inamdar, N. (2009, September 7). Cops deployed on JM, FC roads to check speed of vehicles. *DNA*.

<sup>17</sup> Times News Network. (2009, September 7). Police Use Speed Guns To Identify Speeding Motorists on JM, FC Roads. *Times of India*.

#### Travel time and distance

It is interesting to note that although the one way scheme aids speed in one direction, overall door-to-door distance and time do not seem to have necessarily reduced (see survey results below). The reason for this is perhaps the increased distances that vehicles now have to travel, and the choke points at the entry and exit of the one way schemes.

#### **Parking**

After the one way scheme, paid parking had been imposed on both sides of the road. Additionally, new parking places have been formed at unused parts of the road (e.g. Natraj Chowk as shown in photograph below).





Since the charges for parking are quite low, this amounts to giving away precious land at cheap rates to automobiles.

Moreover, since these cheap street parking spaces coexist with the multi-storey pay-and-park near Sambhaji Park, this leads the latter to be mostly empty. At the same time, improper policing and checks has resulted in double parking as shown in the photograph above.

To make matters worse, vehicles are now parked free of charge on both sides of the road, as the earlier contract for Pay-and-Park has not been renewed due to the one way scheme. This also raises the concern that it will become politically difficult to impose parking charges later, as already evident in some rumblings against two-wheelers being charged for parking<sup>18</sup>.



It is now common to see vehicles parked all over, even on zebra crossings.

# **Expected provisions**

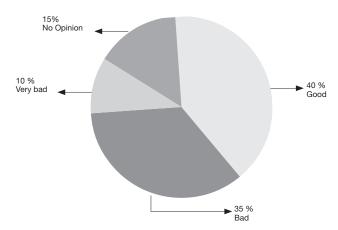
PMC has announced that for JM Rd they will have minimum parking place allotted around the large tree trunks on the right side of the road to encourage people to use the PMC multi-storied car park on JM Rd and the PMC car and scooter parking next to McDonalds<sup>19</sup>. However, evidence thus far suggests that parking is likely to be bountifully available along both sides of both roads.

<sup>18</sup> Express News Service. (2010, February 21). Pay 'n' park scheme unjust, says BJP. Indian Express.

<sup>19</sup> Chandawarkar, Rahul (2010, February 5). By May, a pedestrian-friendly JM Rd. DNA

# Survey of motorists

Parisar also interviewed 20 motorists (both car and two-wheeler users) chosen at random on these roads. It is interesting to see that even among this class of road users, expected to benefit most from the one way scheme, opinion was more or less evenly divided about whether the one way scheme had made things better or worse.



#### Opinion of one-way: Motorist

9 motorists thought that the scheme was bad or very bad while 8 thought it was good. When asked to reflect on the current situation with respect to the pre one way situation, opinion was more or less evenly divided with 7 feeling that the earlier situation was as good or better, 6 feeling that the current situation is better and 7 unable to decide. Similarly, on the issue of safety, as many motorists felt the current situation was unsafe as the number that felt it was safe (6 motorists each). 4 felt there was no change while 4 had no opinion on the matter. Opinion was evenly divided on the matter of travel time too, with 7 motorists feeling that overall travel time had increased while 7 felt it had decreased. It was only on the issue of parking that motorists felt things had improved (i.e. they could find parking more easily), with 7 feeling that things were good or better, while only 2 felt it was worse.

Thus, it is interesting to see that motor vehicle users also do not overwhelmingly support the one way scheme. The possible reasons for this, as stated earlier, are that overall travel time has not reduced by much (if at all) and motorists also feel not-so-safe on these roads.



# 5 Local residents

One side-effect of the decision to convert JM and FC roads into one way streets is the increased traffic in the inner lanes between the two roads as motorists seek the shortest way to their destination (see for example the graphic below).

Thus, though the Municipal Commissioner Mr. Mahesh Zagade claimed that the "one way traffic plan is a good move because it reduces sound and air pollution"<sup>20</sup> and Mr. Patil claimed that due to the one way scheme, "people will start using arterial roads"<sup>21</sup>, in reality it appears to have brought sound and air pollution closer to the residents in the locality.

<sup>20</sup> Times News Network. (2009, August 22). Speed limits to be imposed. Times of India.

<sup>21</sup> Times News Network. (2009, February 22). The solution to congestion: Traffic chief. *Times of India*.

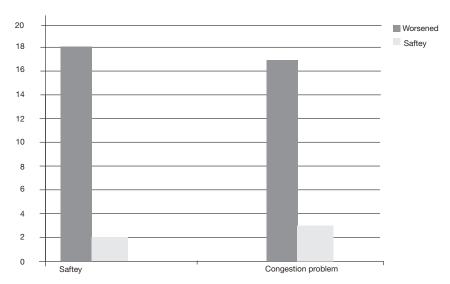


Traffic congestion has increased on inner lanes and on narrow roads connected to Jangli Maharai/Fergusson College Rds

Residents in the inner lanes complain of a sudden congestion in their localities, especially near Canal Road, Model colony area, Apte Rd, and Ghole Rd. Moreover, increased vehicular traffic in the lanes also makes them unsafe, particularly for children and senior citizens, and decreases the overall quality of life of residents. Given the paucity of public open spaces in the city, streets in residential localities in countries like India often double up as public spaces. Such an increase in traffic in these lanes takes away this valuable social resource and deprives children of playing areas and senior citizens of quiet neighbourhoods. What is more, many of these streets and lanes are not designed to take such traffic loads, thus creating traffic jams in them often.

#### **Survey of residents**

Local residents in the area are perhaps the 'most important' stakeholders in a decision such as this one way scheme. As can be seen from the responses of 20 randomly chosen residents in the locality, they believe that the one way scheme has made their lives worse, with all 20 residents saying that the current situation is bad or very bad. 16 of the residents interviewed also felt that the previous situation was good or better compared to the current situation while only 4 felt it was worse than earlier.



# Resident's opinion

Moreover, an overwhelming 18 of the 20 residents (90%) felt that the one way scheme has worsened safety issues while only 2 felt it was the same as before. Similarly, 17 of the 20 residents felt that the congestion problem in the inner lanes has increased while 3 felt it was the same as before. None of residents interviewed felt either safety or congestion in interior lanes had improved. More interestingly, none of the residents interviewed fell into the 'no opinion' category, perhaps indicative of the strong feelings of residents on this matter.

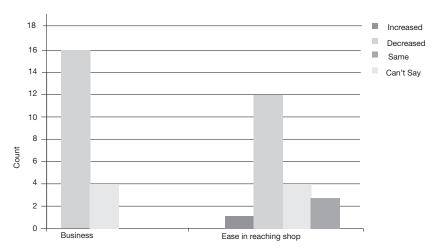


#### 6 Commercial establishments

Change of traffic patterns invariably has an effect on local commercial establishments as it impacts the footfalls in their establishments. In this case, increased travel time and difficulty in access appears to have had a negative effect on the business of shops, eateries and other commercial establishments in the area, as Mr. Nana Nashikkar of a local Traders' Association has said that the business of eateries and other shops on JM Rd has been affected by 30%<sup>22</sup>.

### Survey of commercial establishments

Parisar also spoke to about 20 commercial establishments in the area chosen at random. These included small shops, road-side stalls and larger establishments. As many as 15 establishments felt the one way scheme was bad (10) or very bad (5), while only 5 felt it was good.



Commerical esatblishments' opnion

This conclusion is consistent with their opinion on the ease of customers reaching their shop and the volume of their business. 12 establishments felt customers found it harder to reach their shop, while only 1 felt it was easier to reach after the one way scheme. Similarly, 16 establishments said they had seen a drop in business volume while none felt business had improved after the one way scheme.

<sup>2</sup> DNA Correspondent. (2009, September 1). Residents want revaluation of one-way traffic plan. DNA.

# **Conclusions**

#### **Inconsistency with National Urban Transport Policy**

The one way scheme on JM and FC Rd was proposed with the expectation of raising the present capacity from 3,600 vehicles to 6,600<sup>23</sup>. This clearly suggests that a primary objective of the scheme was to increase the throughput of personal motor vehicles (not people). This idea is therefore inconsistent with the National Urban Transport Policy (NUTP) by the Union Ministry of Urban Development which states its objective of "bringing about a more equitable allocation of road space with people, rather than vehicles, as its main focus".

# Institutional oversight

The role of the traffic planning department of PMC also needs to be highlighted. This is the department responsible for all traffic planning in the city. Therefore, though the traffic police may have suggested the one way scheme as a good way of managing traffic, it was the responsibility of the traffic planning department to decide firstly whether the one way scheme was necessary and if so, what other facilities had to be provided with it. The responsibility of the PMC roads department extends only to executing the plans suggested by the traffic planning department. However, in this particular case, the traffic planning department seems to have taken a back-seat in the whole process with the traffic police and the roads department jointly making the decisions. Unfortunately, even the Municipal Commissioner did not see fit to step in and address this situation.

#### Lack of co-ordination

The manner in which the one way scheme was planned and implemented reflects the lack of coordination in the administration system. Mr. Patil, as the chief of traffic police, was keen on the scheme as it would make his department's job of managing traffic simpler. However, PMC which is responsible for execution of all schemes, including providing pedestrian and public transport facilities, was not all that keen to implement the identified suggestions. In spite of civil society organizations trying repeatedly to bring all parties to an agreement, it is evident that this did not result in any concrete coordinated action.

#### Inadequate understanding

There also appears to be inadequate understanding of the difference between throughput and speed, since the scheme aimed to increase throughput by increasing speeds of vehicles by increasing carriage-width and decreasing signal cycle times. However, it is now well understood that merely increasing vehicle speeds on one corridor will not increase throughput for two reasons: a) increased speeds lead to greater buffer space between vehicles for safety reasons, thus reducing throughput beyond certain speeds and b) typical journeys begin and end outside the corridor and therefore the advantage gained on the corridor is often quickly lost in the inevitable choke at the exit of the corridor.

Mr. Patil also justified the one way plan saying there is "no other solution available to decongest traffic"<sup>24</sup>. This seems to suggest that other established alternatives such as promoting more efficient means of transport (such as public transport) and demand management measures such as Traffic Demand Management (TDM), which take a holistic view of transport needs were not evaluated properly. This also leads to greater concern regarding Mr. Patil's statement that the current "plan is a long term solution"<sup>25</sup>.

### Findings of the survey

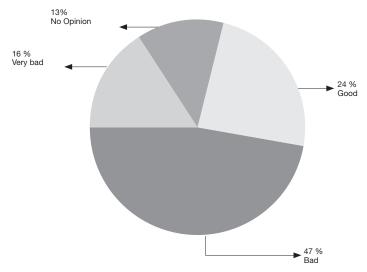
While Parisar does not claim that its survey was conducted scientifically with properly identified samples etc, we do believe that the findings of our survey are reasonably representative of public opinion about the one way scheme. In particular, it is interesting to note that even motorists are ambivalent about the

<sup>23</sup> Express News Service. (2009, August 20). One-way traffic on JM & FC roads from tomorrow. *Indian Express*.

<sup>24</sup> Times News Network. (2009, February 22). The solution to congestion: Traffic chief. Times of India.

<sup>25</sup> Times News Network. (2009, September 8). One-way plan a long-term solution: DCP. Times of India.

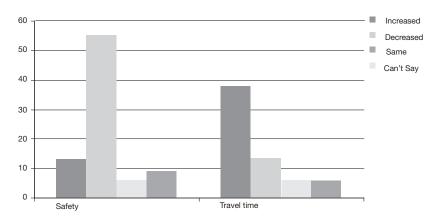
scheme while all other classes of users (residents, commercial establishments, pedestrians, cyclists and bus users) think the scheme is bad and has worsened things for them. This is reflected in the following charts.



Opinion of one-way: All users

As can be seen from the above chart, 63% of all those who were interviewed (126 respondents, including a small sample of 4 auto-rickshaw drivers who were interviewed) felt that the one way scheme is bad or very bad, while only 24% felt that it was good. This clearly demonstrates that the general opinion of the public is not in favour of the scheme.

If one focuses on two specific aspects of the scheme, namely the perception of safety and whether it has actually helped to improve travel time, one again finds answers in the negative. The following chart shows that 55 out of 83 respondents felt that safety had become worse while only 13 felt it was better after the one way scheme. Similarly, 38 out of 65 respondents felt that travel time had increased after the one way scheme, while only 13 felt it had decreased<sup>26</sup>.



Safety and Travel time: for all users

The total number of respondents for the two questions (safety and travel time) is different because the questions are relevant to different groups of road users. The safety question was posed to pedestrians, cyclists, motorists and residents while the travel time question was posed to cyclists, motorists, bus users (and the 4 auto-rickshaws – which doesn't change the figures).

The survey thus indicates that the one way scheme has been a complete disappointment to all classes of citizens. Even the motorists whom the idea seemed to benefit are not totally satisfied with it.

#### Way forward

From the initial announcement of the one way scheme, Parisar had felt that it would at best aid users of personal motorized vehicles and disadvantage the other road users who are greater in number, more disadvantaged and impose a lesser burden on the environment and the municipal budget. Our analysis sadly confirms this hypothesis.

We hope that the concerned authorities will go through these findings and initiate corrective action by actually prioritizing pedestrians, cyclists and bus users on the street rather than just on the pages of the National Urban Transport Policy. If this happens, the benefits will not be restricted to traffic and mobility alone, but will also spill over into improved public spaces, better shopping experience and improved livability for all.

#### Acknowledgements

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Parisar gratefully acknowledges their contribution.



Photo Courtesy: Times of India



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As on 4<sup>th</sup> April 2010, it is now one year, one month and eleven days after the first meeting between all stakeholders about the one-way scheme, at which all parties had agreed to a set of provisions that would help improve the plight of pedestrians, cyclists and bus users. It is also seven months and fourteen days since the one-way scheme officially began its trial run, and two months and two days since the scheme was made 'permanent'. The following table summarizes the 'achievements' of PMC during this period on these roads.

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Pedestrian friendly proposals	Status	
Wider pedestrian boulevards on both roads	? Mostly incomplete, some work just begun	
Safe, raised pedestrian crossings	Some in place, but not very useful due to high vehicle speeds	
Pedestrian signals	? Installed but not in use	
Rumble strips for speed control	Some in place, but still blatant speeding between the strips	

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Cyclist friendly proposals	Status
Safe, segregated bicycle tracks	Not even begun on either road. Will it ever get done?

Bus user friendly proposals	Status
Segregated bus lane	Not even begun on either road. Will it ever get done?
Low cost, frequent circular shuttle bus service	X Idea not even mooted.



Motor vehicle friendly actions	Status
Removal of dividers	Done well before even one-way scheme trial began
Four lanes of unobstructed traffic in each direction	√ In place.
Increased parking supply	Now, it is customary to park on both sides of both roads – will it be possible to reverse this later?