VIETNAM TRAFFIC SAFETY FOR 2 WHEELERS: CHALLENGES AND STRATEGIES

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- Traffic safety in Vietnam
- Strategies and Measures for 2 wheelers and electrical bikes in Vietnam traffic up to 2020,
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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

- Motorizing vehicles increase at rapid speed (annual growth rate is 7.3% for motorcycles 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/km² and 1.12 km/1000 people

Traffic safety in Vietnam

NTSC Organization

- Government of Vietnam
  - National Traffic Safety Committee (NTSC)
    - Ministry of Transport (MoT)
    - Ministry of Public Security (MoPS)
      - Traffic Police Authority of Road and Railway
- Provincial Government
  - Prov. Traffic Safety Board
    - Provincial Dept. of Transport
      - Traffic Maintenance & Operation Units
      - Dept. of Security
        - Local Traffic Police Division
        - Relevant Departments
- Other relevant Ministries
  - Administrative functional relation
  - Operative/supportive functional relation
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

Xe máy điện (được chở) 0.63%
Xe đạp (được chở) 0.93%
Xe đập điện (được chở) 2.17%
Xe máy (được chở) 3.17%
Xe máy (tự đi) 7.91%
Đi bộ 7.96%
Xe đạp (tự đi) 22.38%
Xe đập điện (tự đi) 26.59%
Xe máy điện (tự đi) 28.26%

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?

Who Died?

Where?

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 & motorcycle trips.
- Urban public transport improvement (500m/10 minute): 80% urban activities are within 500m walking distance to public transport with waiting time less than 10 minutes.

![Graph showing percentage of public transport and individual transport over time]

- 2020: 30% Public transport, 70% Individual Transport
- 2030: 55% Public transport, 45% Individual Transport
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