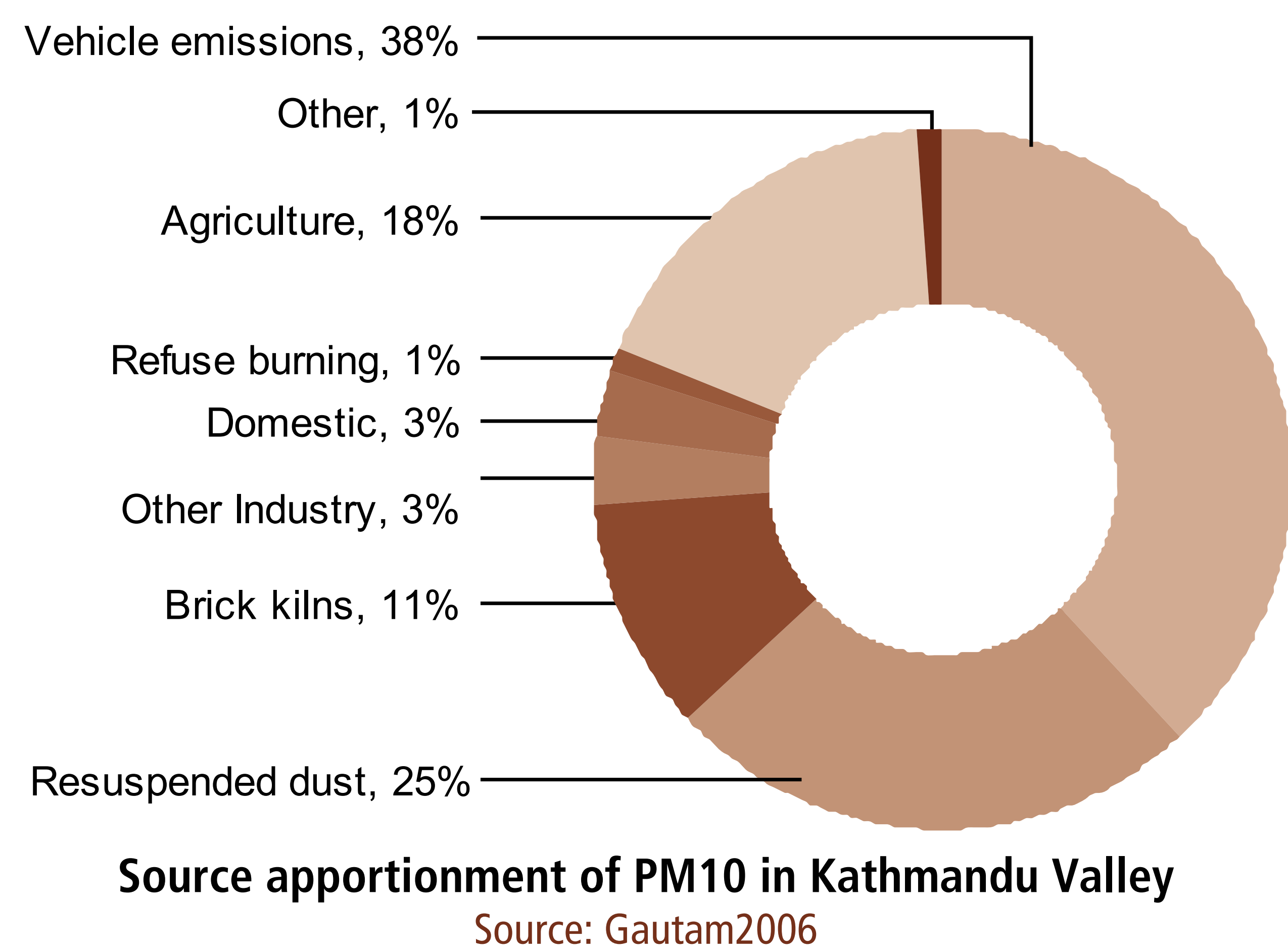


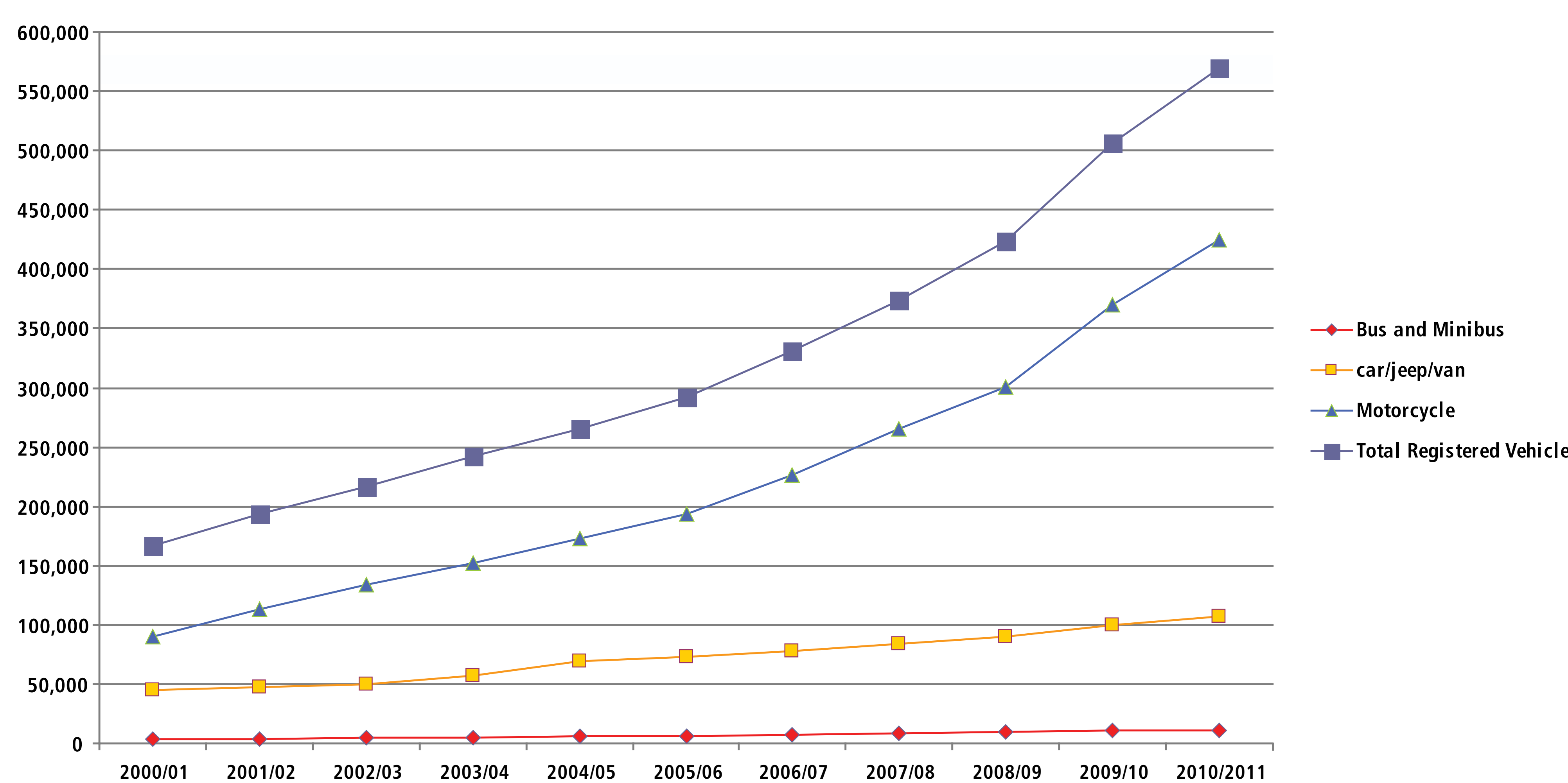
Sustainable Urban Mobility- Kathmandu Valley

Urban Transport and Air Pollution

- Transport activities contribute to **63%** of total PM10 emission (Gautam, 2006)
- Transportation is also major source of **PM2.5, NOx, NMVOCs** and **CO**.
- PM10 and PM2.5 level were found **10-13 times** and **5-8 times** the WHO guidelines (SEI 2009)
- 1,600** premature death each year due to air pollution (MoPE 2005)
- Reduction in PM10 levels in KV to international standards would reduce **1,35,475** cases of acute bronchitis in children, **0.5 million** asthma attacks, **4,304** cases of chronic bronchitis (CEN/CANN 2003)
- Nepal's annual health cost, attributed to urban air pollution, is **\$21 million**, equivalent to **0.29%** of the GDP (World Bank, 2008)

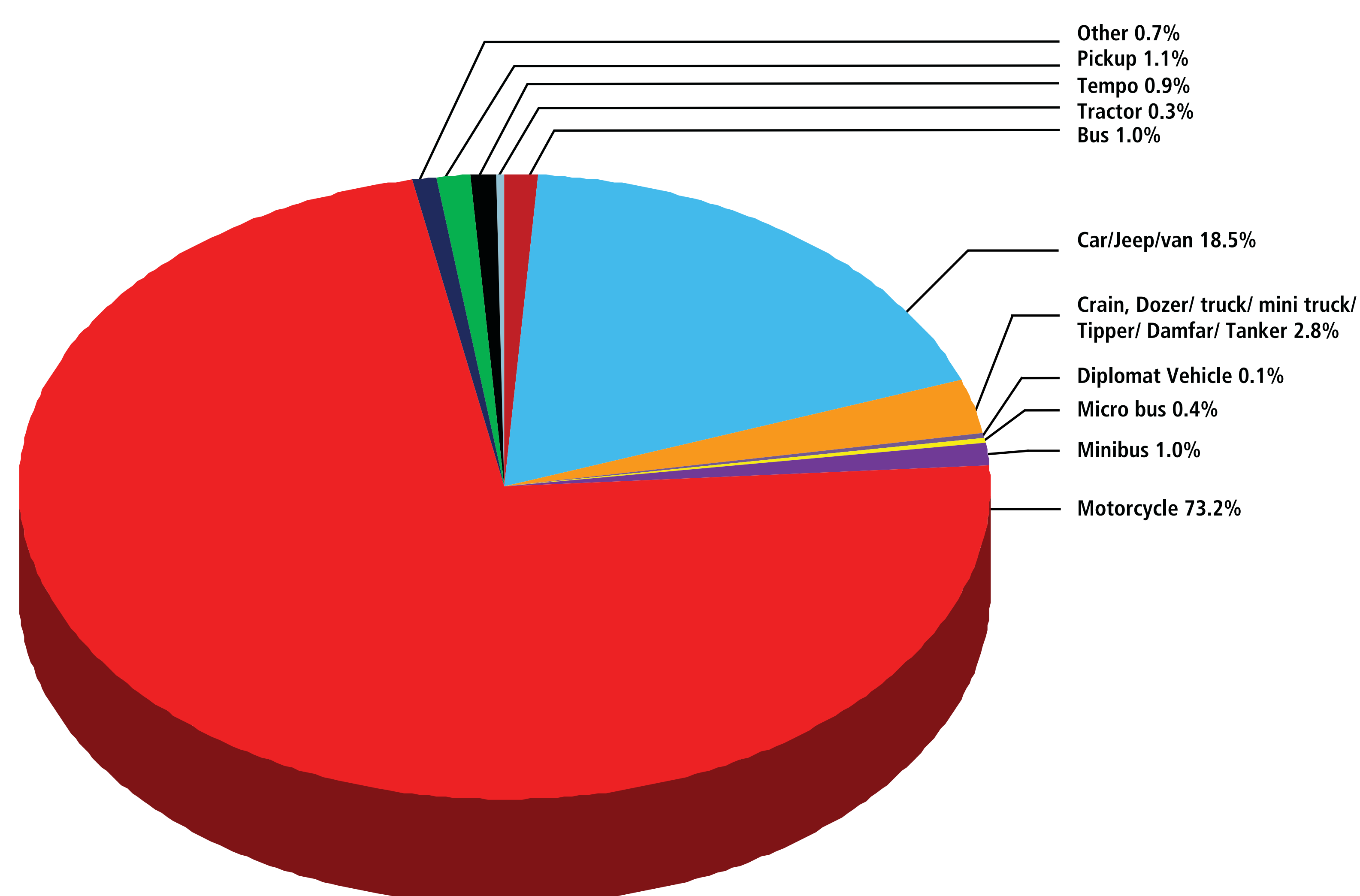


Motorization in Kathmandu Valley



Vehicle Registration in Kathmandu Valley (2001-2011)

- Around **6 lakhs** vehicle are registered between 2001-2011
- Almost **50%** of vehicles in Nepal are registered in Kathmandu Valley
- Annual growth rate of vehicle is **14%** (for motorbikes= 17%)
- In past 10 years, the number of registered vehicles has increased **3.75 times**.
- 93%** of vehicles registered are private vehicles, largely motorbikes (**73%**)
- Public transport vehicles constitute only **3%** of total vehicles fleet



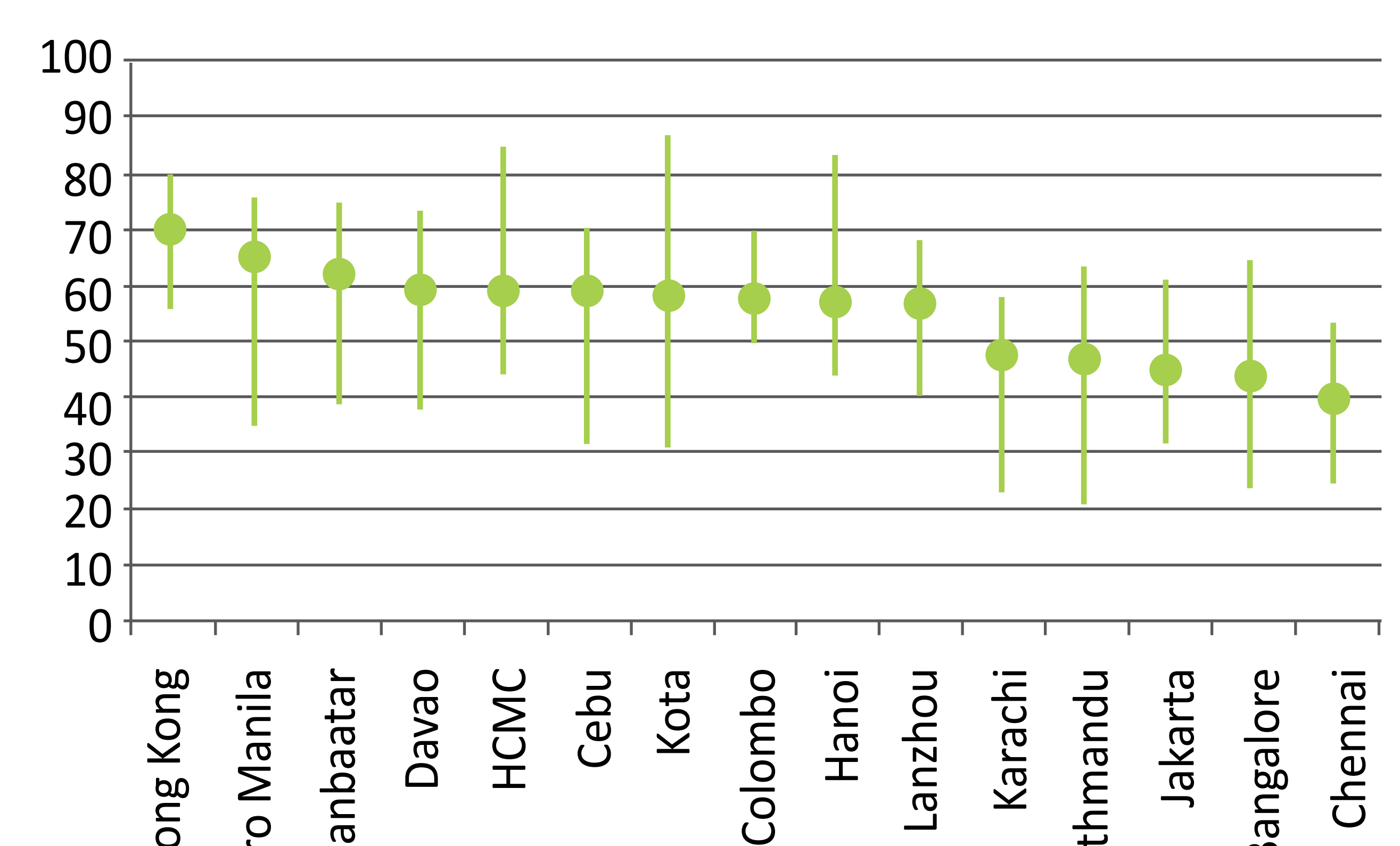
Travel Mode Share

Mode	2011	1991
Walk	40.7 %	53.1 %
Bicycle	1.5 %	6.6 %
Motorcycle	23 %	9.3 %
Car	4.2 %	3.8 %
Bus	27.6 %	27.2 %

- Non-motorized transport system (walking and cycling) dominates the travel mode share
- Large part of walking and cycling is replaced by motorcycles
- Mode share of motorcycles has increased by **2.5 times** whereas bicycle has decreased by **4.5 times**
- Cars and motorbikes constitute 93% of total vehicle fleets and have **27.2 %** travel share, less than what public transport vehicles (**3%** of total vehicle fleet) travel mode share is.

Walkability of Kathmandu

- Study shows Kathmandu as one of least walkable cities in Asia, categorized as **'Not Walkable'**
- 78%** of the respondents in Kathmandu rated pedestrian facilities either bad or very bad
- 94%** of surveyed road stretches in Kathmandu are not accessible to differently-able people.



Walkability Ratings of Asian Cities

Improved Urban Mobility



Improve **public transport system**



Bus Rapid Transit (BRT) System is affordable, flexible and efficient



Promote **vehicle free** in urban core areas



Promote **non-motorized transport system** (walking and cycling)

Build continuous, coherent, safer and attractive pedestrian ways

Build network of cycle tracks

"A city is more civilized not when it has more highways but when a child on a tricycle is able to move about everywhere with ease & safety – A city for people"
- Enrique Penalosa, Former Mayor of Bogota, Columbia