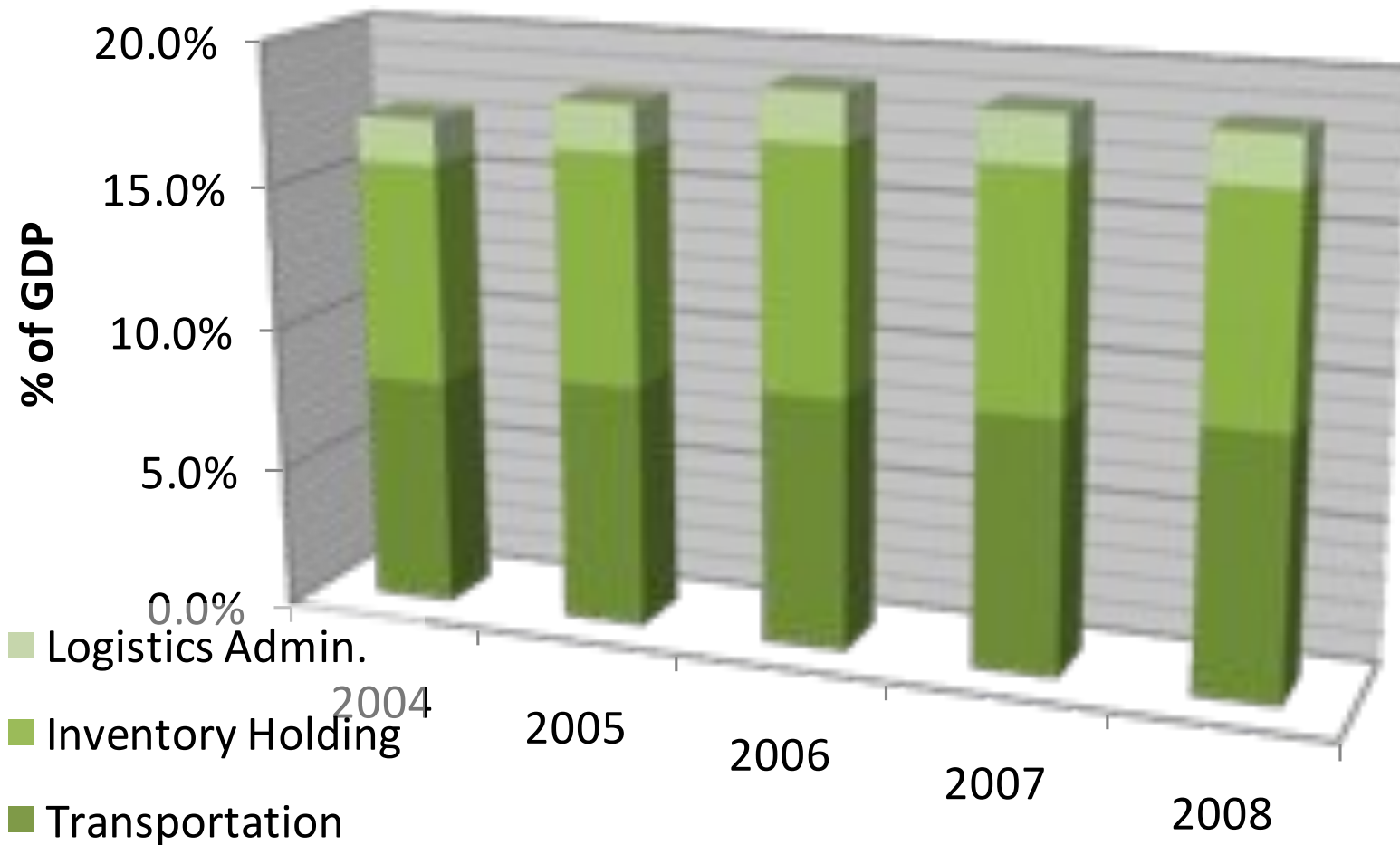




# **Opportunities and Barriers for Low Carbon Freight Transport in Thailand**

**Naeeda Crishna-Morgado**  
GMS Environment Operations Center (GMS-EOC),  
Bangkok, Thailand

## Logistics costs in Thailand / GDP

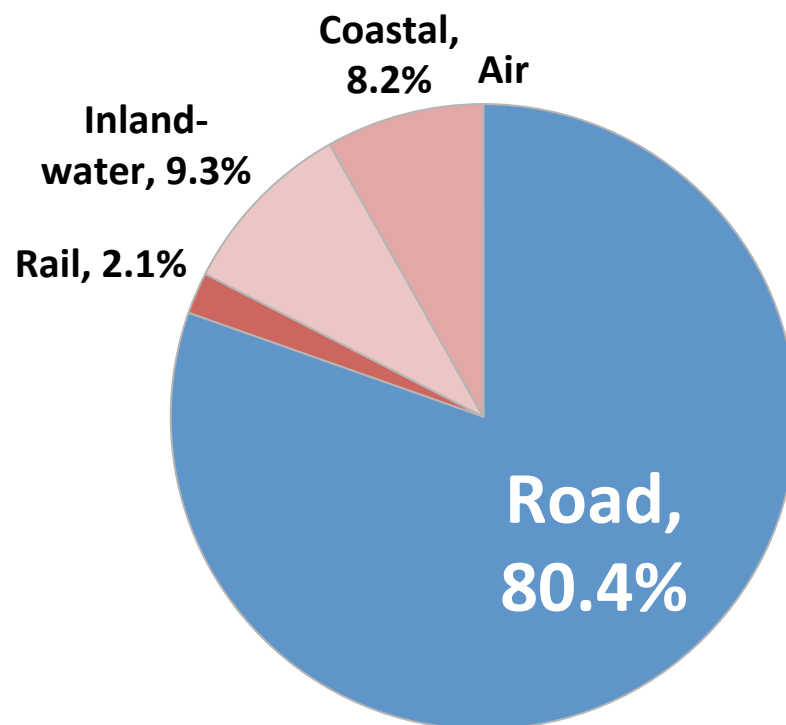


Source: NESDB, 2010

- Modal split favours road transport

## Percentage of freight transported by mode in 2011

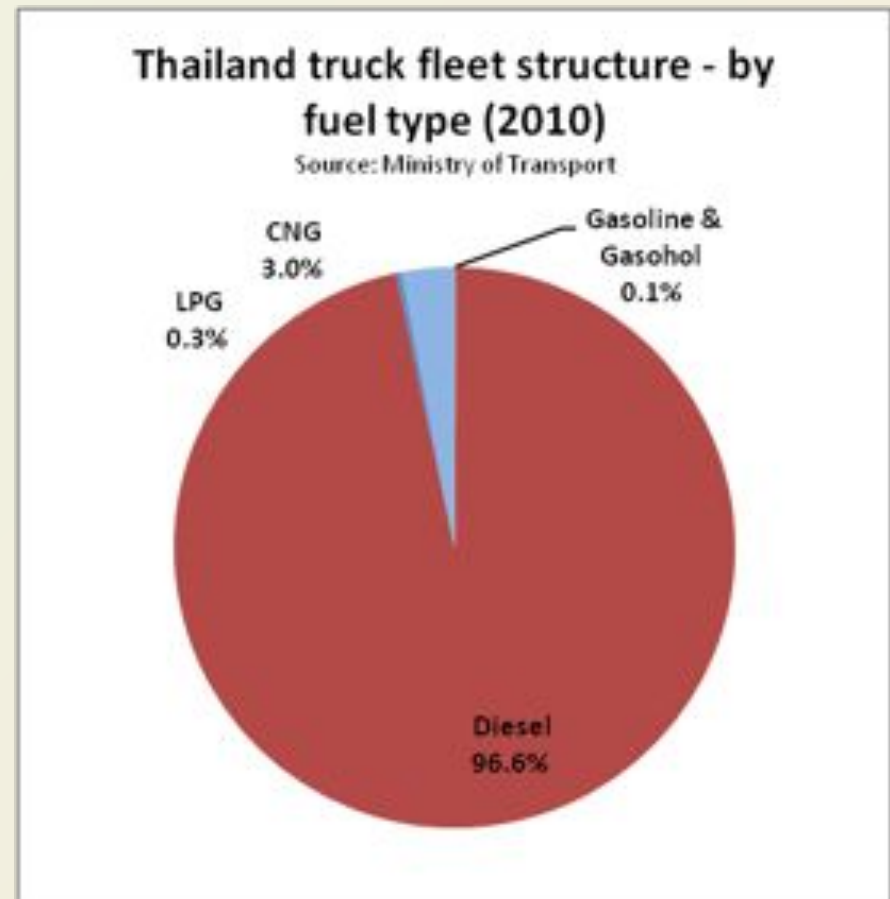
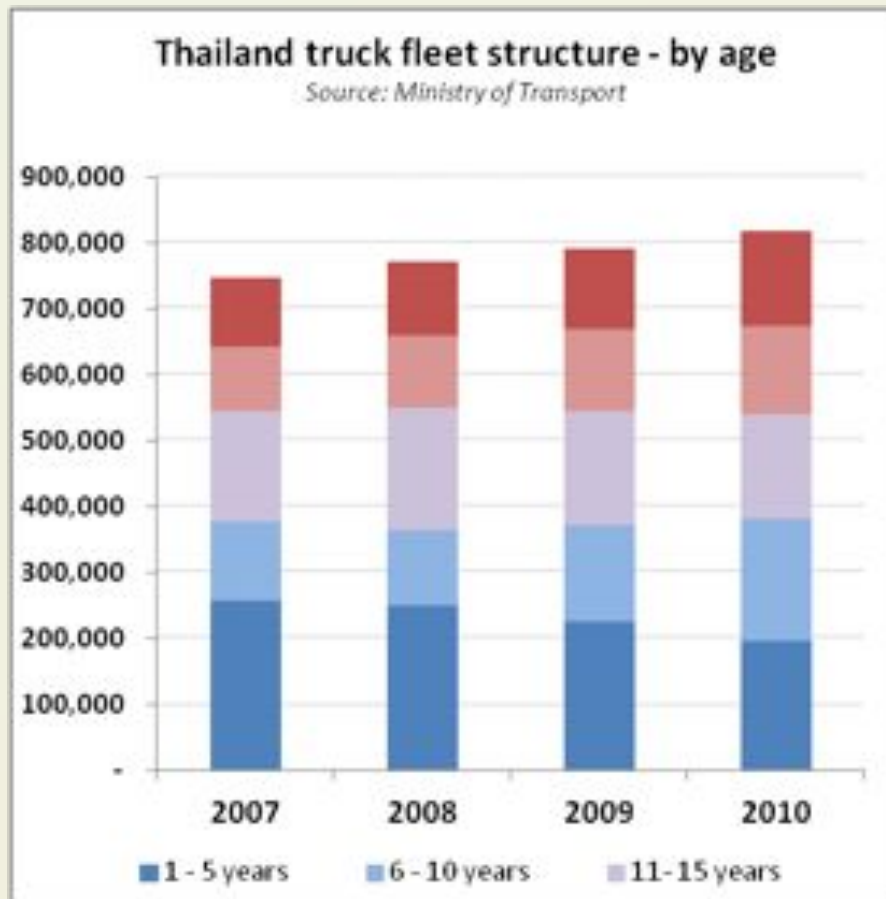
*Source: Ministry of Transport*



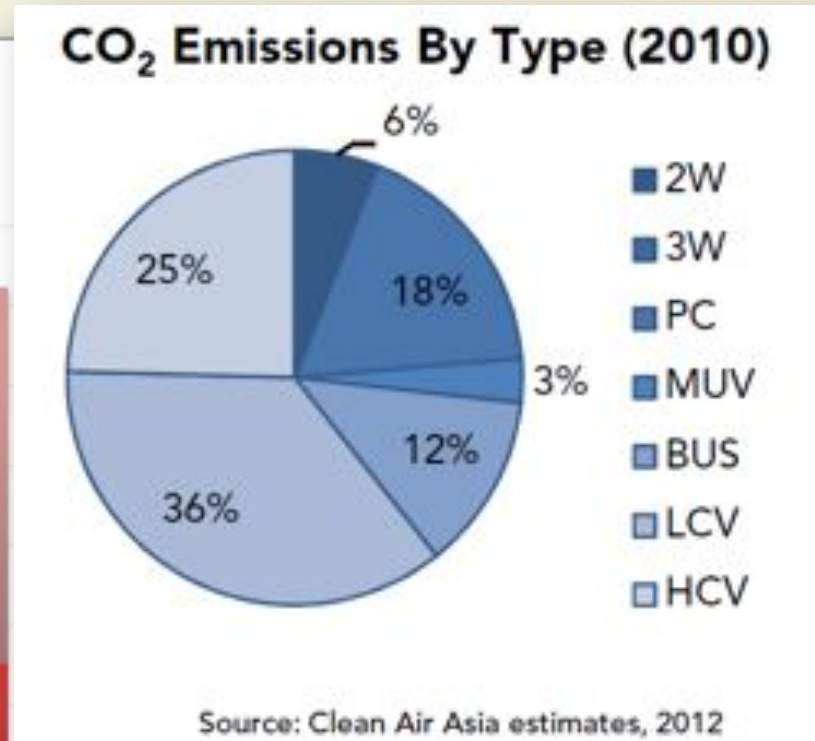
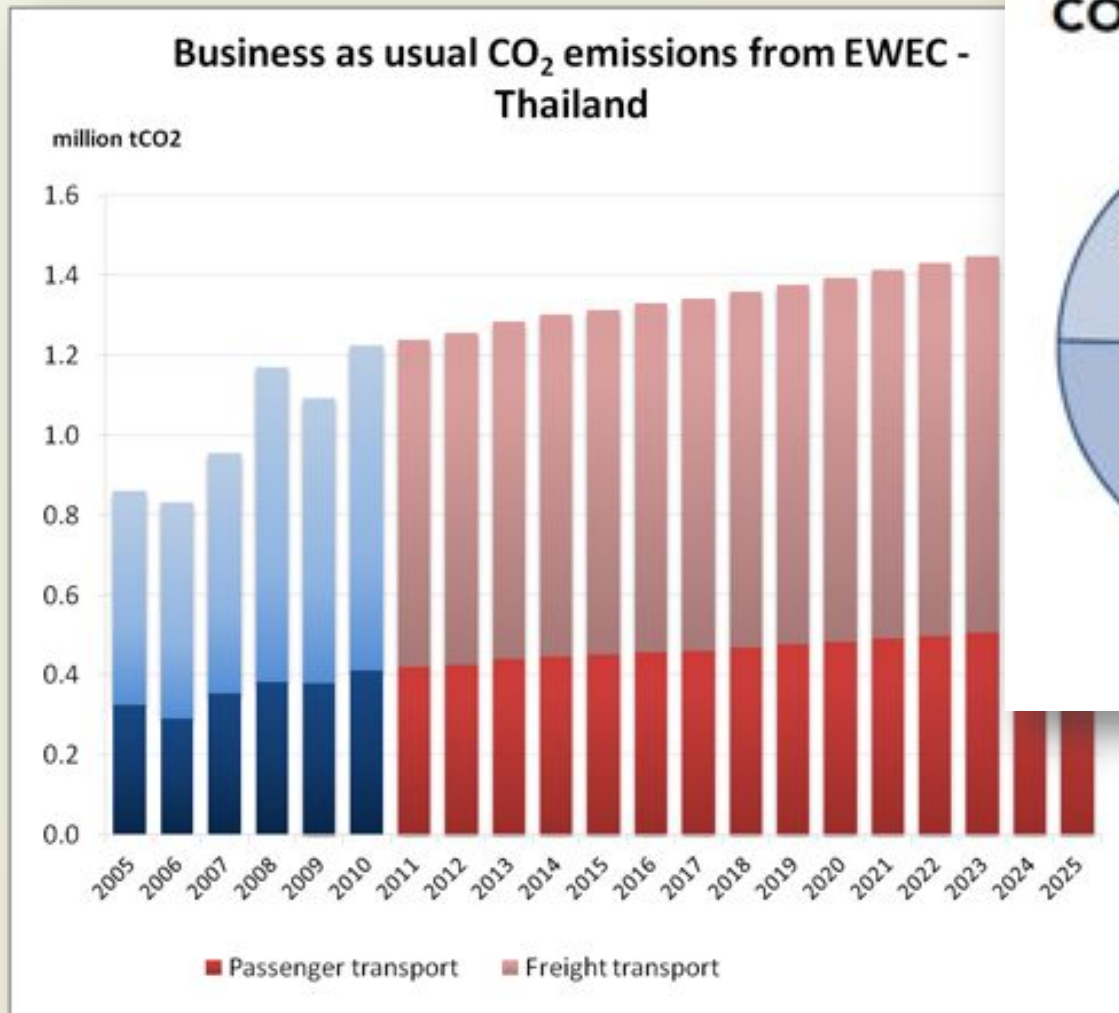
- Empty backhaul and empty running



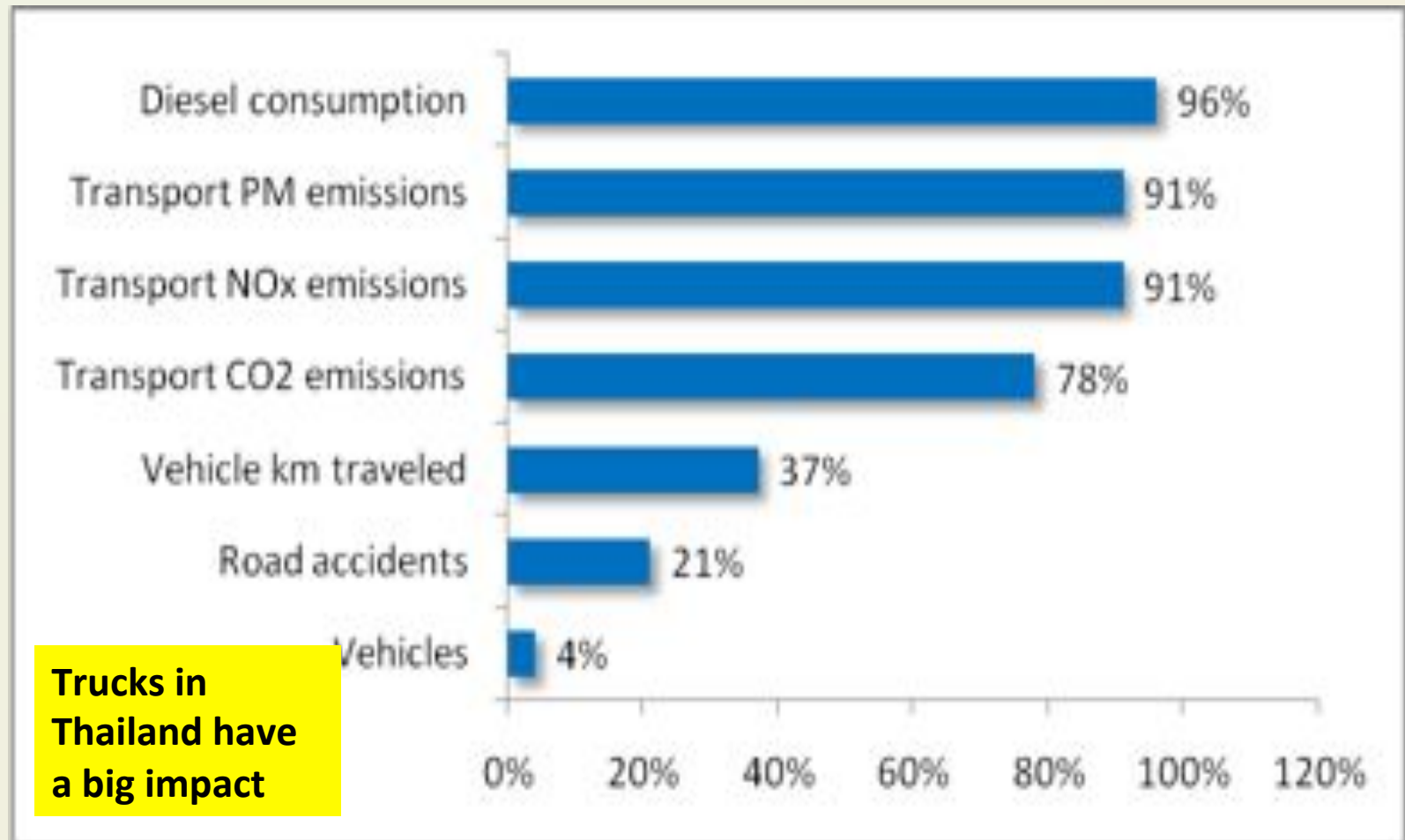
- Aging vehicle fleet with heavy reliance on fossil fuels



- Carbon footprint of freight transport

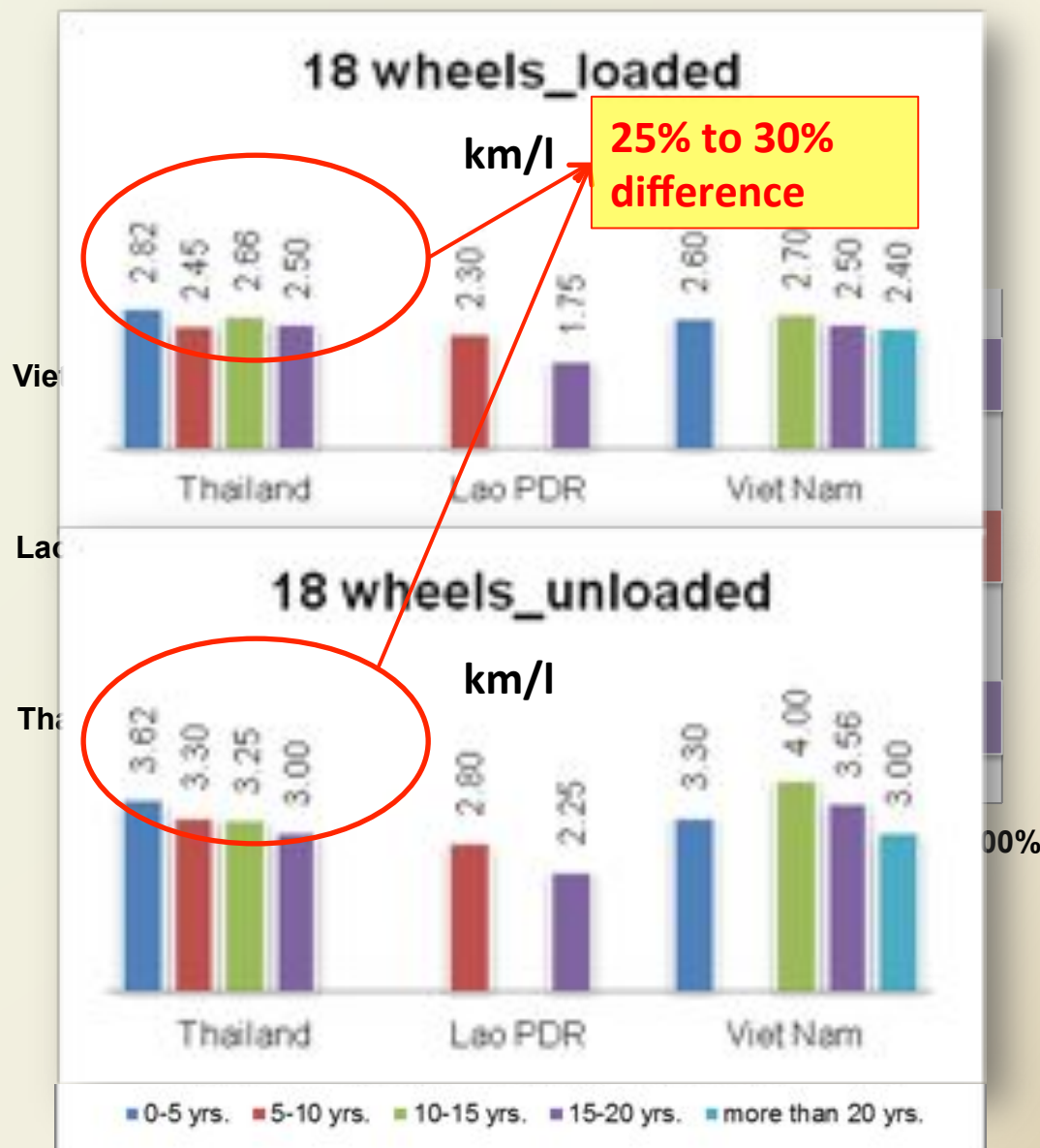


- Road freight vehicles have a big impact



Source: Clean Air Asia, 2012

- Fragmentation of industry
- Empty running (25% to 50% of trips)
- Loading / overloading
- Driver behavior





- Comprehensive overall policy framework...
  - Strong framework policies on energy efficiency and transport e.g. energy conservation plan, draft fuel efficiency standards, ‘eco-car’ initiative, emissions standards, CNG vehicles
  - New strategy: Sustainable Transport Masterplan for Thailand
- ...but...
  - Most policies focus on passenger, rather than freight transport
  - Lack of policies or regulation to encourage manufacturers to develop high efficiency vehicles
  - Uncertainty about supporting policies such as price and infrastructure for alternative fuels
  - Supporting strategies of eco-driving policy have not been considered



- Strong institutions with a focus on freight...
  - Logistics association (TIFFA), Business and industry associations (FTI), regional transport associations and federation (LTFT)
  - Government agencies within MoT – OTP, DLT
- ...resulting in ongoing initiatives
  - Federation of Thai Industries and Ministry of Energy Transport Incentive Program
  - Department of Land Transport Q-Mark program and Thai Truck Center

- Aim: To develop / test institutional and financial mechanisms to deploy green freight measures
- Remove policy barriers and / or incentivize uptake of new technologies
- Catalyze national government and private sector appetite for green freight
- Establish a mechanism for coordination between government agencies and other stakeholders
- Identify NAMA potential for freight



**Eco-driving training and curriculum development**



**Green technologies and low cost financing**

1. Technology testing
2. Piloting uptake of technologies through financial models



**Logistics management capacity building**

Load matching, roll-out of ICT systems for SMEs

- Modal shift
- Alternative fuel policies and programs
- Vehicle technologies to increase efficiency of in-use fleet
- Fuel standards for new vehicles
- Scrappage scheme to reduce old vehicles
- Logistics management roll-out to reduce empty backhaul
- Driver behavior
- Potential for offset projects (Transport and Forestry)?



# THANK YOU!

**Naeeda Crishna-Morgado, Carbon Footprint Specialist,**  
[naeeda@gms-eoc.org](mailto:naeeda@gms-eoc.org)

**Pakorn Aniwatkulchai, Transport and Climate Change Research Associate**  
[pakorn@gms-eoc.org](mailto:pakorn@gms-eoc.org)