

Automotive Summit 2015

June 24

Bangkok, Thailand

# Towards Sustainable Transport

Tali Trigg – Team Leader

**The ASEAN – German Technical Cooperation Programme  
“Cities, Environment and Transport”**

**Transport and Climate Change**



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# ASEAN – German Technical Cooperation Transport and Climate Change



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## About GIZ



- GIZ's purpose is to promote international cooperation for sustainable development and education work.
- As a 100% federally owned, public-benefit enterprise, we support the German Government in achieving its objectives in the field of international cooperation for sustainable development.
- Our annual turnover is about 2 billion Euro.



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## About GIZ



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- In addition, CIM – which is jointly run by GIZ and the German Federal Employment Agency – places experts with local employers. At the end of 2012, almost 542 integrated experts had employment contracts with organisations and companies in the field, while 454 returning experts were receiving financial support and advice.





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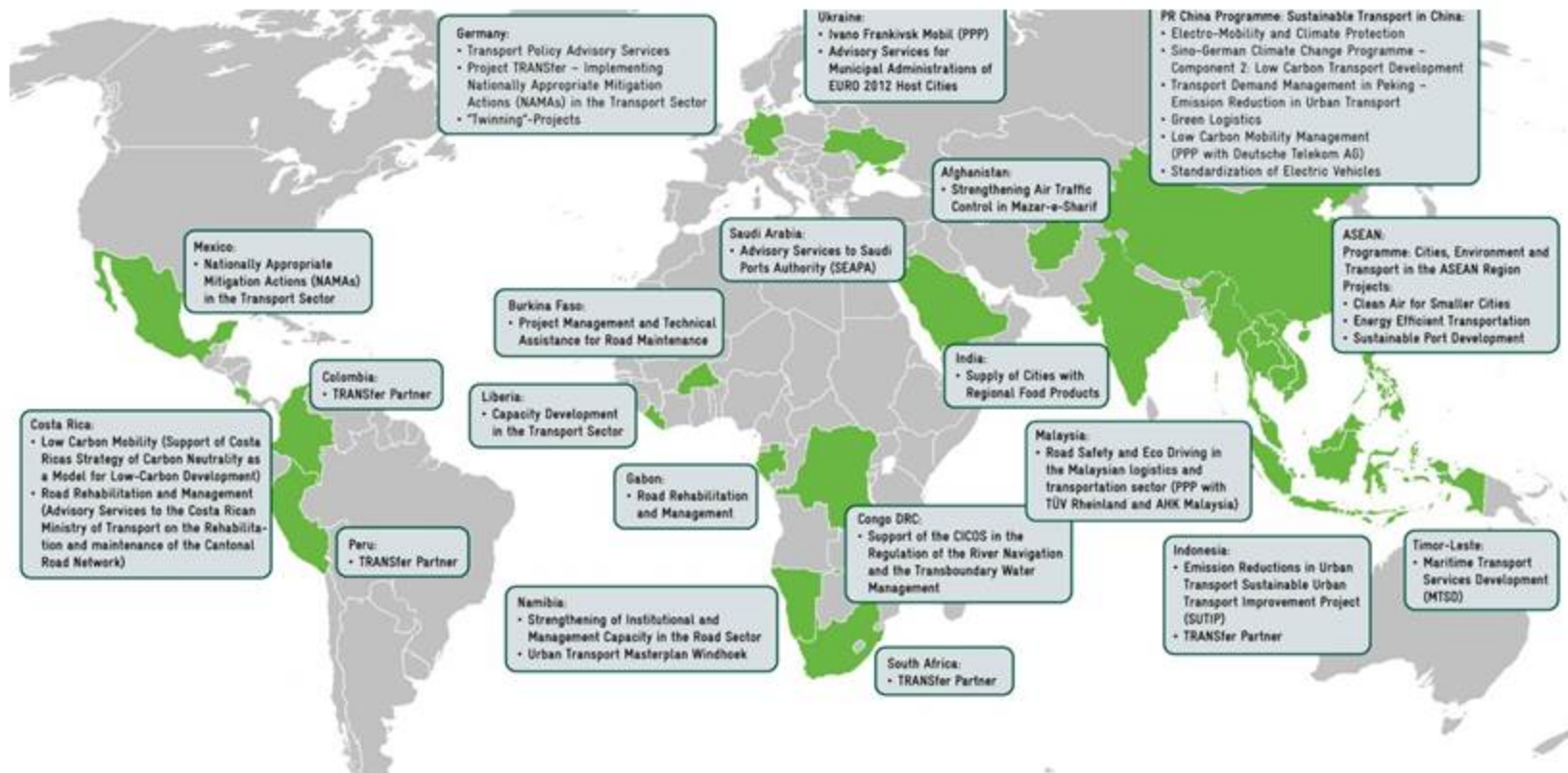


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## About GIZ

### Current Activities in the Transport and Mobility Sector





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## About GIZ

### Our Service Lines

#### Supporting Project Implementation



#### Sharing Experiences and Best Practices



#### Developing and Disseminating Resources





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Zusammenarbeit

## Transport and Climate Change

### Overview

Project objective:

Develop, implement and monitor strategies and action plans towards the improvement of energy efficiency and GHG emissions

Focus areas:







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**Rationale: local and global benefits go hand in hand**

Sustainable transport:

- Improves energy efficiency
- Benefits economy
- Increase road safety
- Improves air quality
- Reduces congestion
- Increase in liveability
- Reduces greenhouse gas emissions

**-> Climate change mitigation as a co-benefit of sustainable transport policy**





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Zusammenarbeit

## Main challenges and opportunities

In EE&CC in the land transport sector in ASEAN

- Governance: no legislation
- Regional differences: development, environmental considerations, political diversity
- Process of integration with transport/connectivity as key topic
- Increasing awareness of environmental issues





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## Five key activities

Carried out in TCC phase I (2013 – 2015)

**Green Freight and Logistics  
Workshop Singapore**

- Putting GFL on the political agenda, develop interest, and a comprehensive approach to action plans

**Fuel Economy Expert  
meeting Colombo**

- Create interest for regional approach to fuel economy in ASEAN, peer-to-peer learning

**Expert Workshop on  
Regional Strategy, Pattaya**

- Create strong basis for a regional strategy

**Inputs into Sustainable  
Transport Goal, LTWG**

- ST as key strategy for post-2015, provide concrete options for goals, actions and milestones.

**Transport NAMA workshop  
Ha Long**

- Peer to peer learning, boosting interest, motivation and knowledge for developing t-NAMAs



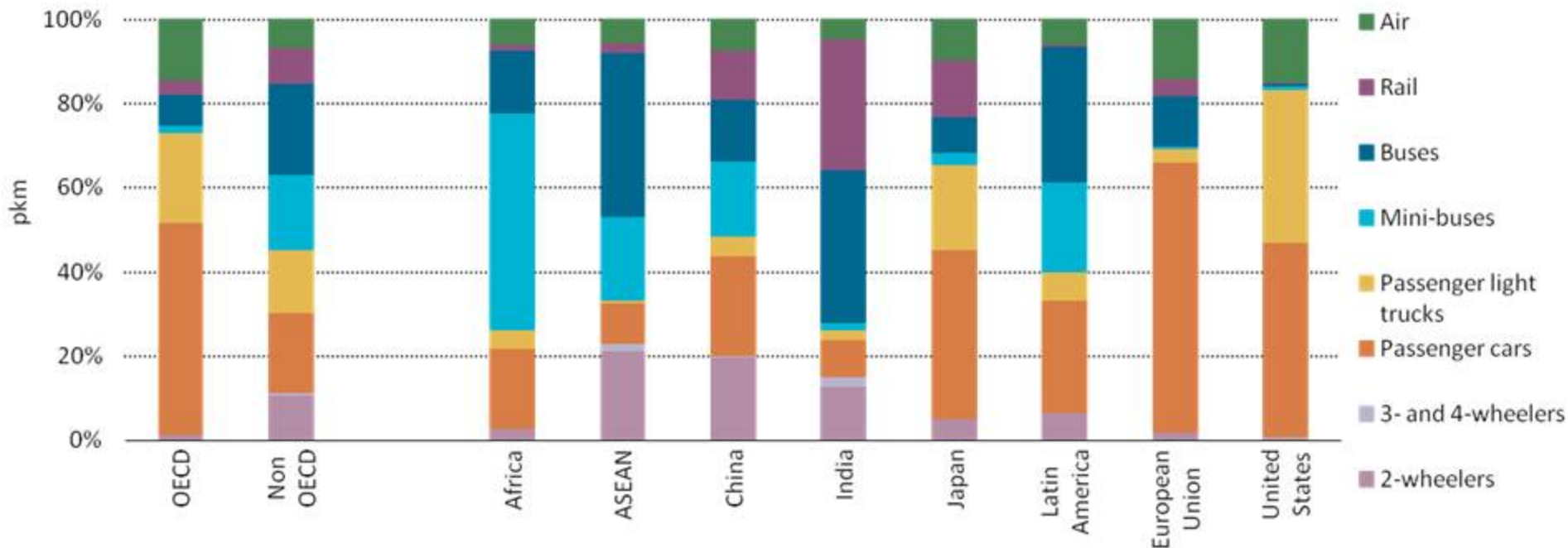
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## World's mobility habits are diverse

Most regions and countries increasingly relying on energy intensive transportation modes -> Avoid/Shift/Improve strategy needed





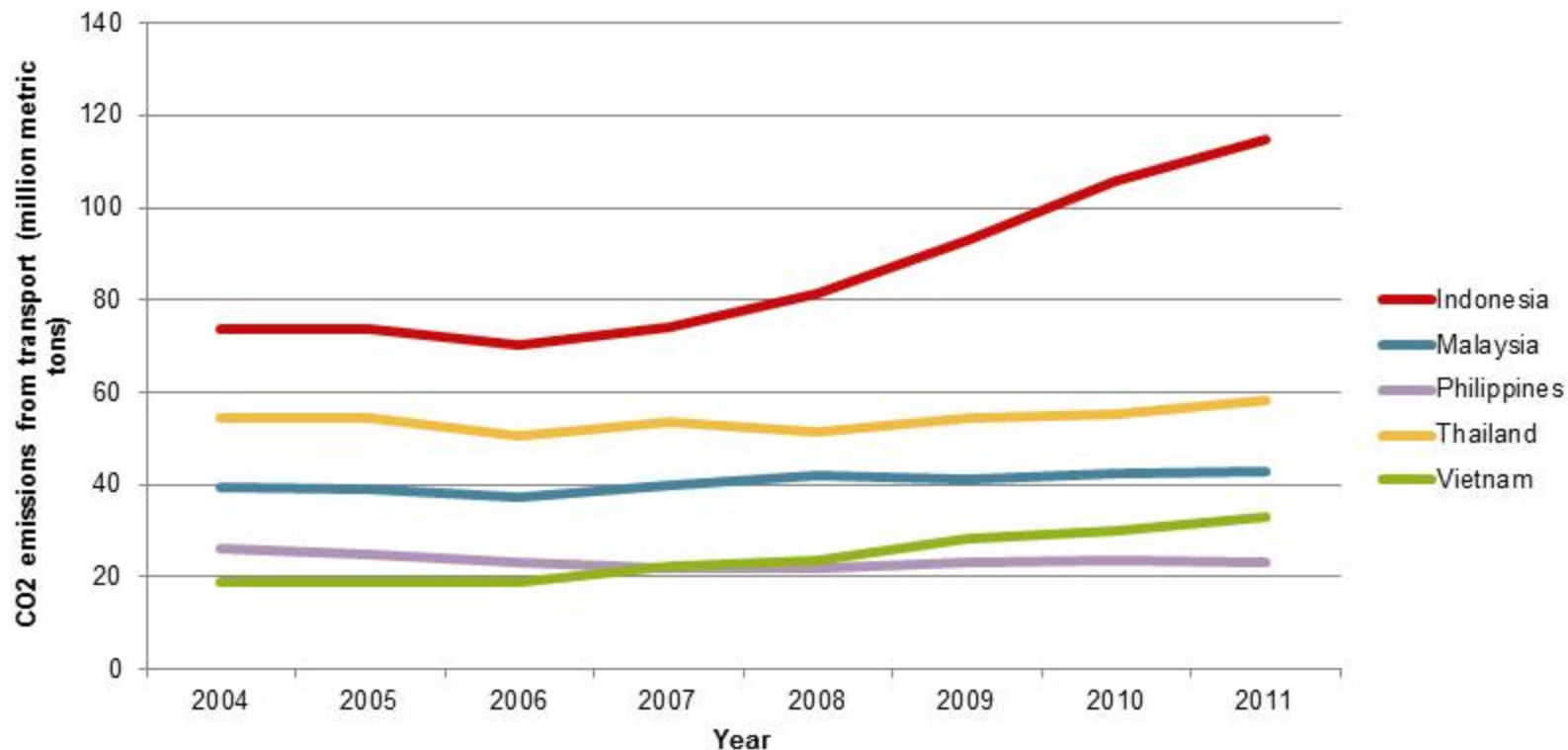
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## CO<sub>2</sub> emissions from transport

From 2004 to 2011 in TCC partner countries



Source: World Bank Institute (2015)





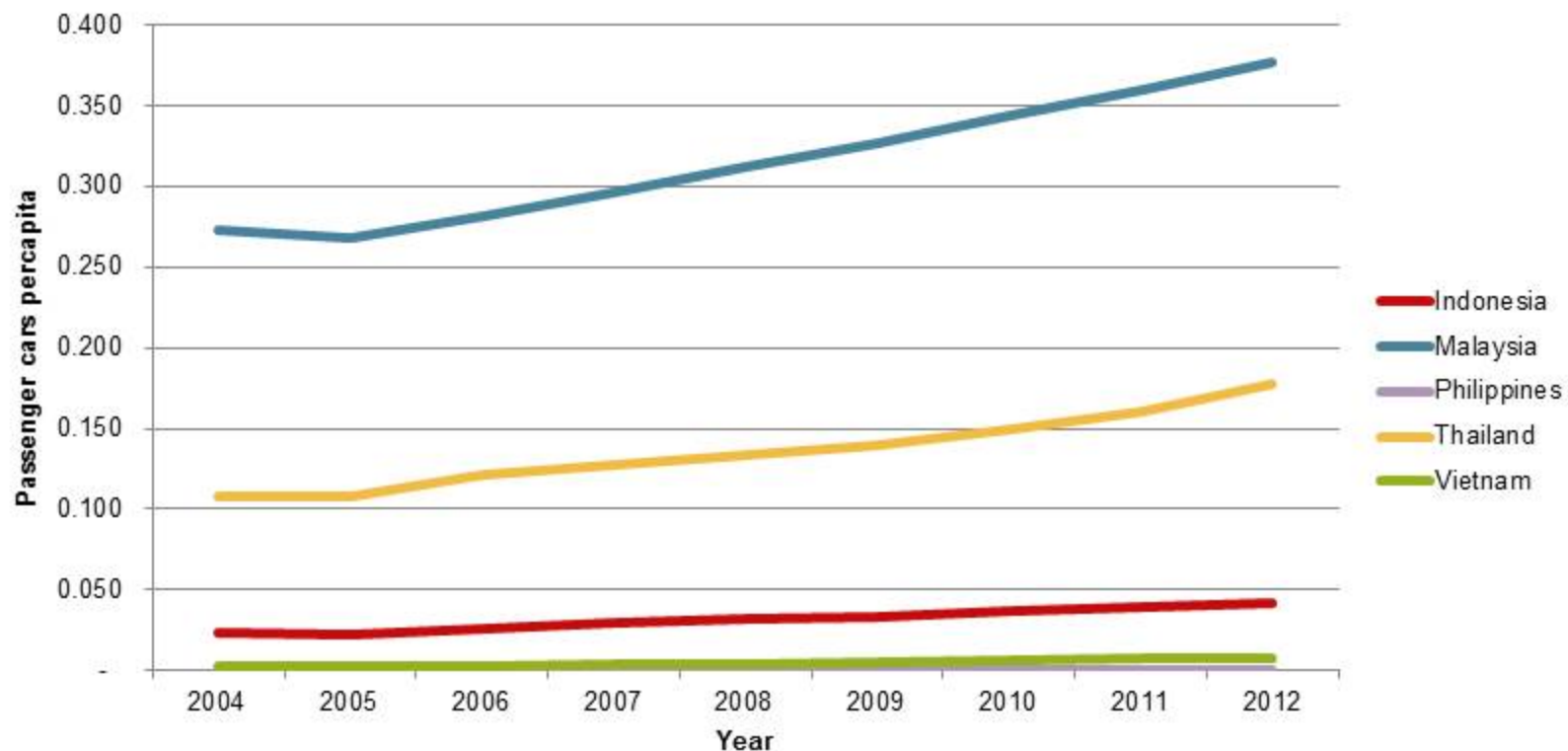
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## Motorisation

Passenger cars per capita in TCC partner countries from 2004 to 2012



Source: ASEAN Statistics (2014)



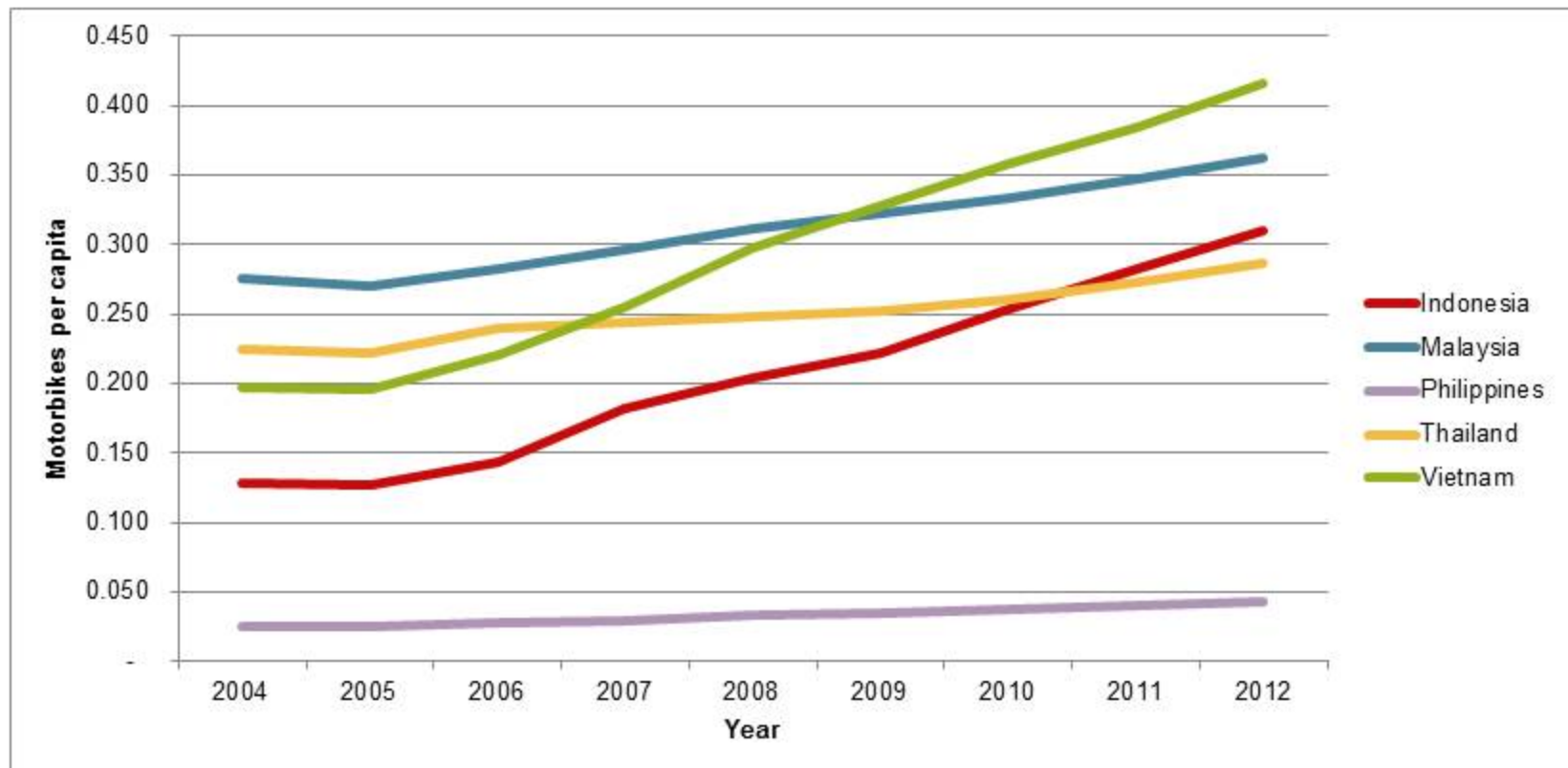
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## Motorisation

Motorbikes per capita in TCC partner countries from 2004 to 2012



Source: ASEAN Statistics (2014)



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Rio de Janeiro, 1993



Xangai, 1993

(sem metrô)





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Source: ITDP



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Glötz-Richter 2010

**... before introduction of clean vehicles...**





Glötz-Richter 2010

***...after introduction of clean vehicles...***

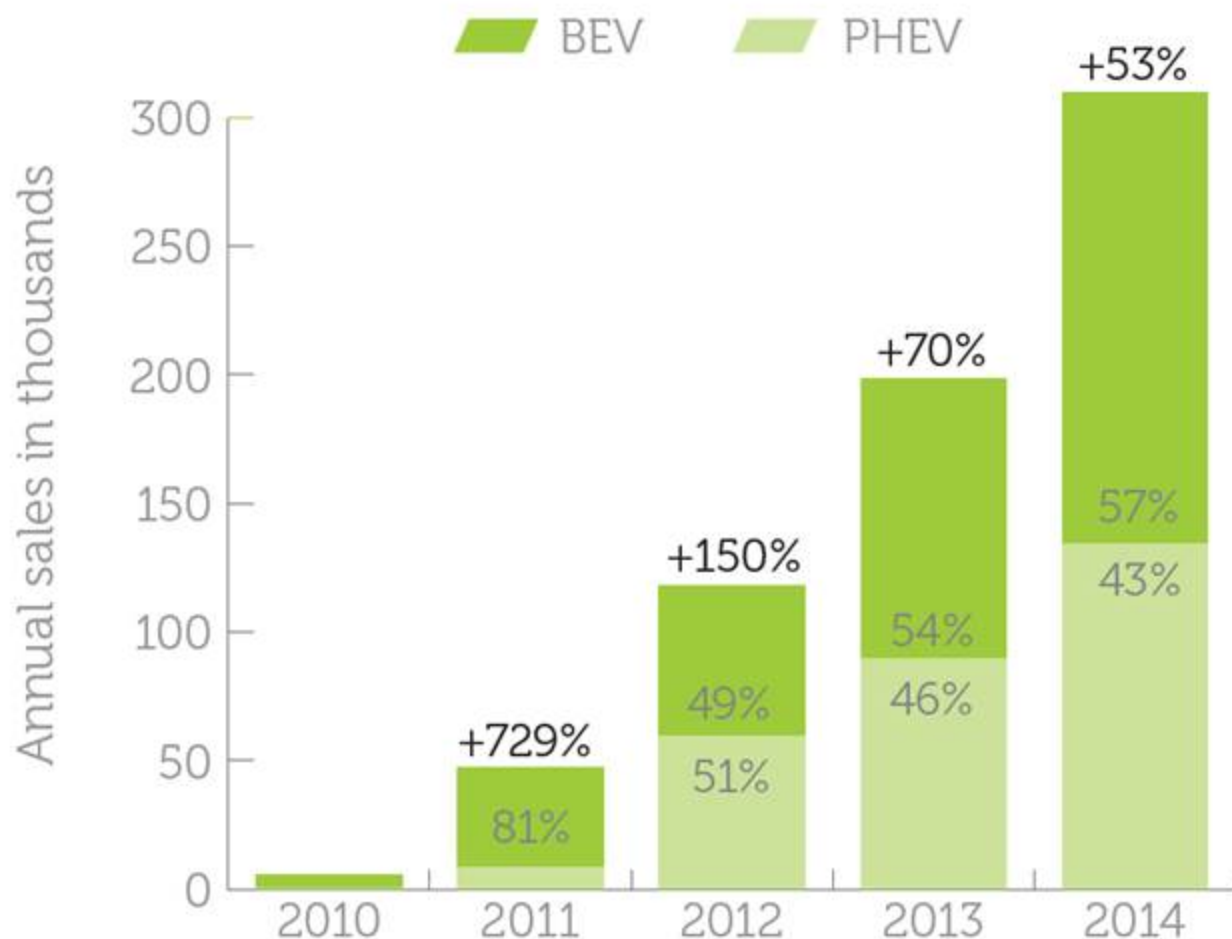


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## Global EV sales 2010- 2014



***EV sales more than doubled between 2011-2012, but are still far from the necessary 2020 interim target***



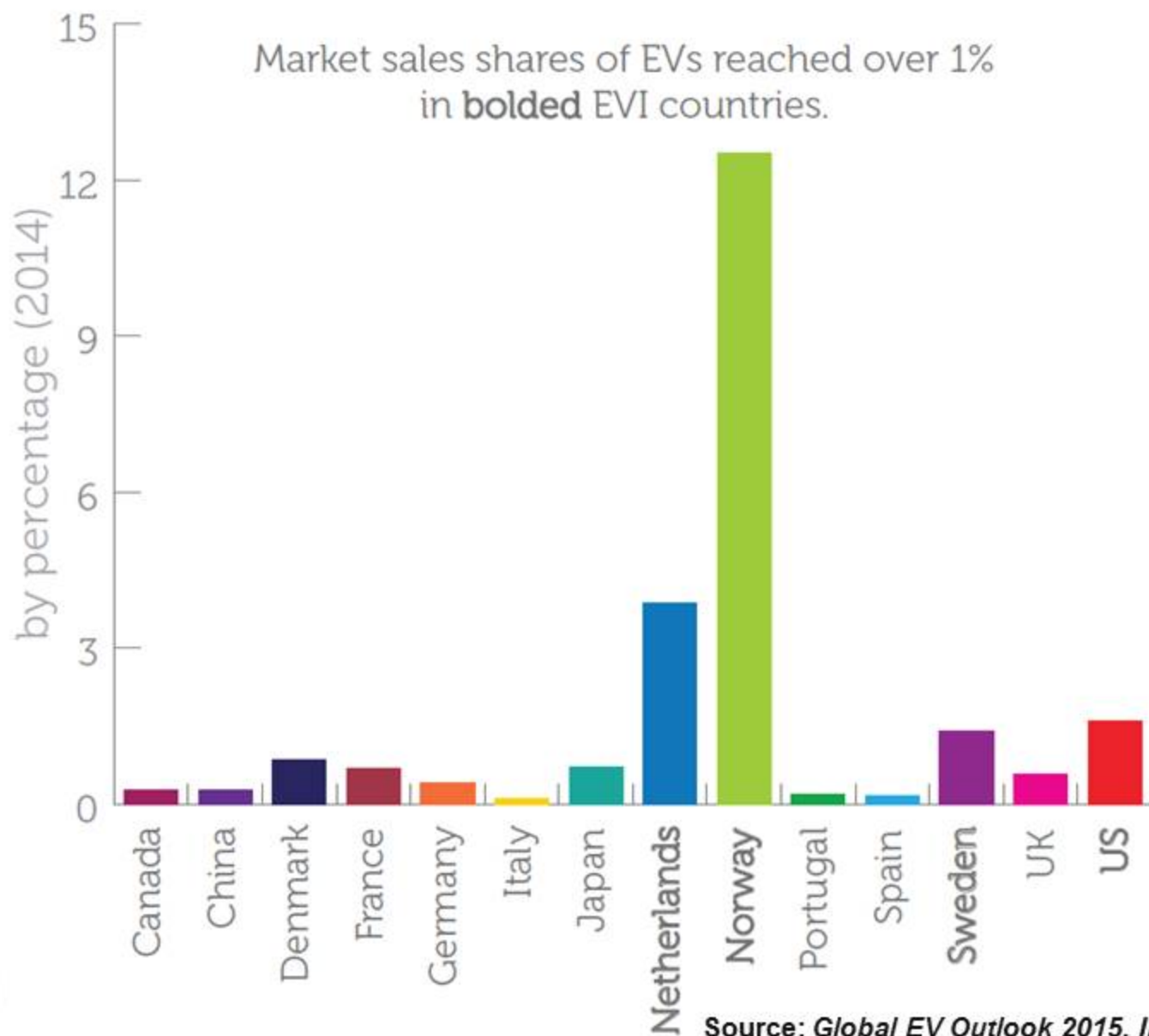
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## EV market shares in 2014





# spotlight on China

**230 MILLION** e-bikes



**83,000** e-cars

**36,500** e-buses





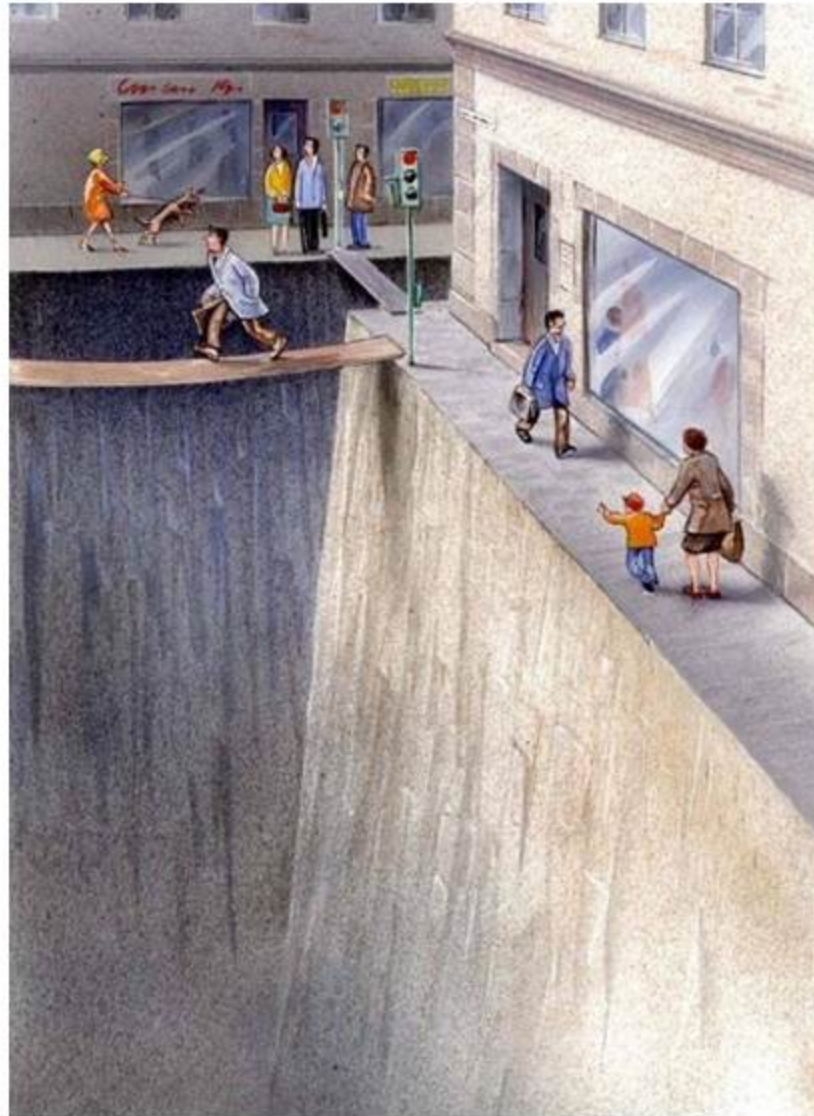
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**Roads and  
human beings**



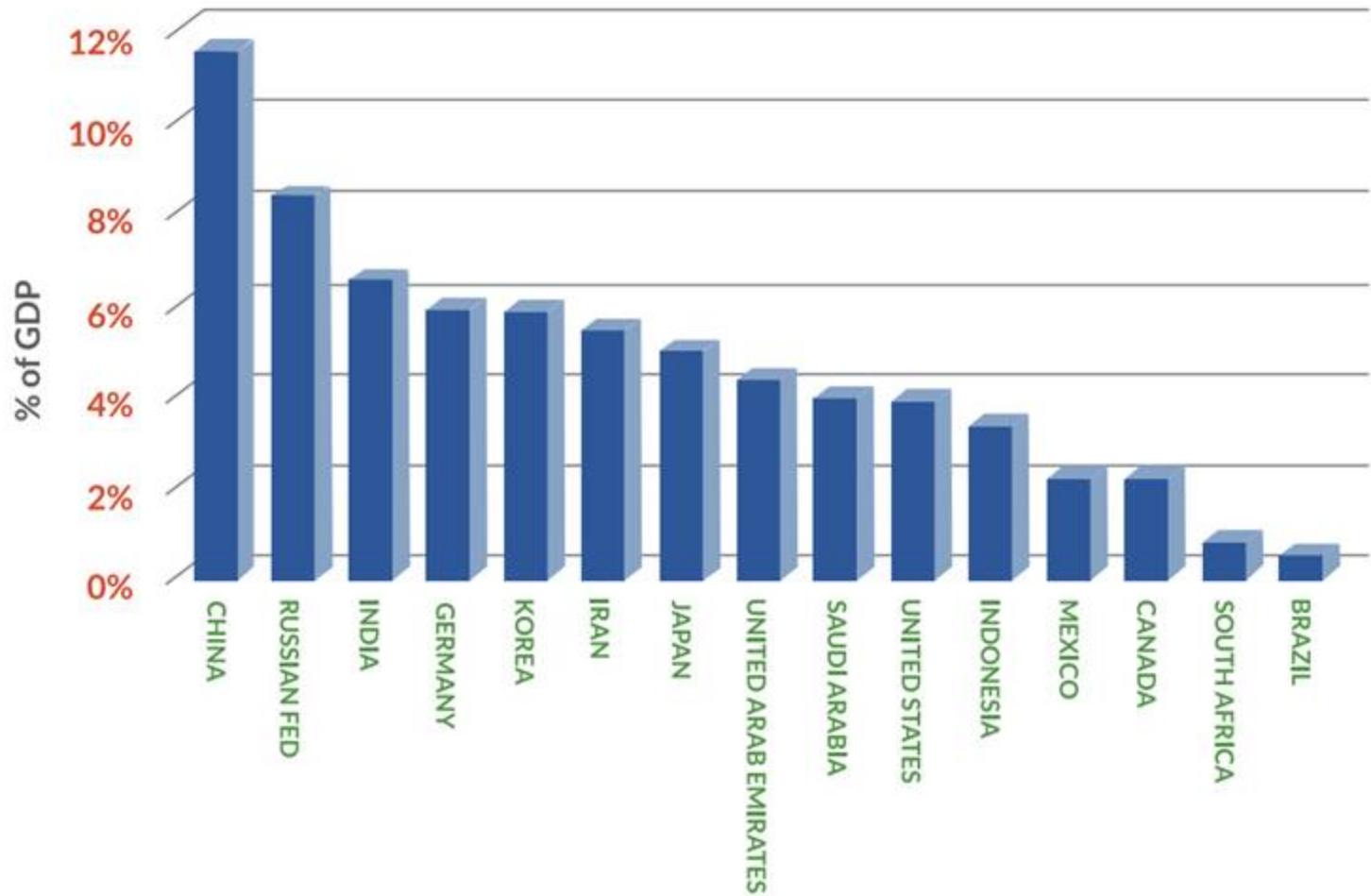


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## Cost of mortality form outdoor air pollution (2010)



- Cost of mortality from outdoor PM 2.5 exposure as % of GDP (median estimates), 2010, 15 largest CO<sub>2</sub> emitters. Source: The New Climate Economy, 2014.
- Traffic jams cost Beijing alone cost \$11.3b per year, not including health costs.





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## Transport and Climate Change



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## Conclusions

- Without policy interventions oil use and related CO<sub>2</sub> emissions worldwide could double by 2050
- We can change this picture dramatically and cut transport CO<sub>2</sub> below current levels via a combination of
  - Strong efficiency improvements in fuel economy and adoption of alternatives fuels
  - Rapid uptake of advanced technology vehicles (e.g., EVs, FCVs), but avoid silver bullet bias
  - Integrated land-use planning (TOD & NMT) and shifting to more efficient modes of transportation (buses and rail)
- For all vehicles, the two key questions are:
  - Where and how are you producing the fuel? (including leakage and lifecycle impacts)
  - What is the necessary infrastructure needed, and who will pay for its installation, and especially O&M?



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## Thank you!

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