

# **Developing Integrated Emission Strategies for Existing Land Transport (DIESEL)**



## **Motor Vehicle Fleet and Characteristics in Bangkok, Thailand**

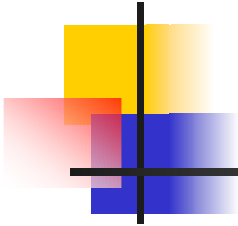
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Diesel Pollution Reduction Project

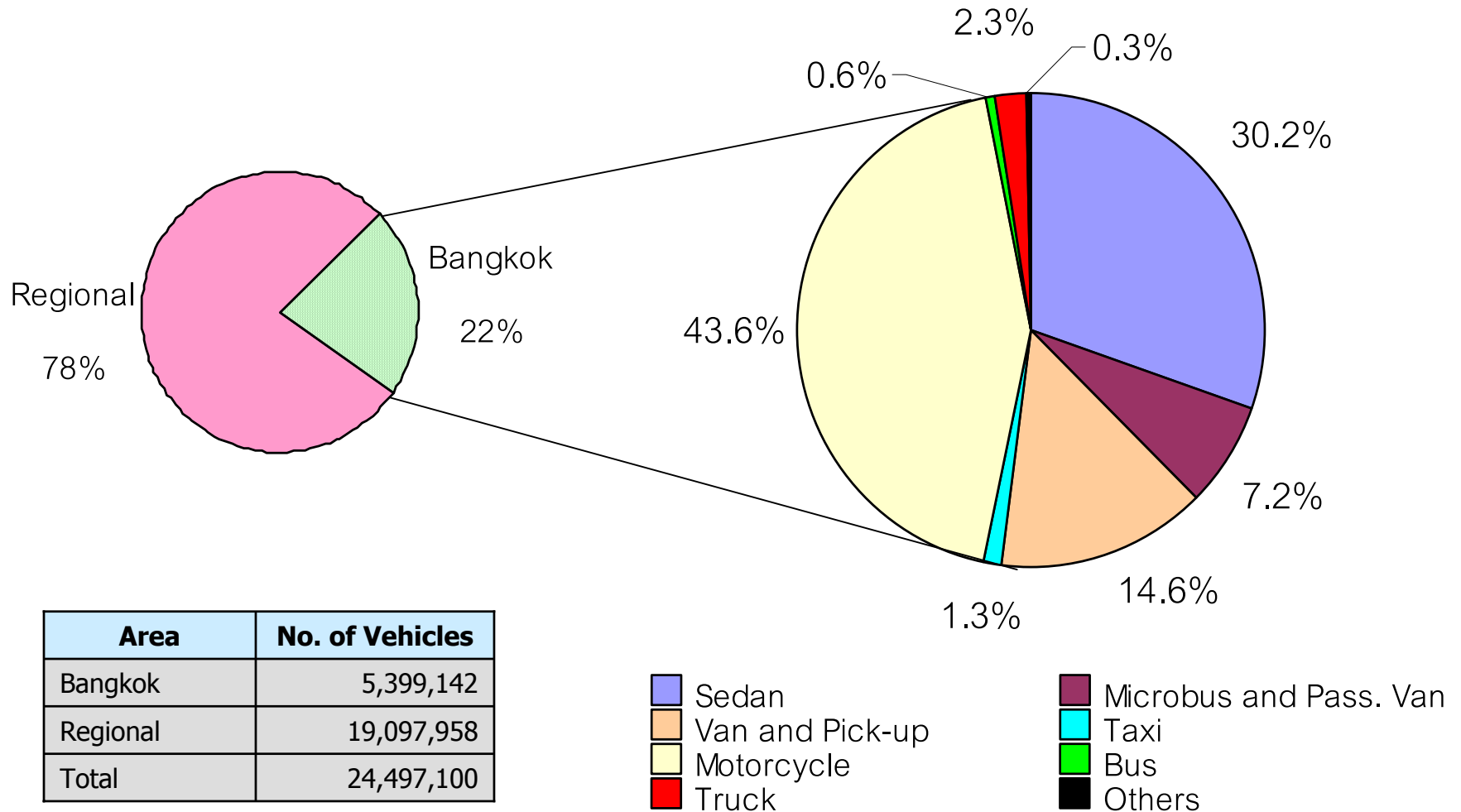
February 17, 2004



# Motor Vehicle Classification

Motor Vehicle Act 1979		Land Transport Act 1979
MV 1: Sedan	MV 9: Hotel Taxi	Fixed Route Bus
MV 2: Microbus & Pass. Van	MV 10: Tour Taxi	Non-fixed Route Bus
MV 3: Van & Pickup	MV 11: Car for Hire	Private Bus
MV 4: Motor-tricycle	MV 12: Motorcycle	Non-fixed Route Truck
MV 5: Inter-provincial Taxi	MV 13: Tractor	Private Truck
MV 6: Urban Taxi	MV 14: Road Roller	
MV 7: Fixed Route Taxi	MV 15: Farm's Vehicle	
MV 8: Motor-tricycle Taxi (Tuk Tuk)	MV 16: Automobile's Trailer	

# Vehicle Registration Number



Source: The numbers of vehicles registered in 2002, Statistic Section, DLT



# In-use Diesel Vehicles

- **Why?**

To have a **clear picture** of an actual characteristic of diesel vehicles in Bangkok

- **What data is needed?**

**Detailed information**

Registration Year → Vehicle age

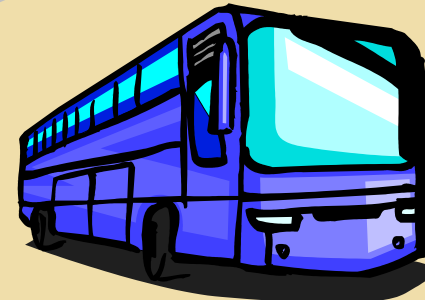
Vehicle Category → Vehicle characteristic

Brand/Model → Emission control technology

- **How?**

**DLT Database System**

# DLT Vehicle Database



Category

Fuel type

Registration Plate Number

Year & Date of registration

Color/Brand/Model

VIN/Position

Owner & User Details:  
Name/Age/Nationality/ID. No./Address

Engine Brand/Engine number/Position

Weight/Load/  
Number of seats

**ECT.**



# Problems found in Databases

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- **Incorrect data:** False inputs, Miscoded data  
→ Human Error
- **Incomplete data:**
  - Some information are left unrecorded
  - System does not recognize these incomplete data when complying
- **Data Inconsistency:** no crosschecks can lead to data misinterpretation

Different outputs of same information is generated because different codes are used  
E.g.: “EX-1001” not the same as “EX 1001”



# Diesel Vehicles in Bangkok

## Motor Vehicle Act 1979

MV 1: Sedan

MV 2: Microbus & Pass. Van

MV 3: Van & Pickup

MV 4: Motor-tricycle

MV 5: Inter-provincial Taxi

MV 6: Urban Taxi

MV 7: Fixed Route Taxi

MV 8: Motor-tricycle Taxi  
(Tuk Tuk)

MV 9: Hotel Taxi

MV 10: Tour Taxi

MV 11: Car for Hire

MV 12: Motorcycle

MV 13: Tractor

MV 14: Road Roller

MV 15: Farm's Vehicle

MV 16: Automobile's Trailer

## Land Transport Act 1979

Fixed Route Bus

Non-fixed Route Bus

Private Bus

Non-fixed Route Truck

Private Truck

Small Rural Vehicle

# Next Step

- Knowing the number of in-use diesel vehicles by category → Calculate the proper number of vehicle samples for each category
- Develop “A Sample Matrix Selection Table”

**Example** : Truck

**Model**

	AAA-	BBB-	...	YYY-	ZZZ-
1-2					
3-5					
6-10				x	
...					
...					
...					

*The number of trucks sampled from a group of “YYY-” engine model and 6-10 years old, to be tested at PCD Lab.*