



Status of Environmentally Sustainable Transport in Brunei Darussalam

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Country Profile

- 5,765 sq. km.
- More than 70% forest
- 2004 Population 359,000 ; growth rate 2.9%
- 2003 GDP per capita \$13,882 ; annual growth rate of 3.8%.

Brunei Darussalam

Bandar Seri Begawan

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Road infrastructure

YEAR	2002	2003	2004
Length of road (km)	3,357.5	3,470.5	3,560.4
Road Surface (km)			
Permanent	2,468.4	2,701.9	2,779.6
Improved	654.0	594.5	606.7
Unimproved	235.1	174.1	174.1

- 2004 – 14,514 newly registered vehicles
- Almost 99% are non-government or privately owned vehicles
- 2005 – 16,175 newly registered
- Accumulated number – 275,428

Road accidents

YEAR	2000	2001	2002	2003	2004
Accidents	2,861	2,794	2,838	2,625	2,625
Deaths	41	45	40	28	36
Injured	554	537	549	645	619

Type of Diseases	Total	%	Rate for 100,000 Population
Cancer	218	21.6	60.9
Heart Diseases (include Acute Rheumatic Fever)	185	18.3	51.7
Diabetes Mellitus	78	7.7	21.8
Cerebrovascular Diseases	72	7.1	20.1
Bronchitis, Chronic and Unspecified Emphysema & Asthma	48	4.8	13.4
Hypertensive Diseases	42	4.2	11.7
Certain Conditions Originating in the Prenatal Period	38	3.8	10.6
Transport Accident	38	3.8	10.6
Influenza and Pneumonia	22	2.2	6.1
Congenital Malformations, Deformations & Chromosomal Abnormalities	17	1.7	4.8
Other Diseases	252	25.0	70.4
TOTAL	1010	100	282.1

Relevant organisations

- Land Transport Department, Ministry of Communication
- Department of Roads of Public Works Department,
- Department of Environment, Parks and Recreation, Ministry of Development
- Ministry of Health
- National Road Safety Council

Environmental Air Quality

- from oil and gas industry
- vehicle emissions,
- forest fires and
- open burning.

Fuel demand

Thousand Litres

YEAR	2000	2001	2002	2003	2004
Motor Gasoline					
Premium Ron97	141,768	148,161	157,625	166,654	174,355
Regular Ron85	51,425	53,402	57,126	56,694	56,342
Super Ron92	62,247	56,222	51,951	45,936	41,062
Diesel	119,229	124,920	134,630	147,951	158,912
Kerosene	3,236	3,151	3,120	3,114	3,943
Jet A-1	80,762	84,488	97,761	95,032	90,022

Constraints

- Ambient air monitoring (PM10 and PM2.5) only
- No roadside air monitoring
- Vehicle air emission assessment during vehicle inspection is not mandatory
- and no noise monitoring

AIR QUALITY (PM10) FOR NEGARA BRUNEI DARUSSALAM FROM JANUARY TO DECEMBER 2006



Conclusion

- Increasing number of vehicles
- Air monitoring need to be improved with regards to transport air emission