



# VIETNAM TRAFFIC SAFETY FOR 2 WHEELERS: CHALLENGES AND STRATEGIES

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# Content

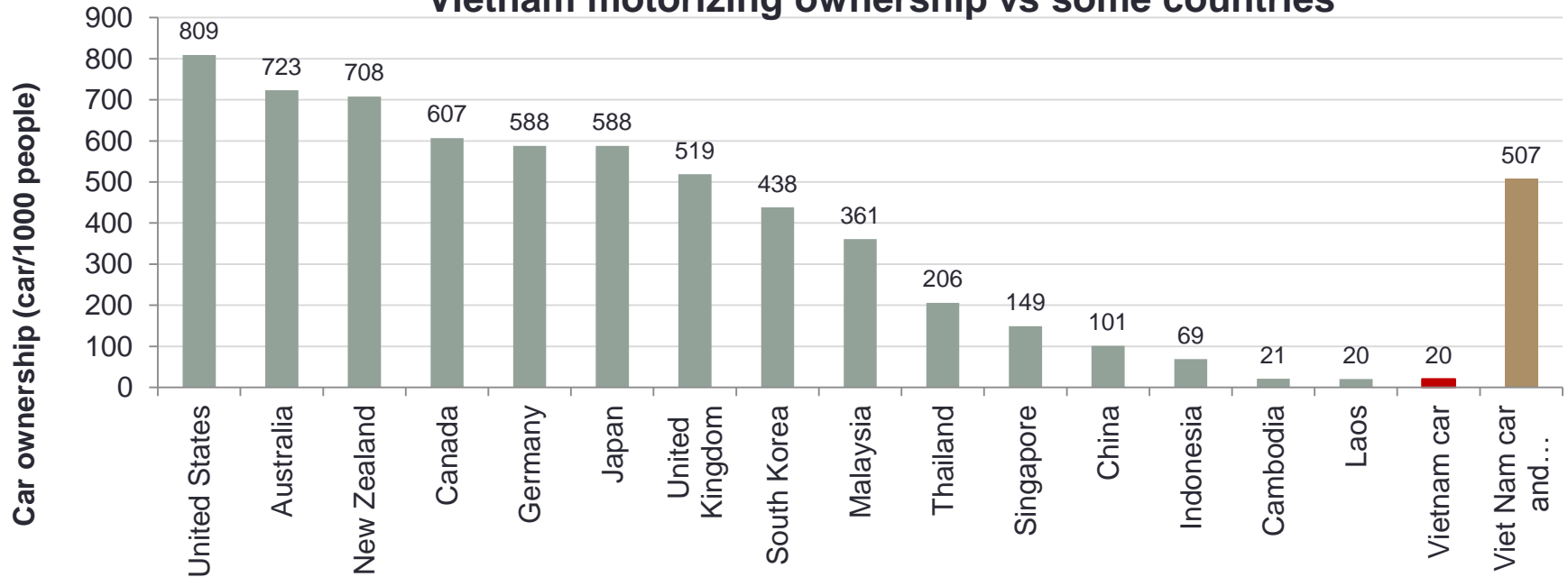
- Vietnam Demographic-Society and Transportation System
- Traffic safety in Vietnam
- Strategies and Measures for 2 wheelers and electrical bikes in Vietnam traffic up to 2020,
- Q&A

# Vietnam Economic Conditions, Demographic-Society, and Environment

- **Economic:**
- Stable growth at high rate (6% p.a – 2000-2014) and will continue in the future (Govt.'s target > 6% p.a., 2015-2020)
- Successful in poverty alleviation (Percentage of households with income of under national poverty line 2005/2013 = 22% / 7,8%)
- GDP: 2000 USD per capital
- **Demographic and Society**
- Fast and high risk of uncontrolled urbanization by illegal migration [Urban population 19% (1986) ->25% (2002) ->34% (2012)].
- Gradually increasing of social gaps and conflicts;
- **Environment**
- Declining air quality in major cities: motorized traffic is the main polluter;
- Increasing energy consumption and CO2 emissions (25.8%/year , 1990-2005)

# Motorization in Vietnam

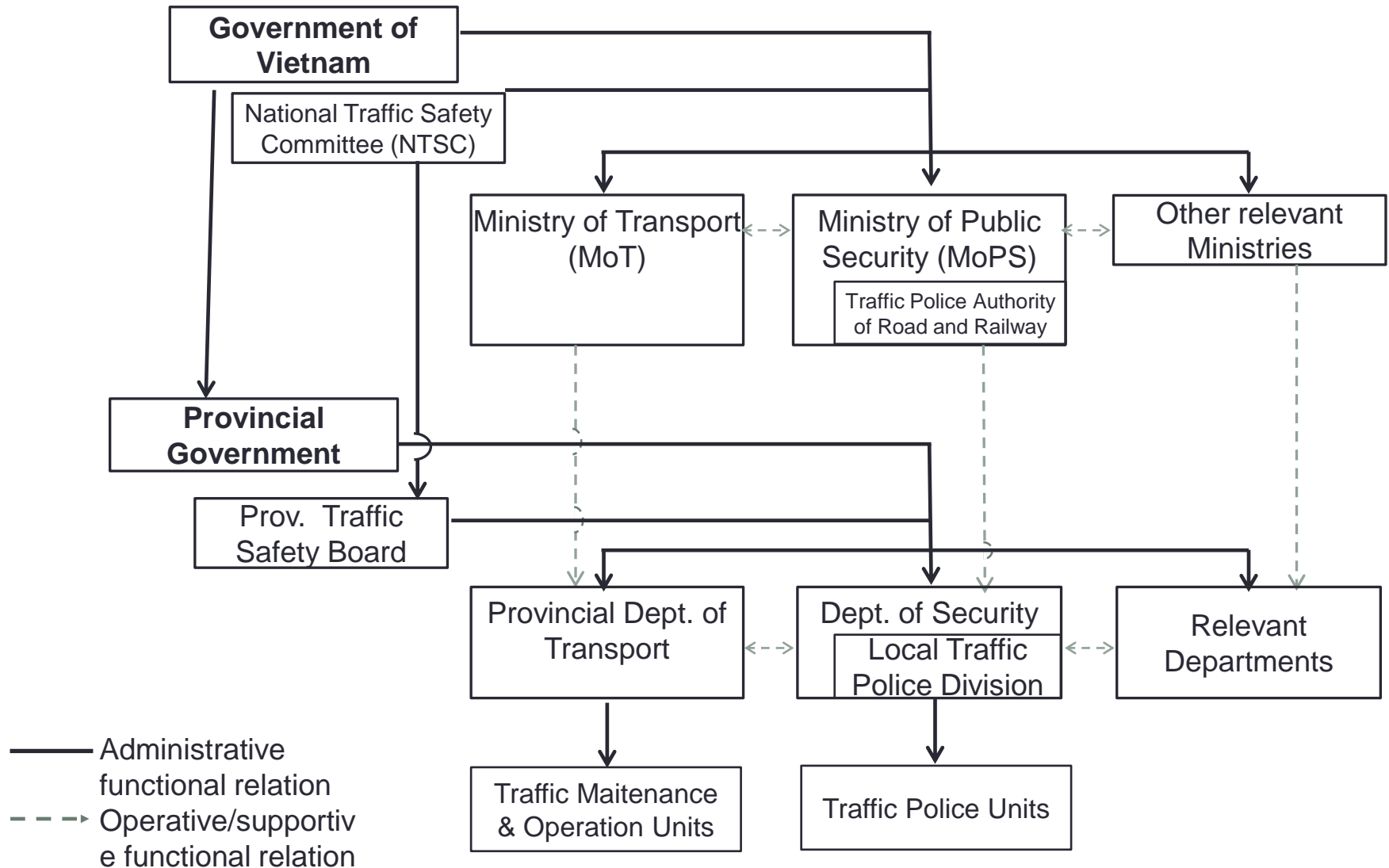
Vietnam motorizing ownership vs some countries



- Motorizing vehicles increase at rapid speed (annual growth rate is 7.3% for motorcycle and 6.3% for cars, 300.000 cars and more than 3 millions motorcycle newly registered every year (data for 2014), which is equal to 850 new cars and 9000 new motorcycles every day)
- Road density: 0.3 km/km<sup>2</sup> and 1.12 km/1000 people

# Traffic safety in Vietnam

## NTSC Organization



# Transport System Management Policies

- Transport infrastructure:
  - Transport Infrastructure is improving but still over-loaded;
  - Restructuring of investment toward other modes, but road is remaining dominant;
  - Road Maintenance Fund (RMF) starts its importance;
  - PPP investment and operation (Road, IWT, Aviation, Maritime and Rail);
  - Clear prioritization in infrastructure development;
- Vehicle management policies
  - Easing of policies on domestic road vehicle industries;
  - More consideration on vehicle quality management;
  - Keeping high access price for individual motorized vehicles;
- Commercial Transport Services
  - Decentralization in Administration: Privatization
  - Transport Market Restructure: Enhancing capacity and quality of Aviation (LCC) Railway, Inland Waterway, Coastal and Maritime
  - Comprehensive Incentive Program on public transport investment and operation ;
  - IT application in commercial transport administration (GPS Monitoring device is required for all commercial vehicles)

# Resolution of Government 88/NQ-CP dated 2011

- Aimed at 5 major areas of traffic safety:
  1. Road Traffic Safety
    - Control the drinking drivers;
    - Maintain and improve the wearing helmet; Enforce the teenagers in motorcycle driving;
    - Educate traffic safety in the schools;
    - Improve the traffic safety emergency;
    - Improve the traffic safety culture propaganda;
    - Enhance the management of commercial transport business;
    - Improve traffic management, traffic control, and safety of transport infrastructure;
    - Improve traffic inspection and enforcement;
    - Improve the management in driving training and test;

# Resolution of Government 88/NQ-CP dated 2011

2. Railway Safety
3. Aviation Safety
4. Maritime Traffic Safety
5. Inland waterway Safety

...and strengthen the institutional management efficiency:

- Improve the institutional management efficiency from the Central Government to the Local;
- Continue to enhance National TSC and Local TSC;
- Capacity Development for traffic safety from Central to Local Agencies

Significances of implementation:

- Reduced ~2,400 fatalities during 4 years, from 11,395 (2011) to 8,996 (2014);
- Reduced ~9,000 injuries during 3 years, from 33,411 (2012) to 24,417 (2014);



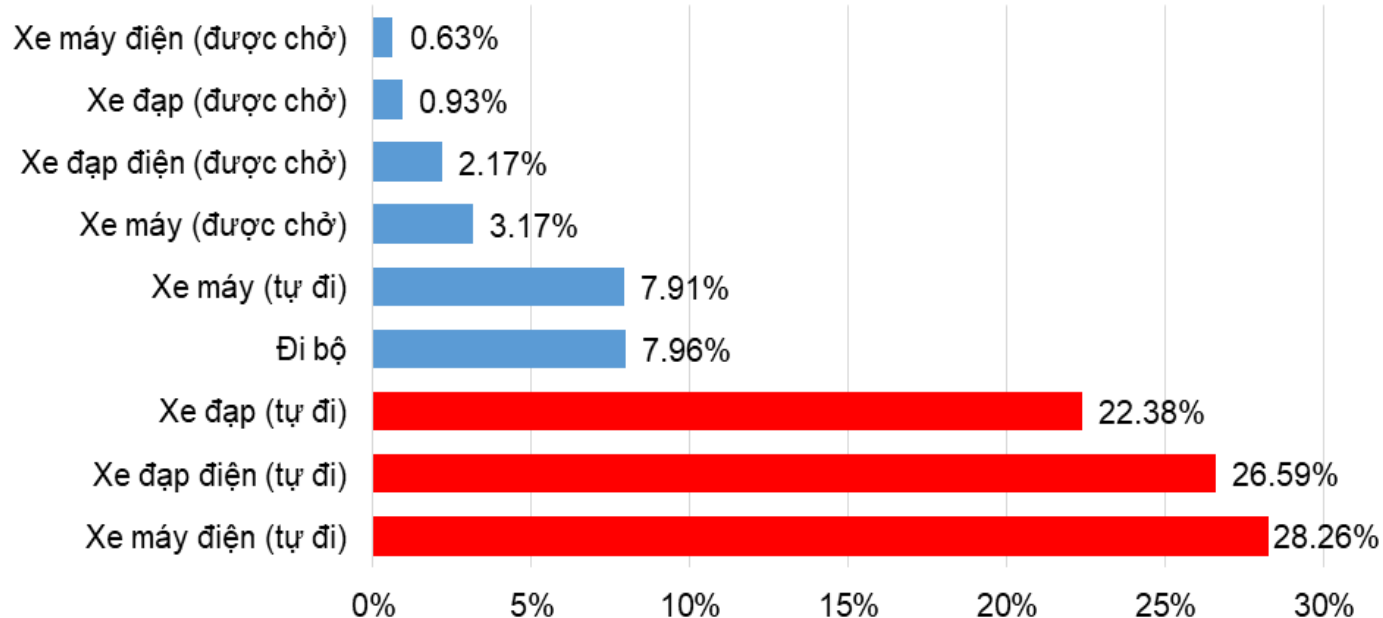
# The use of 2 wheelers

- Population: 90 millions (National Population and Housing Survey , 2014)
- Relative young population (94,7% of population < 64 years old)
- Motorbikes: closed to 46 million registered, → 1 motorbikes per 2 people
- 96% of Vietnam motorbike market belongs so these 4 manufacturers: Honda, Yamaha, Suzuki, Piaggio.
- On average, 3 million new motorbikes sold annually in VN; by 2020, the total number of motorbikes in circulation could be up to 60 million.
- Motorbikes in no doubt is the most popular mean of transportation in Vietnam
- 80% of population uses motorbikes everyday
- Closed to 70% road accidents involved motorbikes



# Case study on Hanoi highschool traffic accidents

## Causes of high school traffic accidents



High school students are the most vulnerable road users in Hanoi:

- 90% road crash victims are high school students;
- Death ratio per 100.000 high school students due to traffic accidents in Hanoi is rather high compare to other cities in South East Asia.

Main causes included: error while passing, error while changing lanes, wrong lane, speeding...55% of traffic accidents caused by motorbikes and electric bikes

# Causes of these shortcomings

## Infrastructures

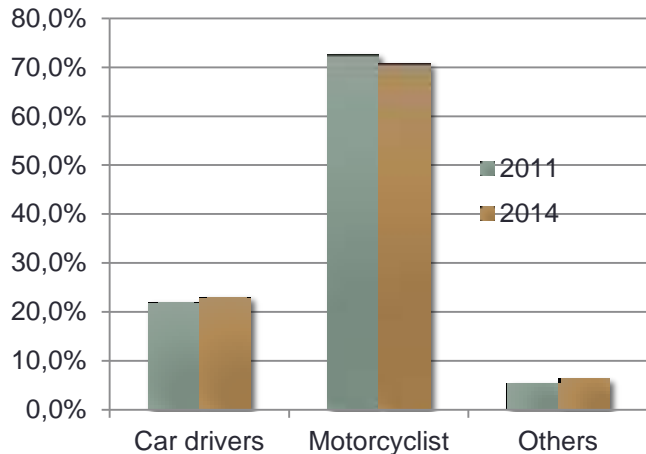
- Separate lanes for bicycles: not available
- School zones
- Violations of pavement usage
- Drop off area: not available



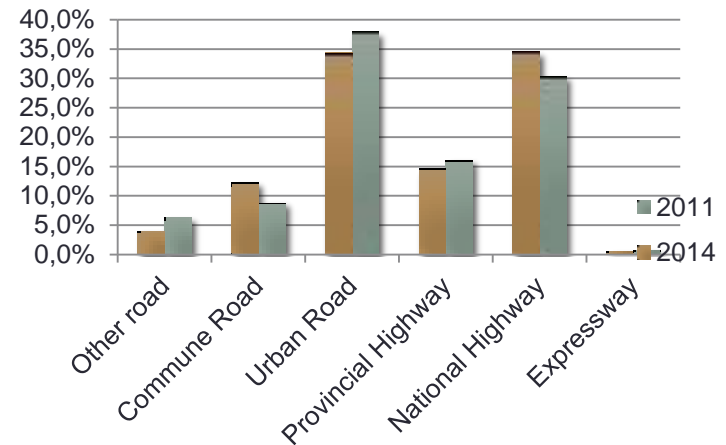
# Traffic accident in Vietnam

## Motorcyclist – Rural- Youth- Night!

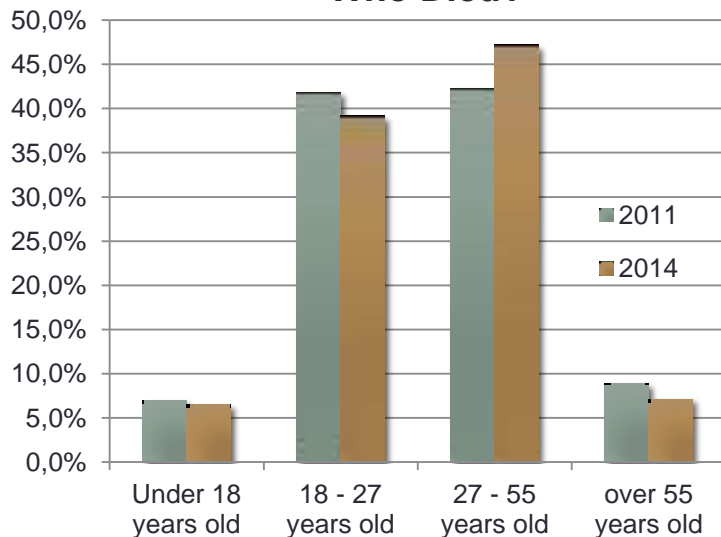
Who Caused?



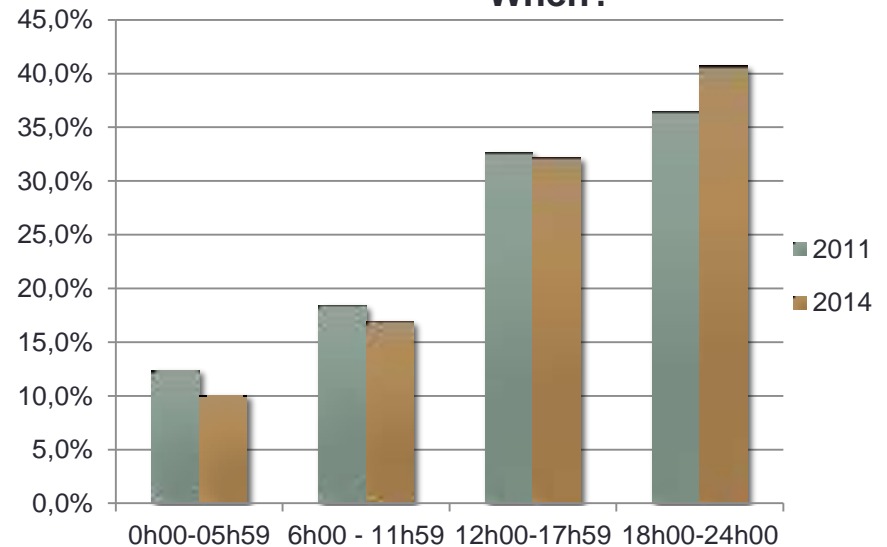
Where?



Who Died?

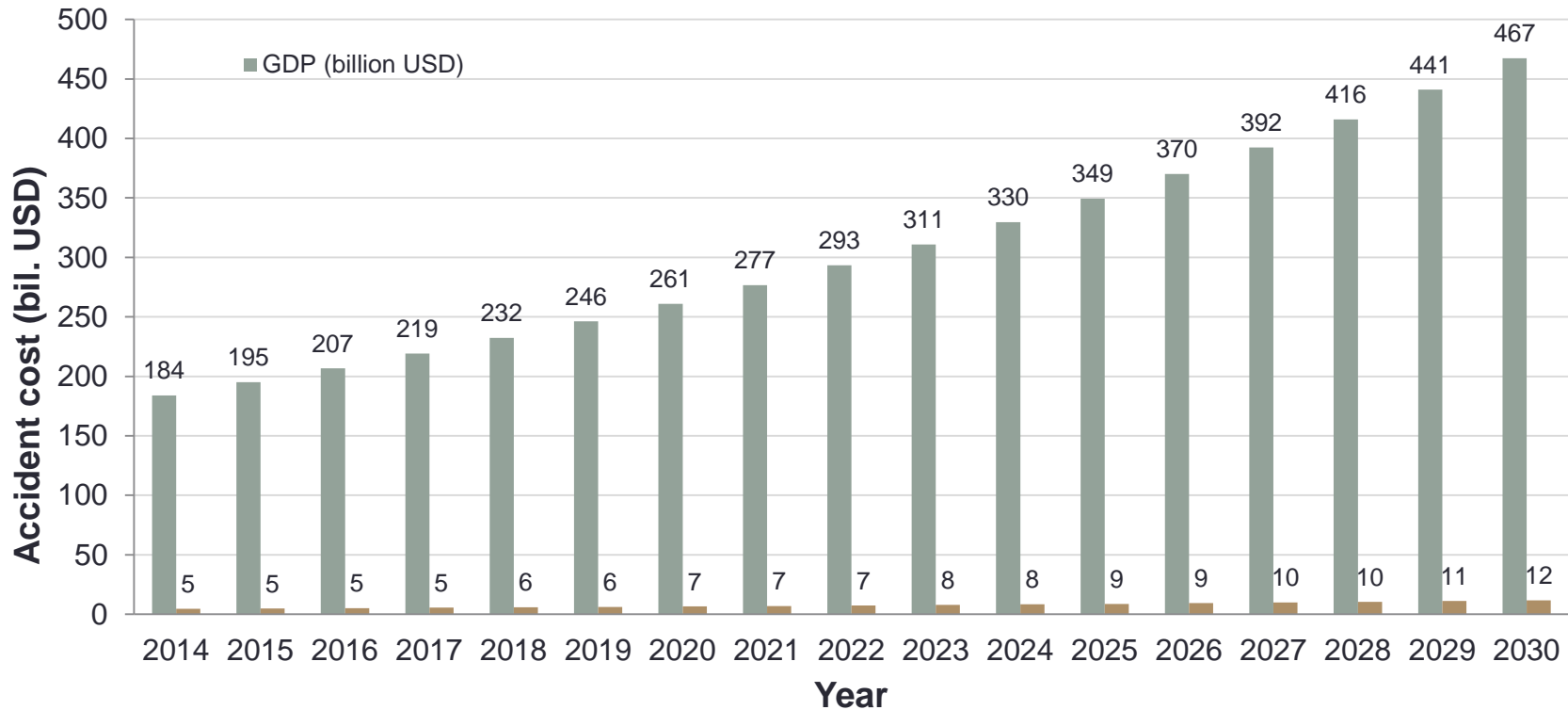


When?



# Traffic accident in Vietnam

## Costs



- Based on assumptions: GDP growth 6% annually and traffic accident cost accounts for 2.5% of GDP.
- Accident cost per year: 5-12 billion USD, **total traffic accident cost 2015-2030 period: 130 billion USD!**

# Good Practice: Vehicle Free Street - Hoan Kiem Lake!



## Good practice: Helmets

Since 15/9/2007: Helmets must be worn for motor cyclers on ALL national highways  
Since 15/12/2007: Helmets must be worn for motor cyclers on ALL ROADS including city roads



# Challenges: 2 wheeler Users

- Awareness
  - Road law is still unofficial in the education program in schools;
  - Unaware on the traffic law, especially road law;
  - Naturally make violations: Signal violation; Lane violation; ...
- Custom
  - One of the top countries in the world consume alcohol (wine and beer);
  - Popular drinking and using vehicles;
- Road user behavior
  - Uncooperative or selfish;
  - “Young phenomenon” in driving behavior;
  - Road users make violation because of the others make violation;





## Challenges: Others

- Motorization (Motorcycles and Cars)
- Law enforcement capacity
- Traffic Safety Education and Promotion
- Infrastructure capacity and safety
- Technologies (Database & Coordination)
- Resources (Financial and Human)



# STRATEGIES

- Alternatives for Individual motorized vehicle travel
  - Improvement of public transport services
  - Strengthen of Sharing transport services
  - Active mobility promotion (walking, cycling)
- Control usage of car and engine motorcycles
  - Vehicle quality control (technical and emission standards)
  - Driving & Parking Pricing
  - Driving & Parking right Control
- Safer mobility environment
  - Infrastructure Maintenance Management System ( safe road surface traffic markings, signs & signals...)
  - Designated lane and parking spaces for motorcycles and E-bike
  - Provision & protection of space for walking and cycling
  - Real time traffic monitoring & information systems

# STRATEGIES

- Integrated Traffic Safety Database
  - Accident data
  - Driver data
  - Vehicle data
  - Infrastructure data
- Smarter enforcements
  - CCTV & automatic enforcement camera
  - Smart devices for policemen
- Reliable post-crash services
  - 30 minutes ambulance service standard
  - Pre-hospital treatment skill development
- Smarter traffic education
  - Comprehensive traffic safety education program for school system
  - Interactive traffic safety education methods
  - Social Network Based traffic safety campaign and education (TV, Video, Radio, KOL messages)

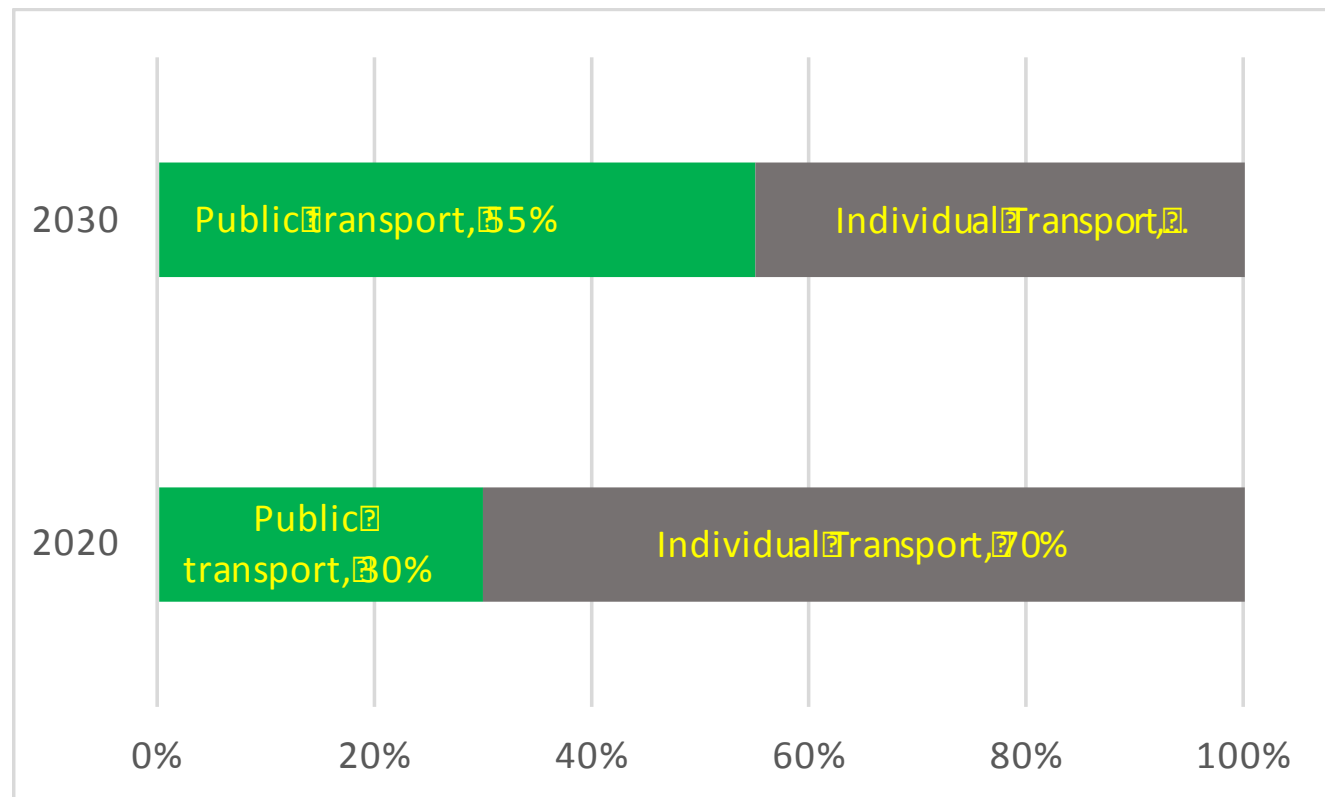
# STRATEGIES: Alternative Modes for IMV Improvement of Walking Environment



# STRATEGIES: Alternative Modes for IMV

## Strengthening Public Transport Services

- Longdistance and regional public transport improvement (Double 20): 80% travellers can access to public transportation within 20 minutes (by foot, bike, motorcycle taxi, local feeder services) & with waiting tie less than 20 minutes for replacing of long distance car & motorycle trips
- Urban public transport improvement (500m/10minute): 80% urban activities are within 500m walking distance to public transport with waiting time less than 10 minutes.



# Strategies: Individual vehicle management

- **Motorcycle Usage Control**
  - Emission Test for Motorcycle (2018)
  - Motorcycle Inspection (2020)
  - Designated Motorcycle Restricted Zone (2030)
- **Car Usage Control**
  - Parking Control (Odd-Even Plate Number, I-Parking - 2017)
  - Parking Pricing(2018)
  - Congestion Charging (2020)
  - Designed Car Restricted Zone (2030)

# Strategies: Traffic Safety Education

- Traffic Safety Education:
  - Road users;
  - School Children;
  - Public.

## Strategies: Post-crash services improvement

- ❑ First-aid posts,
- ❑ Rescue stations



Thank you for your kind attention

Q&A