



ENVIS CENTRE, CHANDIGARH

NewsLetter

P a r y a v a r a n - P a t r a

Chandigarh State of Environment

Vehicles In Chandigarh

EDITORIAL

Numbers of initiatives have been taken by Chandigarh Administration in order to tackle Vehicular population as well as associated environmental issues. Lead free petrol was introduced in Chandigarh in early 2000. LPG since 2009 for three wheelers is made mandatory. 'Pollution Under Control' (PUC) certificates are compulsory for all vehicles except certain battery driven two wheelers. Routes of heavy transport vehicles and interstate buses have been specified. The inter-state bus stand is shifted from sector 17 to sector 43 to keep buses off the inner roads and Metro project is approved etc. Still, cause of concern is growing population of vehicles with no more or very little capacity left in roads to grow.

Air quality of Chandigarh has been in question as pollution from vehicles has been identified as major source of pollution in Chandigarh. It is worrisome that despite of separate roads being developed for cyclists, population of Cycles is decreasing in Chandigarh. With such a rapid growth of four wheelers, one needs to ponder over the availability of roads. The present issue deals with such issues and tries to sensitize stakeholders on the matter of concern.

Director, Environment

The Adviser to the Administrator UT, Chandigarh Mr. K.K. Sharma inaugurating the 23rd Road Safety Week-2012 at Chandigarh Traffic Park, Sector-23, Chandigarh



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Keep world clean and green



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Vehicular Trend

Chandigarh situated in foothills of Shivalik is known for its wider and efficient roads. It has attained the moniker 'City Beautiful' for its aesthetic open spaces and lush green urban forestry. The feather in cap is the automatic traffic regulation present on each and every road of Chandigarh.

6% of total land area is covered under the roads. The circulation system comprises of 7 different types of roads known as 7 Vs. Later on a pathway for cyclists called V8 was added to this circulation system. The city's vertical roads run northeast/ southwest (The 'Paths') and the horizontal roads run northwest/southeast ('The Margs') (City Development Plan Chandigarh).

The delimitation of Chandigarh is its confined area. While human and vehicular population is growing, the roads are reaching to their possible limits. Numbers of cycles have decreased from 68.3% to 57.5%. Two and four wheelers have grown in numbers adding to roads having already plenty of vehicles. Ambient air quality and pollution caused by vehicles has become matter of concern. CPCB has recognized that vehicles are major source of pollution in Chandigarh.

Vehicular Trend at National Level

Indicator	2001	2011	Change
Car/Jeep/van	2.5	4.7	2.2
Scooter/Motor cycle	11.7	21	9.3
Bicycle	43.7	44.8	1.1
Indicator	2001	2011	Change
Car/Jeep/van	15.4	25.7	10.3
Scooter/Motor cycle	43.2	46.7	3.5
Bicycle	68.3	57.5	-10.8

Census Info 2011

Traffic Congestion

Traffic congestion is a condition on road networks that occurs as use increases, and is characterized by slower speeds, longer trip times, and increased vehicular queueing. The most common example is the physical use of roads by vehicles. When traffic demand is great enough that the interaction between vehicles slows the speed of the traffic stream, this results in some congestion.

As demand approaches the capacity of a road (or of the intersections along the road), extreme traffic congestion sets in. When vehicles are fully stopped for periods of time, this is colloquially known as a traffic jam or traffic snarl-up. Traffic congestion can lead to drivers becoming frustrated and engaging in road rage.

<http://en.wikipedia.org/>



Human Population Vs Vehicular Population

Chandigarh was planned for a population of half-a-million. In Phase I, 36 sq km of land was acquired by the city administration for construction of 30 sectors. Land for seventeen additional sectors (Sector 31 to 47) was acquired and developed during the second phase to cater for a population of 350,000. The predominance of ¾ storey apartments in the second phase provide for higher population dimension. However, Chandigarh has now grown beyond its planned capacity

www.chandigarh.gov.in

Human Population of Chandigarh

Year	Total	Male	Female	Decennial Rate of Growth
1961	119881	72576	47305	-
1971	257251	147080	110171	114.59
1981	451610	255278	196332	75.55
1991	642015	358614	283401	42.16
2001	900635	506938	393697	40.33
2011	1054686	580282	474404	17.1

If Chandigarh was planned for the half-a-million human population, then what was the estimate of vehicular population? Considering the times of its inception, the foundation stone of the city was laid in 1952, the figure of hundreds of thousands was surely not in plan. City has seen massive growth in terms of vehicular population and still growing.

Vehicular Population of Chandigarh

Year	Cars /Jeep	MotorCycle /Scooter /Moped	Auto Rikshaw, Three Wheeler (Passenger)	Buses	Goods Vehicle	Tractors	Total	Decennial Rate of Growth
1971	1031	9212	29	53	46	0	10371	
1981	9090	53907	99	206	259	0	63561	512.87
1991	37269	115272	394	510	869	0	154314	142.78
2001	78613	182984	909	2906	2428	0	267840	73.56
2011	143672	196899	3290	819	2321	141	347142	29.60

Once declared congestion free, city roads has started feeling pressure of traffic. Commuters have started learning what a traffic jam can be. Accidents have increased many folds. Ambient Air Quality has come in question for high SPM and RSPM accumulations. Time to introspect has come. Chandigarh Administration is going ahead with Metro Project in order to meet transport requirements considering the environment in focus.

Diesel Vs Petrol Driven Vehicles' Registration

Five types of fuels are available in Chandigarh: Diesel, Petrol, LPG, Battery, and Solar Fuel. One should be aware of pros and cons of all such fuels while planning to buy a new vehicle or converting the old one to different type of fuel system. Diesel is cheaper when refilled but solar is free when recharging. The situation in Chandigarh is given in stat as below:

Diesel

Year	A	B	C	D	E	F	G	% Change
2005	82	0	2281	0	127	4	2494	
2006	78	0	3384	0	145	17	3624	45.3087
2007	0	0	5042	0	169	42	5253	44.9503
2008	77	0	6449	0	161	14	6701	27.5652
2009	167	0	6502	1	129	18	6817	1.73108
2010	172	0	10271	3	696	32	11174	63.9137
2011	336	0	11076	5	1584	26	13027	16.5831
2012	333	0	16757	5	1203	28	18326	40.6771
Sum	1245	0	61762	14	4214	181	67416	

A Auto Rickshaws/Three Wheelers

B Commercial vehicles

C Four Wheeler

D Motor Cycle, Scooters And Moped

E Taxis, Buses, Goods/Transport Vehicles etc

F Tractors

G Grand Total

It is evident from the stat that diesel driven vehicles are getting popular in Chandigarh. The data on Internet shows conflict on comparison of emissions from petrol and diesel. Since diesel is cheaper and economical aspects are to be considered also. Readers are suggested to go through 'Specification of diesel fuel for emission related parameters' that are available on www.cpcb.nic.in.

Petrol

Year	A	B	C	D	E	F	G	
2005	4	0	7116	18175	0	0	25295	
2006	1	0	7817	19772	0	0	27590	9.07294
2007	1	0	8524	18547	0	0	27072	-1.87749
2008	0	0	8509	18145	0	0	26654	-1.54403
2009	0	0	10592	18111	0	0	28703	7.6874
2010	0	0	15196	24761	8		39965	39.2363
2011	1	0	10600	26357	16	0	36974	-7.48405
2012	9	0	8135	24553	13	0	32710	-11.5324
Sum	16	0	76489	168421	37	0	244963	

LPG and Battery Driven Vehicles in Chandigarh

Since 2009, Chandigarh Administration has put autos on ultimatum to get converted into LPG. No diesel driven autos are to be allowed to ply within city limits. Since then 2076 autos are converted into LPG or new are added to the sum. Worrisome fact is that diesel and petrol driven 3 wheeler are still being registered in Chandigarh. The Administration may consider further stopping registration of Diesel/Petrol driven vehicles in order to promote cleaner fuel.

LPG

Year	A	B	C	D	E	F	G	
2005	0	0	3	0	0	0	3	
2006	0	0	13	0	0	0	13	333.3333
2007	0	0	7	0	0	0	7	-46.1538
2008	51	0	39	0	0	0	90	1185.714
2009	1162	0	197	0	0	0	1359	1410
2010	599	0	83	0	3	0	685	-49.5953
2011	221	0	44	0	4	0	269	-60.7299
2012	43	0	48	0	0	0	91	-66.171
SUM	2076		434	0	7	0	2517	-86.2654

A Auto Rickshaws/Three Wheelers

B Commercial vehicles

C Four Wheeler

D Motor Cycle, Scooters And Moped

E Taxis, Buses, Goods/Transport Vehicles etc

F Tractors

G Grand Total

Battery driven vehicles are to be promoted for cleaner fuel. There are number of vehicles plying driven by Battery in Chandigarh but since registration of certain battery driven two wheelers, data is not available with registering authority.

Battery

Year	A	B	C	D	E	F	G
2005	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0
2010	0	0	0	3	0	0	3
2012	0	0	1	0	0	0	1
SUM	0	0	1	3	0	0	4

****No provision of CNG in Chandigarh**

Roads' Length In Chandigarh

Following are the stat of roads' length in Chandigarh being maintained by PWD, MC, and Chandigarh Administration:

Year	National Highways	City Roads PWD	City Roads MC	Rural Roads	Total In Kms	Unit
2000-01	64	139.6	1489	72.66	1764.72 Kms	
2001-02	67	219.23	1489	72.66	1847.89 Kms	
2002-03	67	219.23	1489	72.66	1847.89 Kms	
2003-04	77	393.8	1489	89.66	2049.46 Kms	
2004-05	80	403	1536	102	2121 Kms	
2005-06	80	825	1536	102	2543 Kms	
2006-07	80	853.97	1536	73.03	2543 Kms	
2007-08	80	853.97	1580	73.03	2587 Kms	
2008-09	95.23	656.84	1504.49	114.46	2371.02 Kms	
2009-10	95.23	674.01	1532.58	132.44	2434.26 Kms	
2010-11	95.23	847.61	1771.59	170.24	2884.67 Kms	

**360 Kms of roads are being maintained by Chandigarh Administration

Considering the above stat, imagine if all vehicles, 894356 (year 2012), of Chandigarh are on the roads of Chandigarh, approx 276 vehicles would be lined up per Km. To add to the mix, count other thousands of vehicles that enter the city from the neighboring towns almost every day.

Readers can realize virtually the problems that commuters experience everyday. The need of hour is to rationalize the use of motorized vehicles. The trips may be planned using public transport system which is one of the best in nation. Vehicles may be pooled if destination is same e.g. office.

Pool your vehicles

would you like to pool



Sure



Drive Cycle: Be winner

I have learnt
Cycle again



Doctor
Advised?



No!!
My conscious did





Dear Information Seeker,

ENVIS CENTRE, Chandigarh furnishes you with the services to collect and disseminate information related to environment of Chandigarh. To share information with us you are requested to fill up the form given below.

Your feedback is valuable to us and will be highly appreciated



- Name _____
- Designation _____
- Department _____
- Address _____
_____ City _____
- State _____ Country _____ Pin _____
- Phone _____ Fax _____
- Email _____

Your views on scope of improvement :

- Interest Area _____

I would like to have information on following :



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(Project Coordinator)

Er. Arun Bansal
(Consultant)

Mr. Surinder Kumar
(Data Entry Operator)

Useful Fact and Figures

The city is divided into four sub-divisions (see map) and traffic regulation in each subdivision is done by a traffic team led by a separate Traffic Inspector. Chandigarh Traffic Control Room's toll free traffic Help line is 1073. Chandigarh Traffic Park, Sector 23, is used to test aspiring drivers for driving license on every Monday, Wednesday and Friday, and also traffic awareness lectures held free of cost in the same park. One can visit the Chandigarh Traffic Police Facebook Page www.facebook.com/trafficpolicechd to give valuable comments.

You can compare your vehicle for fuel economy on:
<http://www.energywise.govt.nz/tools/fuel-economy>

Traffic Police Information



For booking your school visit to the Children Traffic Park, Sector 23 or for organising an exhibition / lecture on traffic safety or for any query regarding driving tests, please contact Second Incharge Children Traffic Park, Sector 23 at Chandigarh at
phone no:- 0172-2700314
or email to :- chdtrafficpark@yahoo.com

<http://www.chandigarhtrafficpolice.org/>



Arun Bansal

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To,

Book Post

Reviewed By Ms. Shikha Aggarwal

Note : While every care has been taken in compilation of the information available for this newsletter. However, readers must make thorough confirmation/enquiries at their own level before acting upon any data/information provided to the readers. Any discrepancy brought in the notice of ENVIS CENTRE, Chandigarh will be highly appreciated.