

## “PEDESTRIAN DAY” EXPERIENCE IN THIMPHU, BHUTAN

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### ABSTRACT

Thimphu, the capital city of Bhutan faces significant traffic congestion and air pollution as traffic continues to grow rapidly. In June 2012, the Government designated every Tuesday as a vehicle free day in the core Thimphu area, known as the Pedestrian Day (PD). A considerable number of people resisted the initiative with dissatisfaction. The Government then announced in November 2012 that the PD would be observed on the first Sundays of each month. Ultimately the entire initiative had to be withdrawn in August 2013. Results of a survey conducted by the Center for Research Initiatives (CRI) after the PD initiative was just initiated were compared with the results of a new survey conducted once the PD initiative was withdrawn. While the first stage survey showed that 57.8% of respondents supported the concept and 54.0% wanted discontinuation of the PD, the study found that at the second stage, more respondents, i.e. 62.0%, supported the idea but also more respondents (63.3%) did not want the PD to be continued. Primary factors identified were; a) lack of stakeholder consultation; b) inadequate implementation planning; and c) inadequate facilitation of alternatives. The experience of Pedestrian Day in Thimphu suggests that prior stakeholder consultations and preparatory measures are necessary for the successful implementation of this type of sustainable transportation program.

**Keywords:** Pedestrian Day, Sustainable Transport, CBD Traffic, Thimphu Traffic.

### INTRODUCTION

Thimphu, the capital city of Bhutan is a small city with a population of 140,000 (2013), spread across an area of 26 square-kilometres. The city is located in a mountainous area with altitudes averaging approximately 2325 metres above the mean sea level. The population of the city is growing fast at a rate of 12% annually. However, the vehicular growth is even faster, as indicated by an increase of 75% between 2007 and 2012 in the Thimphu region. As of 31 December 2012, out of the 35,965 registered vehicles in the Thimphu region, 22,103 were private light vehicles (LVs) including cars and 3617 taxis (Road Safety and Transport Authority, 2013). The city is already facing housing shortages, traffic congestion, air pollution and chaotic pattern of developments. Private and public agencies, as well as individuals, are going for “city building” in a disjointed and adhoc manner. This results in “spotty growth,” whereby fragmented pockets of development require services and infrastructure. These dispersed pockets are not large enough to support any given city service system, and are too far apart to efficiently link with city level service systems (Department of Urban Development and Engineering Services, 2004).

The core area of Thimphu, with an area of 1.2 square-kilometres, is the heart of the city and consists of various types of land-uses, including the major business activities. There are three major streets in the core area known as a) Norzin Lam; b) Chang Lam; and c) Doebum Lam, with Norzim Lam being the most popular and the most congested.

**Picture-1: Norzin Lam- the busiest street of Thimphu**

The revised Thimphu Structure Plan of August 2004 (Department of Urban Development and Engineering Services, 2004) mentions that planning for the movement of people and vehicles in Thimphu city goes beyond fulfilling the basic issues of connectivity. Any transportation plan for Thimphu city has to take into consideration a myriad of factors. Social isolation occurs when the 'bread winner' drives off in the only family car, leaving the wife and children to find for their own transportation. Servants and labourers, as well as young professionals and office staff have differing mobility needs. The high rate of vehicle ownership in the city, i.e. 35,965 vehicles for 140,000 population (Road Safety and Transport Authority, 2013) contrasts with the culture of "Walking" which is an integral part of the Bhutanese lifestyle. The private vehicles driving down narrow city roads threaten the safety of pedestrians. Public transit routes are under-utilized and today, the citizens give more priority to own a car than a house. These trends have a significant impact on the social aspects too: the informal interactions during short walks to nearby shops or during a bus ride to work do not take place anymore, as people prefer to drive private vehicles to the vegetable market, to the restaurant, or to the work place (Department of Urban Development and Engineering Services, 2004).

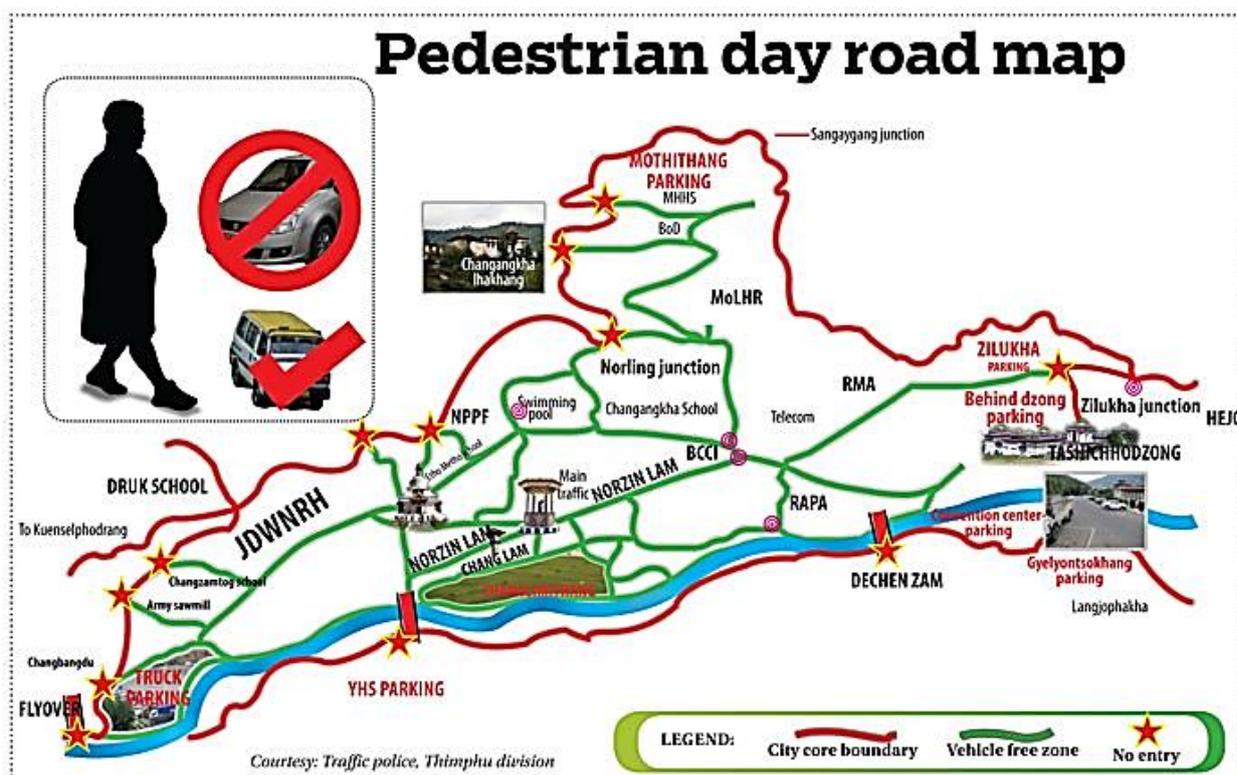
According to the revised Thimphu Structure Plan of August 2004 (Department of Urban Development and Engineering Services, 2004), Norzin Lam, one of the three main streets of the central core area, was proposed to be pedestrianized. In addition, and coinciding with World Environment Day on June 5, 2012, the Government passed an executive order declaring every Tuesday to be observed as a "Pedestrian Day (PD)". It was to be observed in all twenty (20) districts as a measure to sensitize the public on environment and to reduce the carbon foot-print. From 8 a.m. to 6 p.m., core urban areas including Thimphu and Phuentsholing were to become a pedestrian zone, and only service vehicles such as ambulances, fire brigades, armed force vehicles, buses, taxis and bicycles were allowed to ply the core city area roads. The "even" and "odd" registration number plate taxis would be allowed in alternate PDs. The plan was shaped by five implementing agencies - the National Environment Commission Secretariat, Thimphu City Corporation (Thimphu Thromde), Road Safety and Transport Authority (RSTA), Thimphu Traffic Division and the Bhutan Post.<sup>1</sup>

Contrary to the Government's expectations, the media cited immense public dissatisfaction with the manner in which the initiative was implemented. Consequently, in the SMS and online poll

<sup>1</sup> The PD was not a new idea in 2012, as a similar initiative was introduced by the agriculture ministry in August 2008, interestingly called "the HEHE (Helping Environment, Health and Economy) walk" expected to save 300 litres of fuel every Tuesday. However, the initiative lasted only for a year as the enthusiasm could not persist.

organized as part of a live debate organized by the Bhutan Broadcasting Services (BBS), an overwhelming 2,847 votes were cast against the PD while only 1,315 supported it. It may be noted that people who participated in an online or SMS poll are those who have access to the internet or a mobile phone, and most likely to have a car. On the other hand, a National Environment Commission (NEC) survey in Thimphu said that of 500 people interviewed, 316 said “yes” to the PD, 94 said “no” and 90 remained “neutral”. While the BBS poll was accused of being hijacked by the anti-PD groups, the NEC survey was criticized as being biased, given that the commission was in favor of the PD (Centre For Research Initiatives, 2012).

Picture-2: Pedestrian Day Road Map (Source: Traffic Police, Thimphu Division)



However, under pressure from the public, the Government changed its policy in November 2012. The Lhengye Zhungtshog (Cabinet of Ministers), during its 146th session held on November 13, 2012, decided that henceforth Pedestrian Day shall be observed on the first Sunday of each month beginning Sunday, December 2, 2012. In addition, June 5, which is World Environment Day, was also to be observed as Pedestrian Day every year in the country (Cabinet Secretariat, 2012). In spite of this change, however, the dissatisfaction of the city dwellers persisted and in August 2013, the first sitting of the Cabinet decided that Pedestrian Day would be discontinued with immediate effect. The Cabinet arrived at this decision after an internal discussion showed that the PD caused problems for the general public, especially in times of emergency, and affected the business community drastically (Bhutan Observer, 2013).

Considering the public interest and aiming to arrive at an independent understanding of the PD, a comprehensive set of surveys were conducted by the Center for Research Initiatives (CRI), Thimphu, Bhutan on September 15-16, 2012 (Center for Research Initiatives, 2012). The findings of the first survey (henceforth referred to as the first stage survey) revealed that Thimphu city dwellers liked the concept of the PD, but did not want it to be continued. Then immediately after the Government announced the discontinuation of Pedestrian Day, a second survey was conducted (referred to as the second stage survey). The objective of this paper is to compare the perceptions of the city dwellers of Thimphu of the Pedestrian Day initiative at the two different stages or points in time.

## I. METHODOLOGY

To facilitate a comparison between the two different stages of surveys, the same methodology that was followed in the first stage survey was adopted during the second stage survey. The primary sampling units were clusters stratified by population size according to the National Statistical Bureau (NSB) and the household selection was administered through simple random sampling basis. In the first stage, 1000 respondents were surveyed, while at the second stage, 300 respondents were surveyed. Of 72 areas of Thimphu listed by NSB, 30 were selected by Probability Proportionate to Size (PPS) method. Random route procedures were used to select sample respondents. Unless an outright refusal occurred, interviewers made up to three attempts to survey the sampled household. To increase the probability of contact and completion, attempts were made to meet at different times of the day and on different days of the week. If an initial sampled household could not be interviewed, a simple substitution method was applied.

## II. RESULTS OF THE SURVEYS

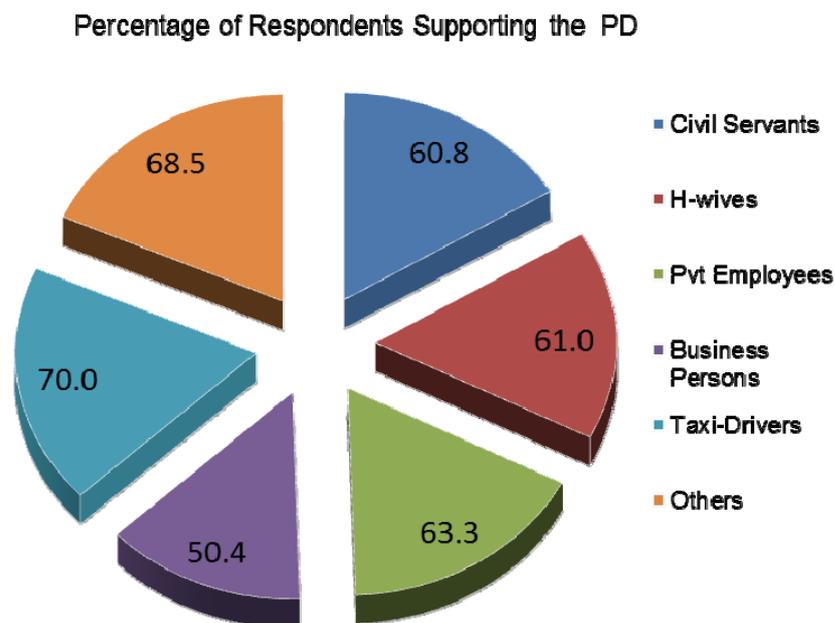
### 2.1 First Stage Survey (September 2012)

The first stage survey was conducted by the Center for Research Initiatives (CRI) when the PD day observance had just been initiated. A sample of 1,000 people over the age of 18 and living in Thimphu was chosen. Of the respondents, 49% (529) were male and 51% (550) were female, while only 15.5% were not educated. Meanwhile 35.4% (383) were civil servants, 19.9% (215) housewives, 21.2% (229) private employees, 12.8% (139) business people, and 0.9% (10) were taxi drivers. About 50.4% respondents used their private cars for daily transportation, while 22.4% used taxis, 16% city buses, and 8.9% walked.

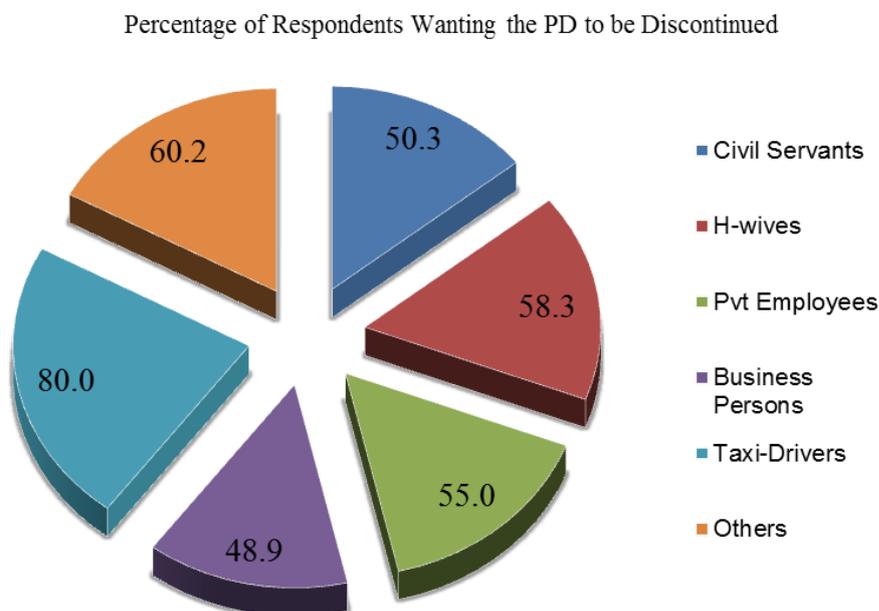
According to the findings of the first stage survey conducted by CRI in September 15-16, 2012, the PD was something good for taxi drivers, and so their support to it was the highest at 70.0%. About 63.3% of private employees and 61% of civil servants and housewives also supported the idea. The lowest support came from business people, at 50.4%.

However, the feelings of the city dwellers were mixed as more were in favor of discontinuation of the initiative than for continuing it. The majority (80%) of the taxi drivers said PD should be lifted and discontinued for the primary reason that the even/odd number plate rule applied in addition to the PD brought taxis from other districts, making the taxi business competitive and affecting their incomes. In addition, 58.3% of housewives, 55% of private employees, 50.3% civil servants and 48.9% of the business persons/ shop keepers wanted the PD to be discontinued.

**Figure 1: Percentage of Respondents Supporting the Pedestrian Day (Centre for Research Initiatives, 2012)**



**Figure 2: Percentage of Respondents Wanting the PD to be Discontinued (Centre for Research Initiatives, 2012)**



The basic findings of the first stage survey conducted by CRI are tabulated in Table 1:

**Table 1: Basic Findings of the First Stage Survey (Centre for Research Initiatives, 2012)**

	Yes	No	Not Sure	Total
Supporting PD	57.8 (578)	32.6 (352)	6.5% (70)	100% (1000)
Discontinue PD	54.0% (573)	29.9% (299)	12.1%(128)	100% (1000)

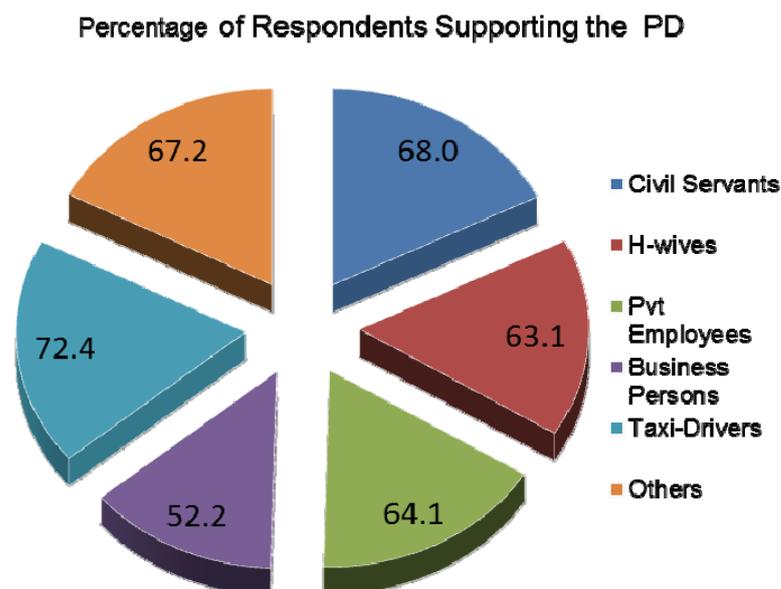
**2.2 Second Stage Survey (August 2013)**

The second stage survey was conducted in August 2013, when the PD day scheduled for the first Sunday of each month was just withdrawn. The sample selection was done following the same procedure as followed by CRI for the first stage survey. A sample of 300 people above the age of 18 and living in Thimphu was chosen. Of the respondents 49.6% (149) were male and 50.3% (151) were female, while 17.5% were not educated. About 50.8% respondents used their private cars daily, while 20.3% used taxis, 18.1% city buses, and 10.2% walked.

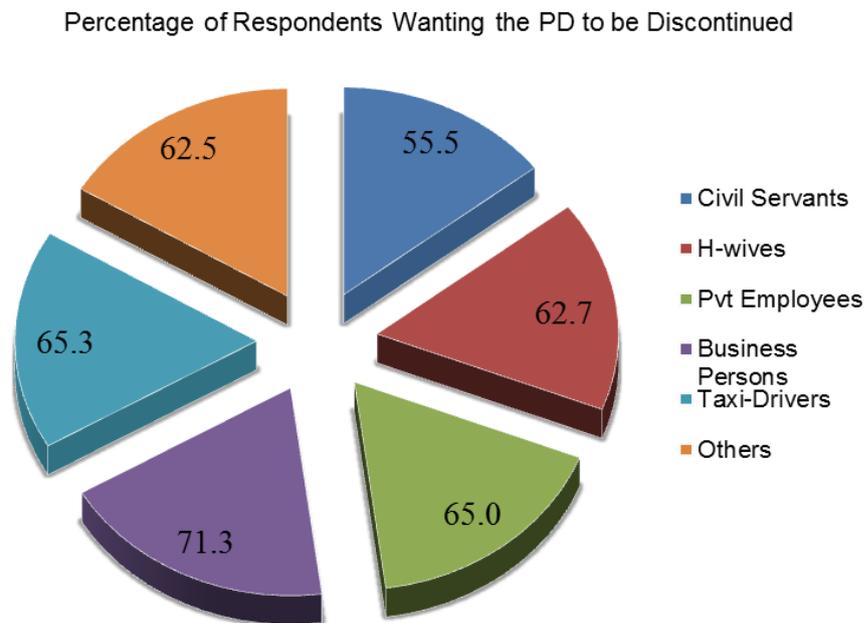
The second stage survey revealed that in a similar way to the first stage survey, the concept of the PD was considered something good for the taxi drivers and their support to it was the highest at 72.4%. About 64.13% of private employees, 68.0% of civil servants and 63.1% housewives also supported the idea. The lowest support came from the business people at 52.24% this time as well.

In the second stage survey, the support towards continuation of a PD was found to have gone down in general. The feelings of the city dwellers were again mixed, with more and more in favor of discontinuation of the initiative. At this stage, 65.3% of the taxi drivers said PD should be lifted. Also 62.7% of the housewives, 65.0% of private employees, 55.5% civil servants and 71.3% of the business persons / shop keepers wanted the PD to be discontinued. Out of the 300 persons surveyed, 190 respondents wanted the PD to be discontinued.

**Figure 3: Percentage of Respondents Supporting the PD (Second Stage)**



**Figure 4: Percentage of Respondents Wanting the PD to be Discontinued (Second Stage)**



The basic findings of the survey conducted in this study are tabulated in Table 2:

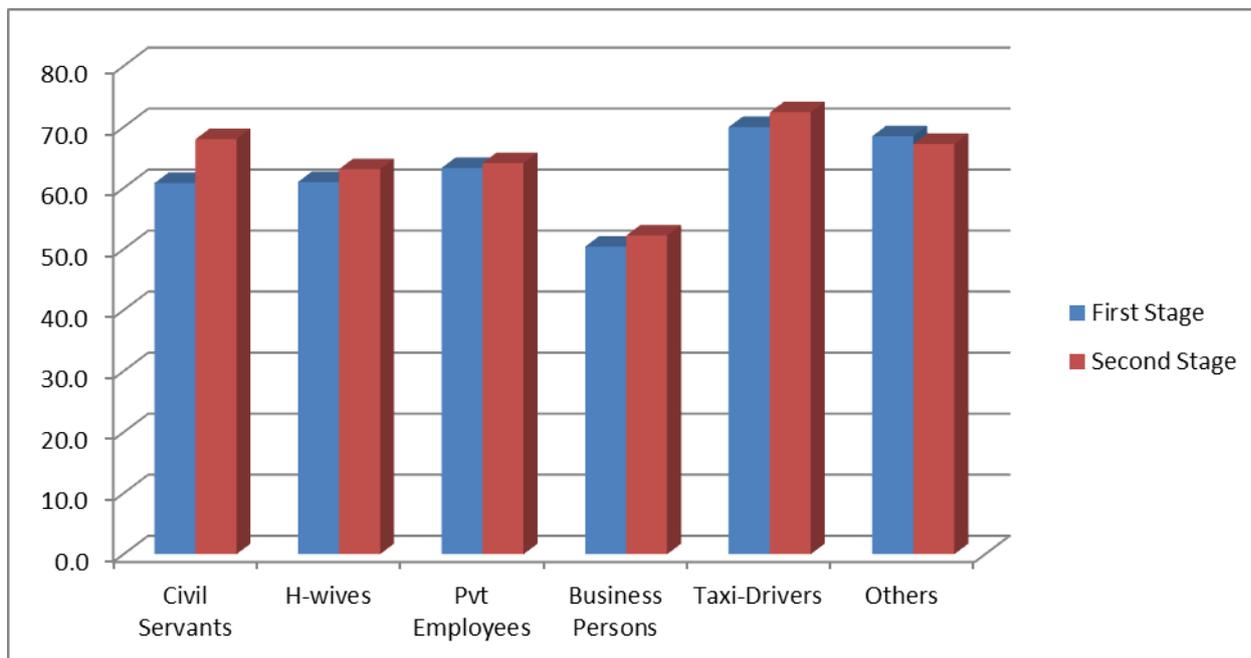
**Table 2: Basic Findings of the Second Stage Survey**

	Yes	No	Not Sure	Total
Supporting PD	62.0% (186)	28.3% (85)	9.7% (29)	100% (300)
Discontinue PD	63.3% (190)	34.3% (103)	2.3% (7)	100% (300)

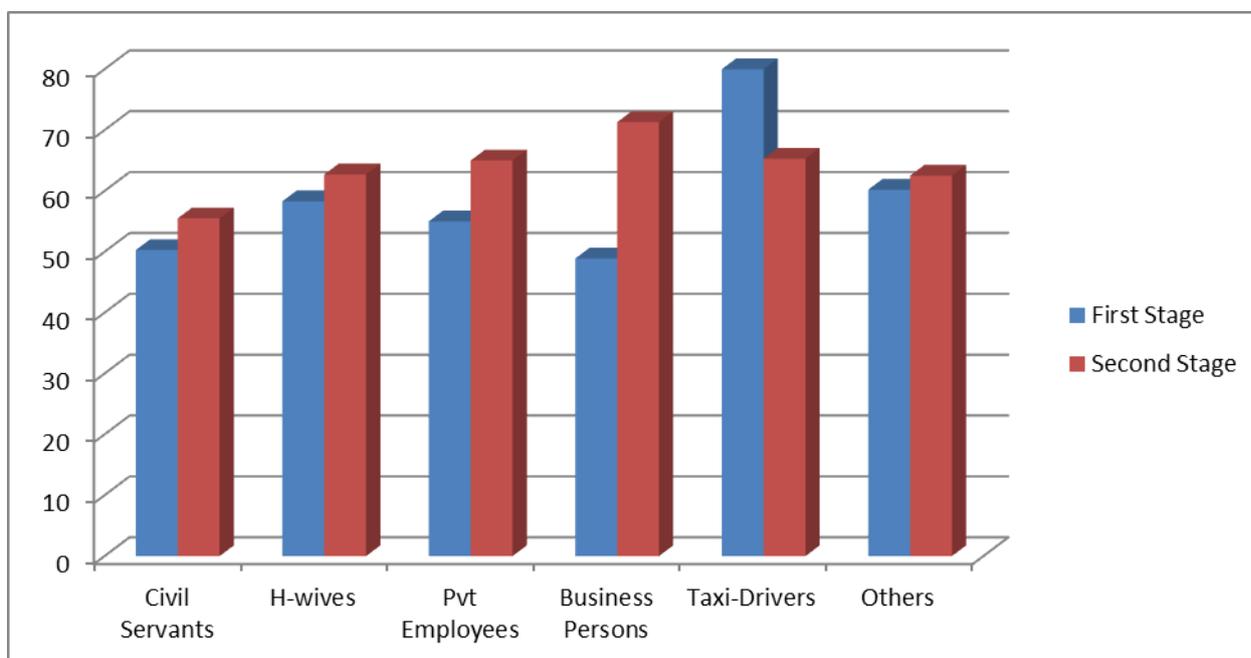
**2.3 Comparison of two surveys**

The results of the two different stages of surveys were compared, as shown in Figure 5 and Figure 6 below.

**Figure 5: Comparison Between Percentage of Respondents Supporting the PD (by Profession) at two Different Stages of Implementation**



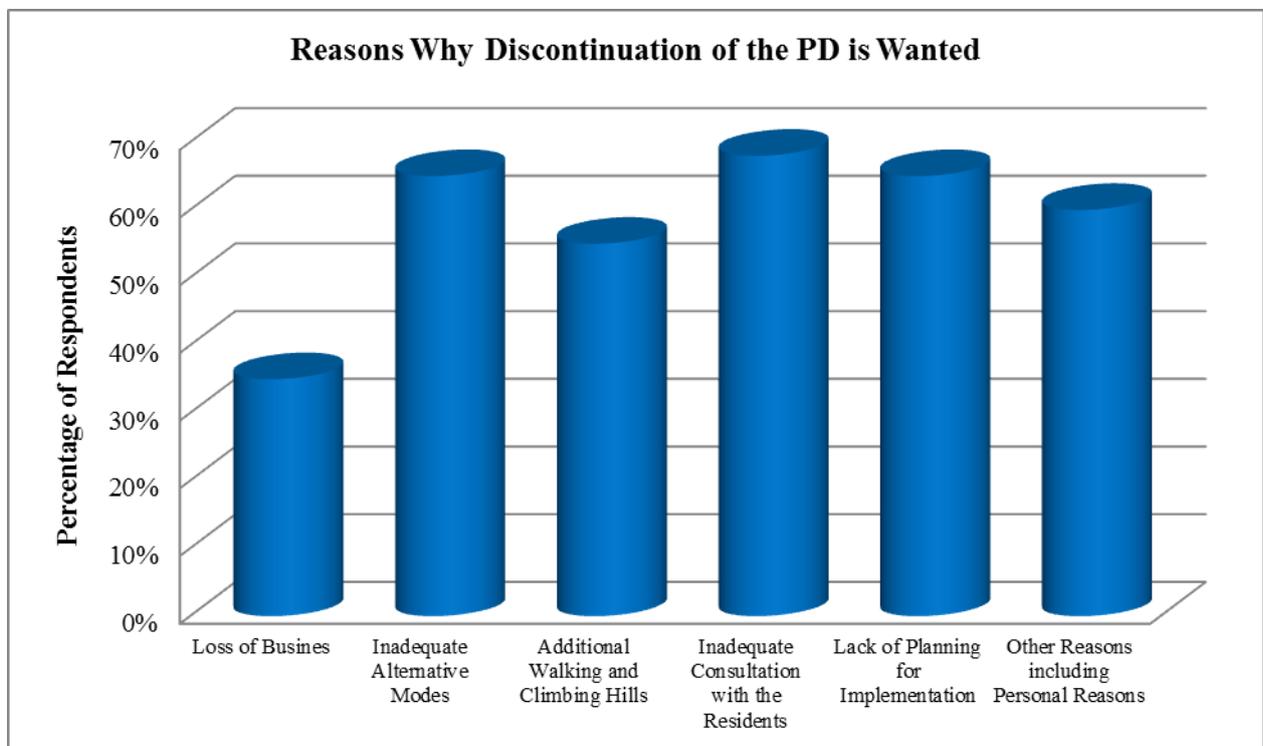
**Figure 6: Comparison Between Percentage of Respondents Wanting the PD to be Discontinued (by Profession) at two Different Stages of Implementation**



The study showed that the city dwellers in principle were in favor of the Pedestrian Day (PD) concept in Thimphu, Bhutan. However, the majority of them did not want the PD to be continued. Through comparison of the results of the two different stages of surveys, one important finding of the study is that more and more people started liking the concept of the PD through awareness, experience and with time. However, as time elapsed and with difficulties experienced during the PDs, more and more people started asking for discontinuation of the initiative.

Following the information gathered from the CRI survey of the first stage, at the second stage of the survey (as a part of this study), one of the items in the questionnaire was that why the respondent wanted the PD to be discontinued (provided it was applicable) and six choices were available. Multiple selections were allowed. The following bar chart shows the reasons chosen by the respondents that why they did not want the PD to be continued.

**Figure 3: Reasons for Wanting Discontinuation of the Pedestrian Day**



Other reasons for wanting the PD to be discontinued included a) unregulated taxis and overcharging of taxis during the PD; b) poor bus services in the core area was unable to support the additional need; c) inconvenience to parents with small school going children and d) inconvenience to the nursing mothers.

### III. CONCLUSIONS

The results of the two different stages of surveys showed that the city dwellers in principle were in favor of the Pedestrian Day (PD) concept in Thimphu, Bhutan. However, the majority of them did not want the PD to be continued. Through comparison of the results of the two different stage surveys, one important finding of the study is that more and more people started liking the concept of the PD through awareness and understanding. However, as time elapsed and with people experiencing various difficulties from the PDs, more and more people started asking for discontinuation of the initiative.

The survey results revealed that a) lack of stakeholder consultation before taking the administrative decision; b) inadequate implementation planning and insufficient implementation of mitigation measures; and c) inadequate provision for alternative modes of transport were the primary reasons for disfavoring the continuation of the PD. Other reasons included additional walking and climbing hills as the topography of the core area made walking difficult and tiring and the financial loss for business owners in the down town area.

One observation is that the decision of the PD was passed through an executive order and no systematic stakeholder consultation was done by the Government. Though some implementation planning was done, the mitigation measures taken for the observance of the PD were inadequate and not sufficiently implemented. For example, the topography of the core area did not encourage mothers with small children to walk and bus service remained at the same level as before, despite the

increased demand arising from the introduction of the PD. From the experience drawn from Thimphu, Bhutan, it can be concluded that prior to implementation of any proposed Travel Demand Management (TDM) measure in particular, and probably prior to implementing any sustainable transportation initiative, requires a) adequate stake-holder consultation; b) very thorough and appropriate planning and implementation of mitigation measures; and c) adequate supply of alternate modes to the one which is being restricted (i.e. private vehicle use).

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