

**MRSE 2573 Integrated-Occupational-
Safety-Health-and-Environment-
Management**

Case study: Road Accidents



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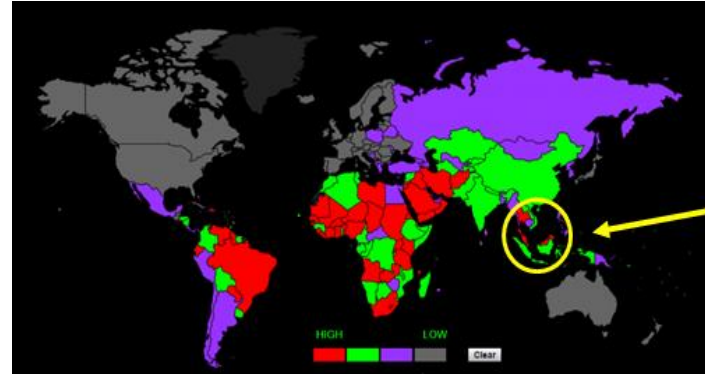


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INTRODUCTION

***Malaysia ranks 18th
in the world***

for road accident deaths

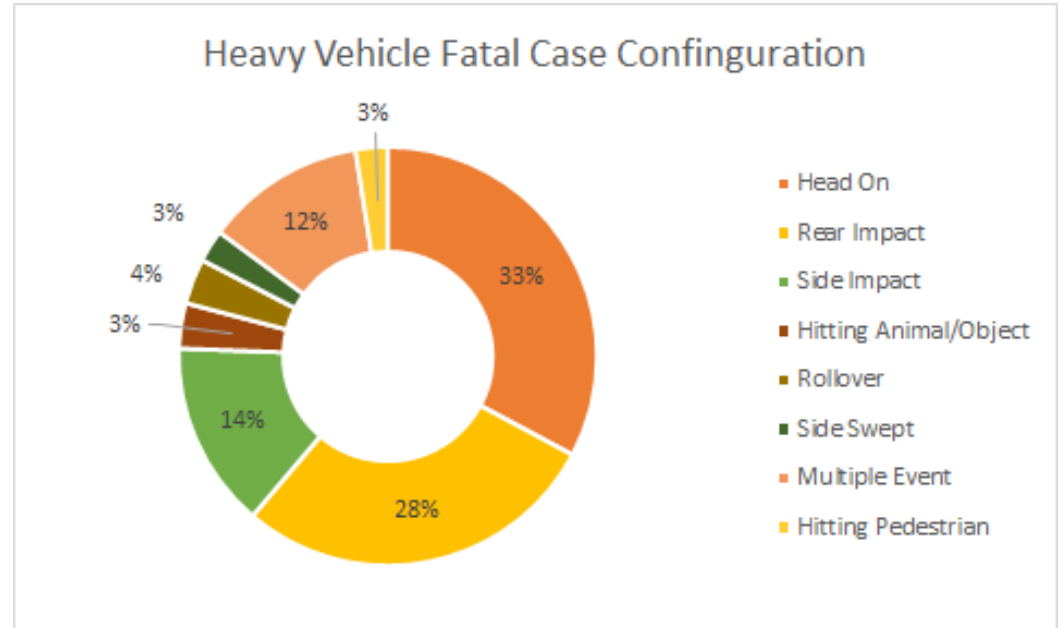


MALAYSIA

- Malaysia is no stranger to road accidents.
- In 2016, Malaysia averaged at an estimated 25 deaths per 100,000 people from road accidents alone.
- Ranked as having the 18th highest number of road traffic deaths in the world and the second highest in South East Asia.

INTRODUCTION

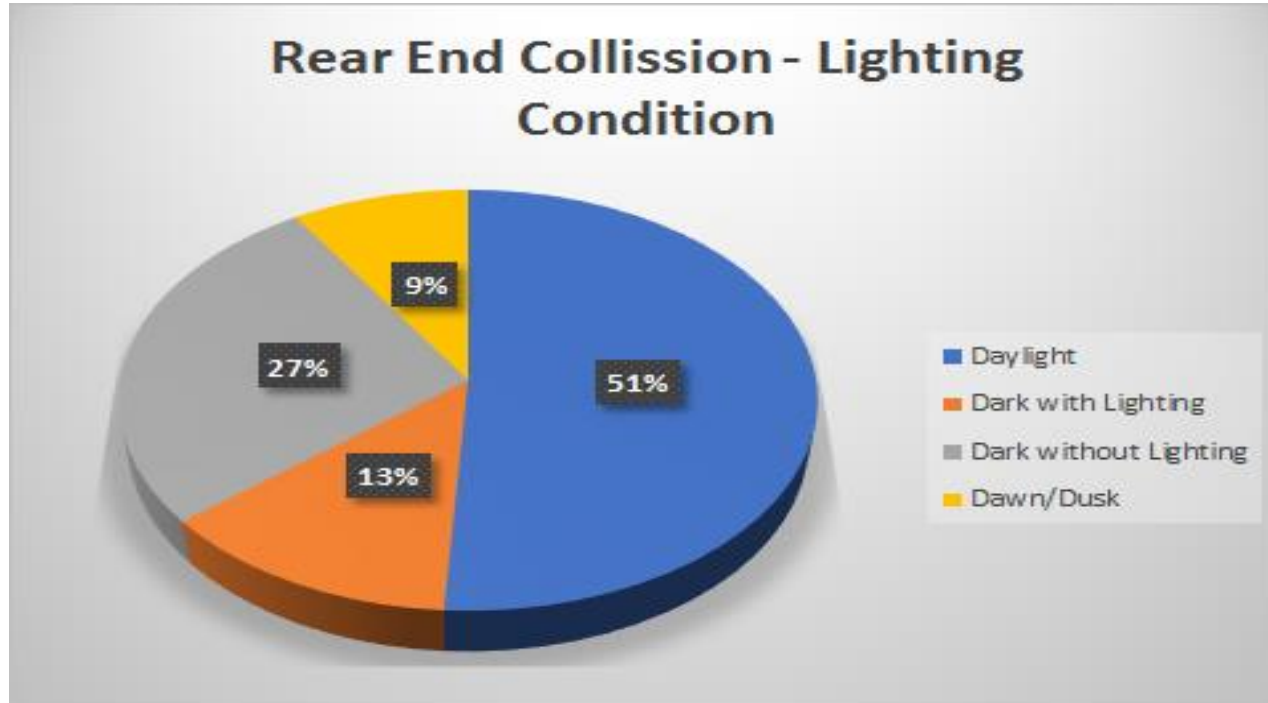
- Statistics show every year more than 6000 people are killed in road accidents in Malaysia.
- 1000 of these fatalities are between heavy vehicles with others.
- Highest fatal cases are due to Head On and Rear Impact accidents.



INTRODUCTION



INTRODUCTION



HISTORY OF SOME OF THE DEADLIEST ROAD ACCIDENTS IN MALAYSIA



22 August, 2013

An **express bus with 53 occupants** from 6 different countries rammed a divider while negotiating a steep slope, and plunged into a 60-metre ravine near Genting Highlands, on route to KL. A **staggering thirty-seven people, mostly foreigners, died at the scene** – making the accident the deadliest road mishap in Malaysian history. An investigation later revealed that the bus, which had **exceeded its maximum capacity of 44 passengers**, had been placed on a blacklist by the Road Transport Department (JPJ) well in advance of its fatal journey.

HISTORY OF SOME OF THE DEADLIEST ROAD ACCIDENTS IN MALAYSIA

20 December, 2010



A **double-decker tour bus** packed with Thai holidaymakers returning to KL from Cameron Highlands lost control while negotiating a sharp bend, smashed violently into a divider and went airborne, somersaulted and crashed upside-down in a ditch. The impact was so great that the roof was sheared off, and some passengers were flung through the air, landing many metres away. **Of the 37 passengers on board, only 10 survived with severe injuries.** Road safety experts later questioned the wisdom behind **using a double-decker bus for steep, uphill travel, which they judged highly unsuitable.**

HISTORY OF SOME OF THE DEADLIEST ROAD ACCIDENTS IN MALAYSIA



28 February, 1990

The notorious Karak highway was the scene of one of the grisliest road accidents in Malaysian history. A **multiple-vehicle pile-up** occurred when a fast-moving passenger bus collided with a tanker lorry, 6 cars, 2 taxis, a truck and a number of Federal Reserve Unit (FRU) riot police vehicles. **Seventeen people, including 11 FRU personnel, were killed, and many more injured.** Thousands of vehicles heading to and from KL were tangled in a resulting jam of epic proportions which lasted many hours.

VIDEOS OF ROAD ACCIDENTS IN MALAYSIA

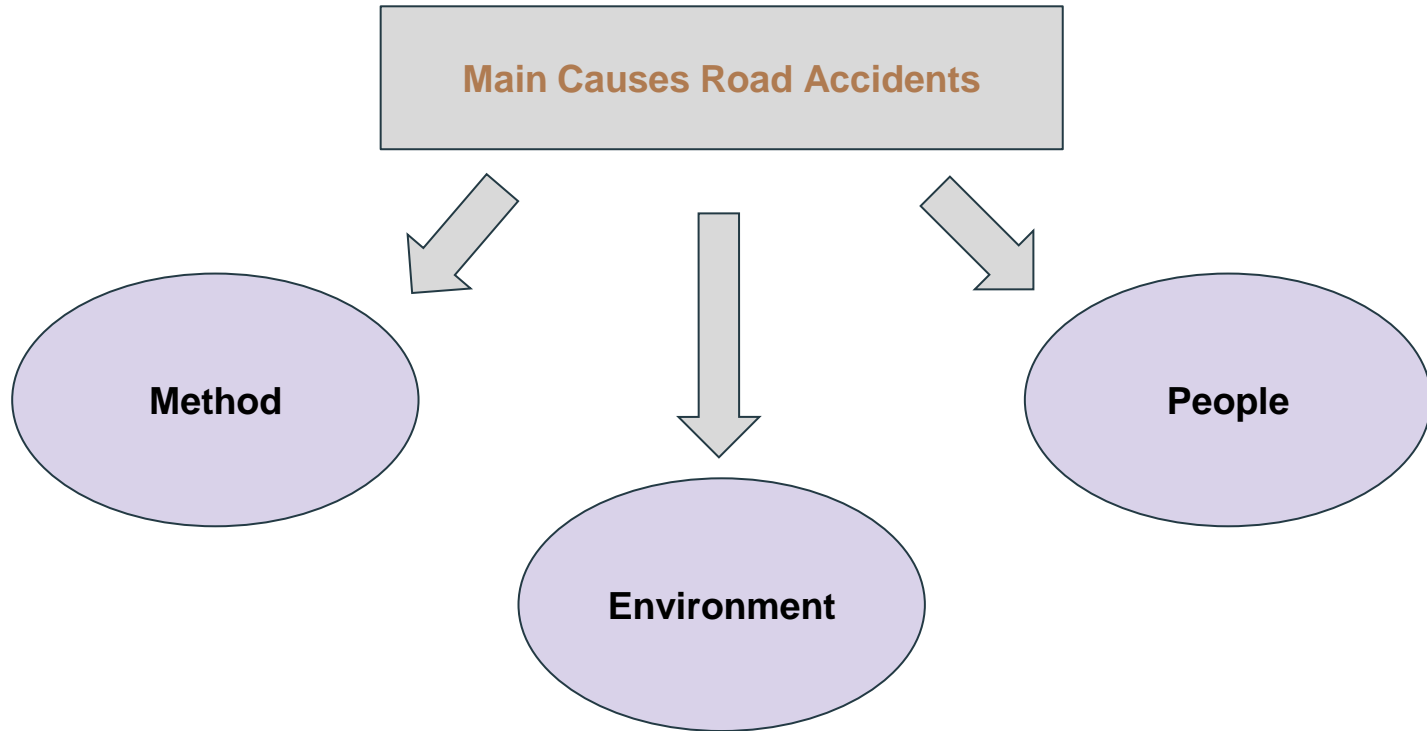
https://www.youtube.com/watch?v=WIJgQ_ANSMo



https://www.youtube.com/watch?v=HKBnp2dT_VI

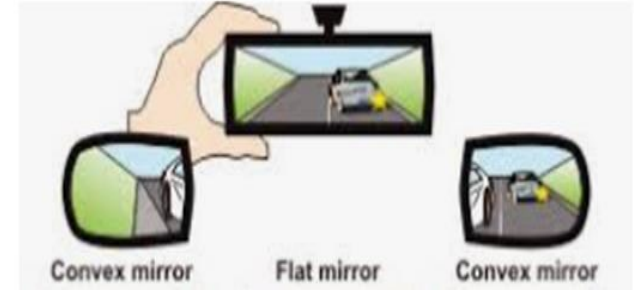


CAUSES OF ROAD ACCIDENTS



Methods

- Not adjusting mirrors/seats
- Not "Aiming High" in steering
- Not utilizing a spotter when backing
- Not checking behind vehicle before backing
- No full enforcement in traffic rules
- Overload transporting



Environment

- Slippery surface
- Reduced lanes
- Heavy traffic
- Construction area
- No proper / damaged safety signage



People

- Hurrying / Rushing
- Inattention to construction
- Moving forward before stopping/looking
- Inattention while backing
- Tired
- Eating/drunk driving
- Using cell phone/radio
- Not getting clear picture of surroundings
- Driving too fast / over speeding
- Not apply seat belt/helmet
- Ignoring safety precaution and traffic rules

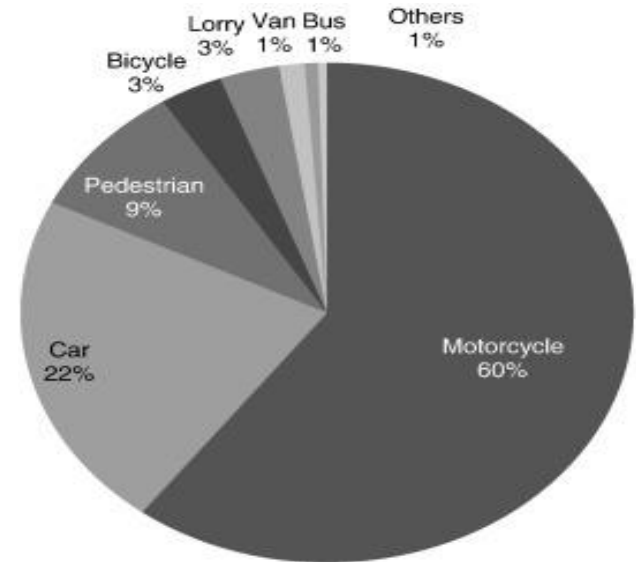


Implications of the road accidents






1. Death rates in Malaysia is **3rd highest** globally, following China and India.
2. The estimated population of approximately 30 million Malaysians, about **7,000 to 8,000 people** of the population die on the roads every year.
3. A total of **80.6%** of the road accidents are caused by **Human Error**
4. Most of the deaths (62.7%) involved motorcyclists.
5. Economic loss due to road accident is more the millions. Such include:
 - Loss of earnings,
 - Reduced productivity,
 - Increased medical bills,
 - Loss of family cohesion, and
 - Damage to property.

There are also psychological effects. They include:

- Loss of trust from the community,
- Loss in family structure,
- Depression,
- Trauma,
- Fear, and
- A feeling of guiltiness.



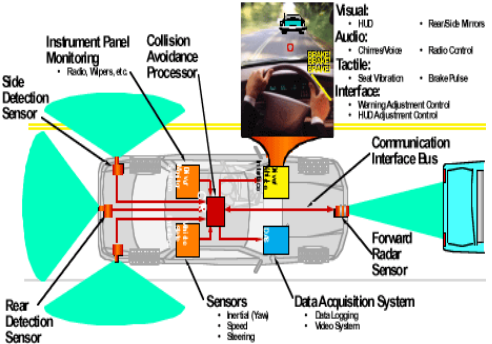
Solutions to prevent road accidents

	Built up areas*	Single carriageway	Dual carriageway	Motorway
	30	60	70	70
	30	50	60	60
	30	50	60	70
	30	50	60	70
	30	50	60	60

- STRICT ENFORCEMENT OF SPEED LIMITS



- INSTALL ROAD SPEED LIMITER IN ALL HEAVY VEHICLE



- ENQUIP COLLISION AVOIDANCE SENSOR FOR VEHICLE

Solutions to prevent road accidents



- *IMPROVED DAYLIGHT LIKE LIGHTING IN THE MAIN ROAD*



- *VEHICLE EQUIPMENT WITH CONSPICUITY MARKING*



- *PROVIDE REST AREA (RNR) IN ALL HIGHWAYS OR IMPORTANCE ROAD*

Conclusion



- Safety First..... Because accidents last.
- Safety: expect the unexpected.
- Chance takers are accident makers.
- Hug your kids at home, but belt them in the car!
- The essence of road safety is to live healthy
- Safety is key, It is Up to YOU and ME!



Thank you