

SUSTAINABLE LIVELIHOODS, URBAN TRANSPORT & CLIMATE CHANGE

*Short-sighted Wisdom*

# Ban on Non-Motorised Transport in Kolkata

## **Switch ON** Kolkata

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We are grateful to Switch ON Kolkata for sharing their report with us and permitting us to use it for wider publicity and campaigns outside Kolkata also. This report has been modified from their original report and in no way constitutes original work by Hazards Centre, Sanchal Foundation. But Hazards Centre has shared its work on the Delhi BRT and assisted in guiding the research that made this report possible.

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## Introduction

The Kolkata police barred bicycles and all other Non-Motorised Transport (NMT) vehicles on 174 thoroughfares on 28th May 2013 under the West Bengal Traffic Regulation Act of 1965. This ban was an extension of the notification issued by the Commissioner of Police on August 11, 2008, which barred bicycles from plying between 9 am and 7 pm on 38 thoroughfares of the city, which includes almost all the major avenues in the centre of the city as may be seen from the map below:

**FIGURE 1: DETAIL OF ROADS ON WHICH NMT & CYCLE BAN IN KOLKATA**



## The Campaign

Switch On is an Environment Conservation Society in Kolkata which has a strong mission to Promote Livelihoods through Sustainable Development. In response to this ban Switch ON began mobilising users of NMT as well as concerned citizens in Kolkata to protest against the ban. The campaign called Chakra Satyagraha was extensively covered by the media:

- 25th August 2013 – Dozens of cycling enthusiasts gathered at Victoria Memorial in protest of the ban and cycled through the streets of Kolkata.
- 8th September 2013 – Nearly 500 cyclists (including newspaper vendors and milk vendors, whose livelihood is impacted) assembled to walk from Victoria House (Chowringhee Square) to Kolkata Press Club (Maidan).

- 2nd October 2013 – Nearly 5000 citizens of Kolkata (including cyclists, cart-pullers, rickshaw-pullers, handicapped with wheel chairs) whose life and livelihood is affected protested at Chowringhee Square through 'baul song' and 'street play' with their mouths tied with a ribbon, representing their loss of life and livelihood due to the ban.

Given that for an overwhelming mass of people in Kolkata, NMT is indispensable, Switch ON also issued a document summarizing the key issues in favour of this form of transport:

### 1. Social Equity

There are important links between transport systems, livelihoods and poverty, especially in developing countries and megacities like Kolkata. NMT offers significant benefits to marginal groups such as low income segments, service providers, the sick, the elderly, women and children, who need to cover short distances in and across densely populated areas. Additionally these vehicles are also an important source of employment to a significant proportion of the unskilled labour force in the city. Motorized transport is capital intensive and is too expensive for the urban poor as it accounts for a 20-30% of the monthly household income of BPL families.

### 2. Social Inclusion

According to the Ministry of Urban Development (2008), Kolkata is the only large city in India where trips by cycle (11 %) outnumber trips by cars (8 %), and people in Kolkata make nearly 25 lakh cycle trips a day - second only to Delhi. Users include petty traders, suppliers, carpenters, masons, newspaper vendors, office clerks, milkmen, and courier delivery boys. Also, according to Census Data 2011, there are more bicycles (252,887) in Kolkata than either 2-Wheelers (117,173) or 4-Wheelers (85,605). 50 to 75 % of commuter trips for those in the informal sector are accounted for by cycling or walking.

### 3. Urban Infrastructure/ Congestion

Contrary to popular belief (particularly amongst car owners and policy makers) cycles do not slow down vehicular traffic. The average speed of traffic in Kolkata varies between 14-18 km/ hour. This speed can be easily matched by the cycle. Most trips in Kolkata are made within 3 kms, which is most accessible by walking and cycling. Kolkata has the lowest number of private cars and the least amount of road space (6 %) among metro cities. Limited road infrastructure and dense intermediate transport networks makes NMTs the only practical mode of transport. Even smaller cities like Gwalior have more registered motor vehicles than Kolkata. NMTs also take 5 times less road space as compared to private cars.

### 4. Safety and Health

Traffic accident data for West Bengal (2011) shows that only 1.5 % of road accidents occur due to the fault of cyclists against 71 % due to faults of motor vehicle drivers. Bicycles are involved in only 5% accidents whereas pedestrians are involved in 64% of accidents. Pedestrians, cyclists and motorised two wheelers are the most vulnerable groups on Indian roads. Deaths of pedestrians and motorised 2 wheelers far outnumber the deaths of cyclists.

## 5. Pollution and Environment

According to statistics released by the Scientific and Environmental Research Institute, Kolkata has a suspended particulate matter (SPM) concentration of 511 compared to Delhi's 234 and Mumbai's 322. The West Bengal Pollution Control Board estimates that cars account for nearly 50 % of the air pollution load (leading to climate change and global warming). Seven out ten people in Kolkata suffer from various kinds of respiratory diseases due to air pollution. Key finding from studies by the Chittaranjan National Cancer Institute establish a direct link between air pollution in Kolkata and the high incidence of lung cancer at 18.4 cases per 100,000 people, and show that 70 % of city inhabitants suffer from respiratory diseases.

## 6. Economy

The people of the city are already reeling under severe economic stress due to an increase in fuel costs. The ban is especially surprising as the State Government has continually opposed increases in petrol prices. In the last two months alone, there have been six petrol hikes, while diesel prices have been hiked eight times since January. In Kolkata, after the last hike the petrol price is Rs. 81.57, while diesel prices have risen to Rs. 56.33. Since India imports more than three-fourths of the crude oil it requires, fuel subsidies put increasing pressure on the fiscal deficit. Bicycles can compete with the "faster" cars on costs, energy use, pollution, and congestion.

Switch ON also met with several authorities in the West Bengal Government, including: the Minister of Transport, the Special Secretary of Transport, the Deputy Commissioner (Traffic) of Kolkata Police, the Additional Chief Secretary of Environment, and the Joint Municipal Commissioner (Revenue) of the Kolkata Municipal Commission, to discuss with them the logic of the ban. But the authorities kept passing the responsibility on to each other and the ban could not be revoked.

## The Congestion study

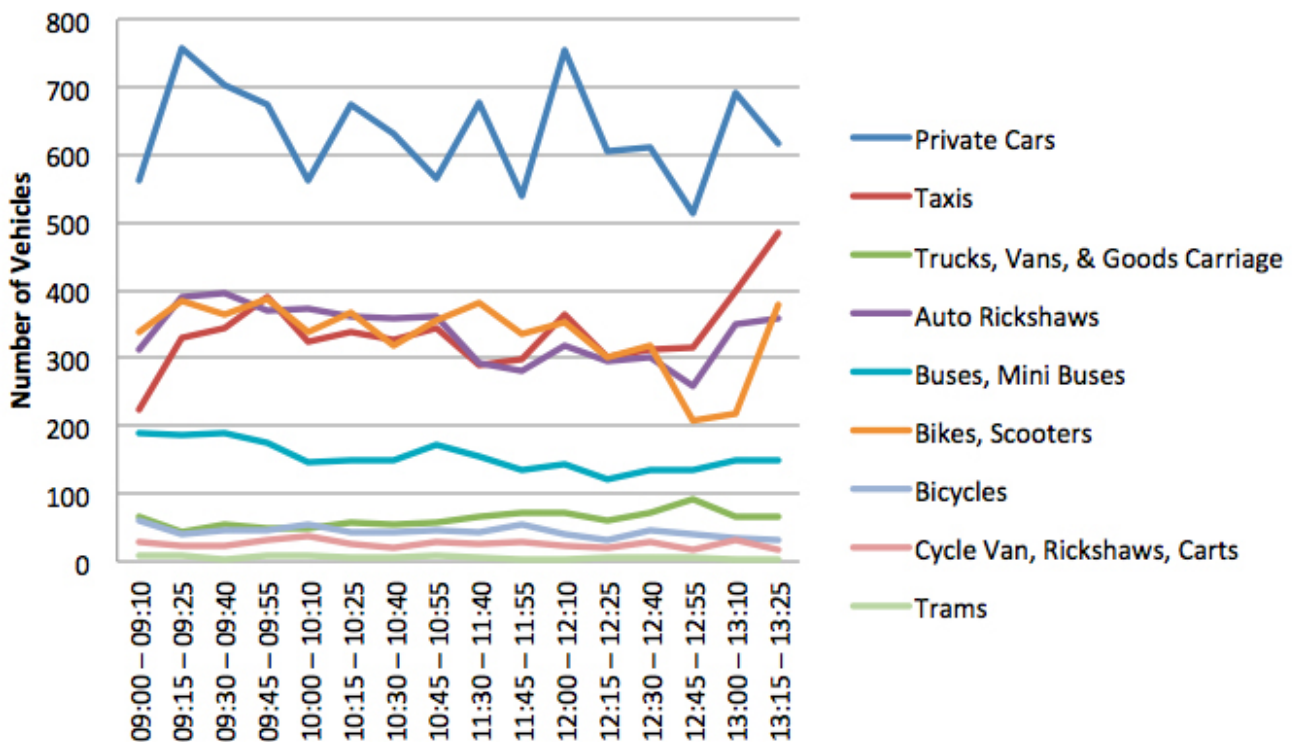
In October 2013, Switch ON, under advice from the Hazards Centre began a congestion survey in key points of the city. It was observed that the major share of the work-force was commuting from the suburbs to the city during peak hours which extends from 9 am to 11 am. The return peak hours spread out from 6 pm to 9 pm. The lean hours are from 1 pm to 4 pm and 10 pm to 6 am. These are also the hours when heavy goods vehicles are allowed inside the city. Pilot surveys were first conducted between 9 am to 11 am and 11.30 am to 1.30 pm and it was found that there was not much difference in traffic congestion during these two periods. Switch ON researchers then selected 6 foot-bridges and 2 major crossings where the ban was in force and traffic counts could be conducted during peak hours. At the two crossings, the count of vehicles was conducted between 7 am and 11.30 am in 10 minute slots with 5 minute gaps in between. Traffic counts were conducted at the foot-bridges between 9 am and 1.30 pm, again in 10 minute slots with 5 minute gaps in between. The data is presented below:

# BAN ON NMT IN KOLKATA

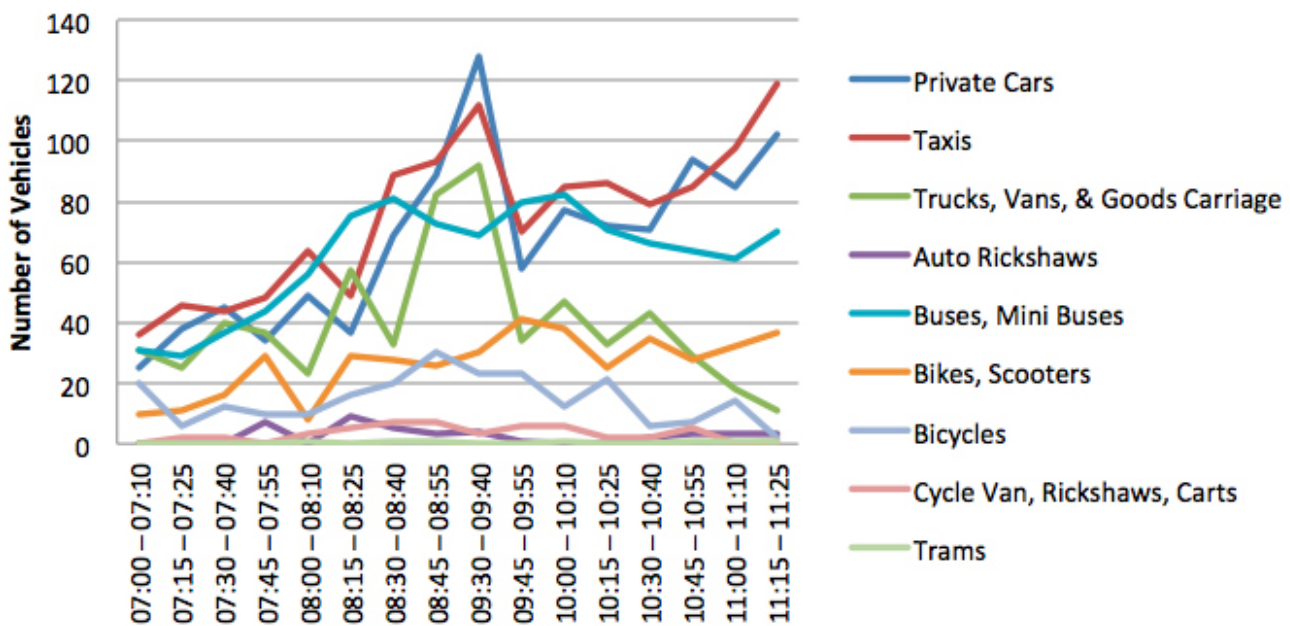
**TABLE 1: COUNT OF ALL MODES AT FOOTBRIDGES AND INTERSECTIONS DURING PEAK HOURS**

FOOT-BRIDGES	Private Cars	Taxis	Trucks, Vans & Goods Carriage	Auto Rickshaws	Buses, Mini Buses	Bikes, Scooters	Bicycles	Cycle Van, Rickshaws, Carts	Trams	TOTAL
Sealdah	2661	1380	220	295	549	1126	54	81	58	6424
Ekdalia	1430	599	103	1788	346	584	180	42	0	5072
Ultadanga	1126	608	247	1946	445	542	221	72	5	5212
Dhakuria	2027	1263	132	519	396	895	95	0	0	5327
Raja Bazar	997	627	182	30	608	700	98	189	29	3460
Park Circus	1897	913	111	804	137	1501	51	32	0	5446
Hazra Xg	638	628	440	40	391	258	158	27	7	2587
Dharamtala Xg	435	575	195	0	598	165	74	24	0	2066
<b>Total Vehicles</b>	<b>11211</b>	<b>6593</b>	<b>1630</b>	<b>5422</b>	<b>3470</b>	<b>5771</b>	<b>931</b>	<b>467</b>	<b>99</b>	<b>35594</b>
<b>Commuters</b>	<b>11211</b>	<b>13186</b>	<b>1630</b>	<b>21688</b>	<b>173492</b>	<b>5771</b>	<b>931</b>	<b>467</b>	<b>2475</b>	<b>230851</b>
<b>% Vehicle</b>	<b>31.5</b>	<b>18.5</b>	<b>4.6</b>	<b>5.2</b>	<b>9.8</b>	<b>16.2</b>	<b>2.6</b>	<b>1.3</b>	<b>0.3</b>	<b>100</b>
<b>% Commuter</b>	<b>4.9</b>	<b>5.7</b>	<b>0.7</b>	<b>9.4</b>	<b>75.2</b>	<b>2.5</b>	<b>0.5</b>	<b>0.2</b>	<b>1.1</b>	<b>100</b>

**FIGURE 2: TRENDS OF TRAFFIC COUNT FROM 6 FOOTBRIDGES**



**FIGURE 3: TIME-WISE TRENDS OF VEHICLE COUNTS AT 2 MAJOR CROSSINGS**



From the data above, certain conclusions could be drawn

1. Bicycles constitute 2.6% and are more than other NMT that constitute only 1.3% of the total traffic volume. This marginal number cannot be held to cause congestion.
2. Private Cars constitute 31.5% of the total number of vehicles, but carry only 4.9% of commuters.
3. Buses and Mini Buses constitute only 9.8% of the total number of vehicles, while transporting 75.2% of commuters.
4. While 52.2% private vehicles transport only 8.1% commuters, 43.8% public vehicles carry 91.3% commuters.

The above figures clearly indicate that public transport should be encouraged to carry the ever increasing number of commuters in the given road space that is already constrained (only 6% of the city area is dedicated to roads).

## Other Factors

### Pollution

Kolkata is heavily polluted and automobiles account for nearly 50% of the pollution load. Hence, investing in public transport and NMT would significantly reduce emissions and related climate change as well as health impacts.

### Economy

Reliance on imported oil weakens the economy, leaving it at the mercy of global crises, and is therefore another compelling reason to promote cycles and NMT.

### Mobility

Mobility plans as proposed by Kolkata Metropolitan Development Authority, National Urban Transport Policy, and Planning Commission emphasise that:

- Non-motorised transport is a safe, comfortable, secure, and timely mode.
- Public transport shifts the modal distribution, thereby reducing congestion and pollution.
- Segregated cycle tracks / walkways enhance vehicle movement and reduce health costs.
- Pedestrian and bicycle paths are also sensitive to physically handicapped persons' movement.



## Recommendations

Hence, Switch ON recommends that:

- Holistic sustainable urban planning can provide for NMT by proposing dedicated corridors.
- But planning for NMT infrastructure has to be within a larger paradigm that promotes public transport.
- It is city design that makes it convenient and safe to walk, cycle, and use public transport.
- Reducing personal motor vehicles can make cities less congested, safer and less polluted.
- This will also reduce the nation's dependency on imported fuel and improve the economy.
- It will improve health and mitigate the impacts of climate change.



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