

Table 1 Base vehicle operating costs (CB) including CO₂ - in cents/km (July 2002)

% gradient	Mean vehicle speed (over length of route)				
	0–30 km/h	31-50 km/h	51-70 km/h	71-90 km/h	91-105 km/h
0	24.1	20.1	19.7	20.3	21.3
1 to 3	24.4	20.4	19.9	20.6	21.6
4 to 6	25.3	21.5	21.0	21.7	22.7
7 to 9	26.7	23.2	22.9	23.6	24.7
10 to 12	28.5	25.3	25.2	26.2	27.4

Table 2 Roughness costs (CR) in cents/km (July 2002)

Unsealed road roughness before sealing can be assumed to be 6.5 IRI (\approx 170 NAASRA counts) and 2.5 IRI (\approx 66 NAASRA counts) after sealing. If values higher than 6.5 IRI (or 170 NAASRA) for initial roughness of unsealed roads are used these need to be substantiated.

IRI m/km	NAASRA counts/km	CR cents/km urban	CR cents/km rural	IRI m/km	NAASRA counts/km	CR cents/km urban	CR cents/km rural
2.5	66	0.0	0.0	6.0	158	5.9	11.4
3.0	79	0.2	0.1	6.5	172	7.5	13.8
3.5	92	0.4	0.7	7.0	185	9.2	16.1
4.0	106	1.0	2.2	7.5	198	10.9	18.5
4.5	119	1.8	4.3	8.0	211	12.6	19.4
5.0	132	3.0	6.7	8.5	224	14.3	20.0
5.5	145	4.3	9.1	9.0	238	15.9	20.7

Table 3 VOC discount factors (DF^{VOC}) for different traffic growth rates for years 2 to 25 inclusive

Growth rate	0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%
Discount factor (DF ^{VOC})	8.57	8.95	9.32	9.70	10.07	10.45	10.83	11.20	11.58