

Delhi, India

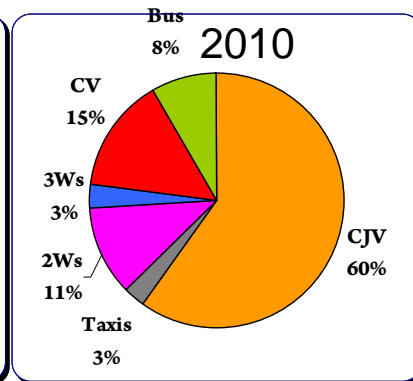
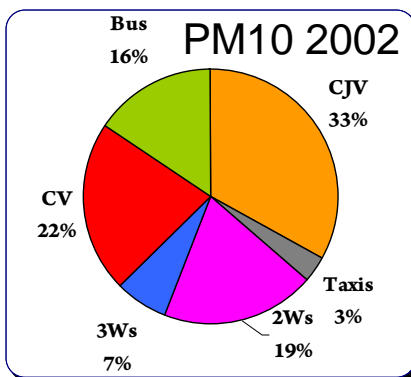
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For the National Capital Region, the **impact of metro rail** on the local air pollutants was investigated using one of the SIM-air family tools.. Smart-CART (Smart Carbon Analysis for Road Transport). The inputs on vehicular usage are from CRRI and the average emission factors from the VAPIS tool.

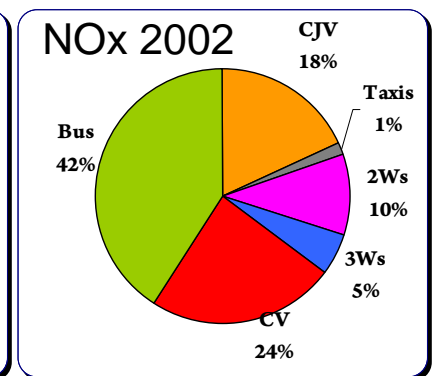
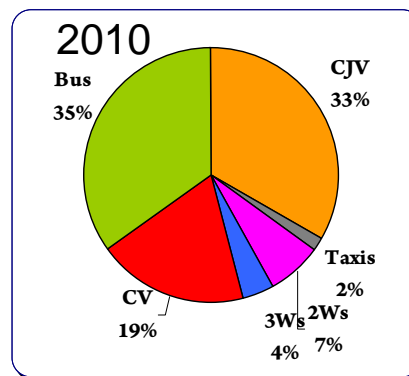
Approximately, 2.5% annual increase in VKT is assumed and assumed splits are presented in the table.

Category -- VKT	2002 - % of 79.2mil km	2010 - % of 96.5mil km	2010 - % with metro	2020 - % with metro etc
Cars/Jeeps/Vans	38	43	38	33
Taxis	1	1	1	1
2 Wheelers	42	37	32	32
3 Wheelers	12	10	9	9
Commercial Vehs	3	3	3	3
Bus Service	4	6	6	5
Total	100	100	89	83



2000's experienced a large increase in the personal cars/jeeps/vans and more specifically diesel vehicles, which nullified the CNG bus conversion effects.

NO_x emissions, a precursor to the ozone formation also increased (presented here), along with SO₂, CO, and CO₂ emissions. Table below summarizes totals in tons/yr.



Year/Scenario	PM10	SO2	NOx	CO2
2002 BAU	6,336	2,632	18,329	4,346,237
2010 BAU	11,693	4,713	28,157	6,065,999
2020 BAU	18,459	7,313	40,117	7,958,948
2010 with Metro	10,636 (9% red)	4,318 (8% red)	26,660 (5% red)	5,569,162 (8% red)
2020 with Metro	14,580 (21% red)	5,604 (23% red)	31,344 (22% red)	6,398,281 (20% red)

