Table 5.2a
Fleet Average Vehicle Emission Factors (gkm⁻¹) used in
Stage 2 Level 1 Air Quality Assessment

Year		M/C	P/C	Taxi	PV	PLB	LGV	HGV	NFB	FBSS	FBDD
Fuel		P	P	D →LPG	D	D	D	D	D	D	D
1997	NOx	0.55	1.75	1.55	2.37	2.27	1.78	7.76	12.66	12.06	12.06
	VOC	11.93	1.01	0.36	0.74	0.72	0.70	2.22	2.39	2.33	2.33
	RSP	0.03	0.04	0.65	0.74	0.72	0.54	1.42	1.56	1.49	1.49
2001	NOx	0.55	1.22	1.51	2.17	2.05	1.62	6.74	10.72	10.73	10.73
	VOC	11.62	0.66	0.29	0.63	0.60	0.62	2.05	2.19	2.21	2.21
	RSP	0.03	0.04	0.15	0.49	0.42	0.34	1.16	1.20	1.22	1.22
2006	NOx	0.48	0.83	0.84	1.67	1.70	1.39	5.07	7.15	9.26	9.26
	VOC	8.29	0.43	0.43	0.48	0.48	0.55	1.64	1.62	1.98	1.98
	RSP	0.03	0.03	0.01	0.22	0.18	0.15	0.81	0.74	1.01	1.01
2011	NOx	0.37	0.71	0.73	1.53	1.54	1.23	3.84	5.54	6.80	6.80
	VOC	4.77	0.41	0.40	0.45	0.45	0.52	1.32	1.27	1.53	1.53
	RSP	0.03	0.03	0.01	0.16	0.12	0.11	0.53	0.50	0.69	0.69
2016	NOx	0.37	0.71	0.73	1.53	1.54	1.23	3.84	5.54	6.80	6.80
	VOC	4.77	0.41	0.40	0.45	0.45	0.52	1.32	1.27	1.53	1.53
	RSP	0.03	0.03	0.01	0.16	0.12	0.11	0.53	0.50	0.69	0.69

Notes on Fleet Average Emission Factors:

Abbreviations:

M/C = Motorcycle
P/C = Private Car
Taxi = Taxi
PV = Passenger Van
PLB = Public Light Bus
LGV = Light Goods Vehicle
HGV = Heavy Goods Vehicle
NFB = Non-Franchised Bus
FBSD = Franchised Bus Single Decker
FBDD = Franchised Bus Double Decker

NOx = Oxides of Nitrogen
VOC = Volatile Organic Compounds
RSP = Respirable Suspended Particulates
LPG = Liquefied Petroleum Gas
D = Diesel
P = Petrol

Assumptions:

- LPG taxi starts from 2001, 100% by end of 2005.
- Euro III emission standards start from 2001
- Due to lack of 2016 emission factors, 2011 emission factors are assumed to prevail.

5.2.3   Apart from emissions from vehicle engines via the exhaust (hereafter refers to as tailpipe), particulate emissions also occur whenever vehicle travels over a paved surface. A USEPA method was used for the estimation of the paved road dust (prd) emissions and this involves two key variables:

- road surface silt loading value
- average vehicle weight

5.2.4   A silt loading value of 0.02 gm⁻² was assumed and is considered the best estimate of roads with high traffic volume. The quantity of dust emissions from vehicle traffic on a paved road may be estimated using the following expression[1]:

$$E = k * (sL/2)^{0.65} * (W/3)^{1.5}$$

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[1] USEPA AP-42 5ᵗʰ Edition