

EastS – board meeting & symposium \* tokyo, 15-16 october 2004



## ***general overview on the road safety in the asean region***

*by Prof. Dr. Nguyen Xuan Dao - Vietnam*

### Bibliography:

**Nguyen Xuan Dao a.o - Road Safety Situation  
and Road Accident Costing in Vietnam.  
Report to ADB-ASEAN Project  
Hanoi, 2003 – 2004**

**Dr. Alan ROSS - Scale, Characteristics and  
Costs of the Road Safety  
Problem in ASEAN  
ADB-ASEAN Road Safety Program,  
K.L., 2003-2004**

### **Content:**

- **introduction,**
- **road safety situation in asean region,**
- **towards road accident costing in the Asean region,**
- **conclusions & findings,**

East – board meeting & symposium \* tokyo, 15 -16 october 2004



## Easts – board meeting & symposium \* tokyo, 15 -16 october 2004

### 1) Introduction

- road and/or traffic safety = one of the most actual problems in the civilized world.
- about adb-asean road safety project.

*started Autum 2003,*

*the kuala lumpur adb-asean  
Road Safety ,*

*Asnet system set up for  
exchange of documents &  
network meeting*

- Project aimes imaging Road safety situation in Asean countries and estimating costs & losses from Road safety.





Easts – board meeting & symposium \* tokyo, 15 -16 october 2004

## 2. An outlook on the asean region road safety

### Contradiction:

- Great difference in Population – road user (0,32 – 245 mil..).
- Different economic development level.
- Urbanization level 20% - 100%.
- GDP/capita USD 128 – 23,000

### 10 Member Countries



Brunei, Cambodia, Indonesia, Laos PDR, Malaysia,  
Myanmar, Philippines, Singapore, Thailand, Vietnam

### Similarities:

- Mixed traffic flow with motorcycles from 3% to 95%.
- Different behaviour of road users: not high consciousness  
And awareness of traffic rules.
- Indication of hig road accidents during lunar new year.
- Road accident database not completed and fully utilized.
- Not full consciousness of road accident costing & their  
Social important role.

## Easts – board meeting & symposium \* tokyo, 15 -16 october 2004

the contradictions and similarities should be considered for the development of the ASEAN region.

contradictions and differences of developing levels allow the ASEAN community to share experience from the member countries and overcome the same difficulties.

similarities allow to share resources for development up to the common solutions to arising problems such as road safety, mixed traffic and density of motorcycles.

### For Example

- The Significance and Effectiveness of the EASTS – Join Study “motorcycle traffic in the developing countries” supported by EASTS & realized by Taiwan, Malaysia and Vietnam.  
***Motorcycle Traffic in most countries of ASEAN has to be equally treated, organized and managed as one of the dominant parts in traffic flow.***

***Mixed  
Traffic in  
Hanoi,***

photo by  
***Nguyen Xuan Dao***

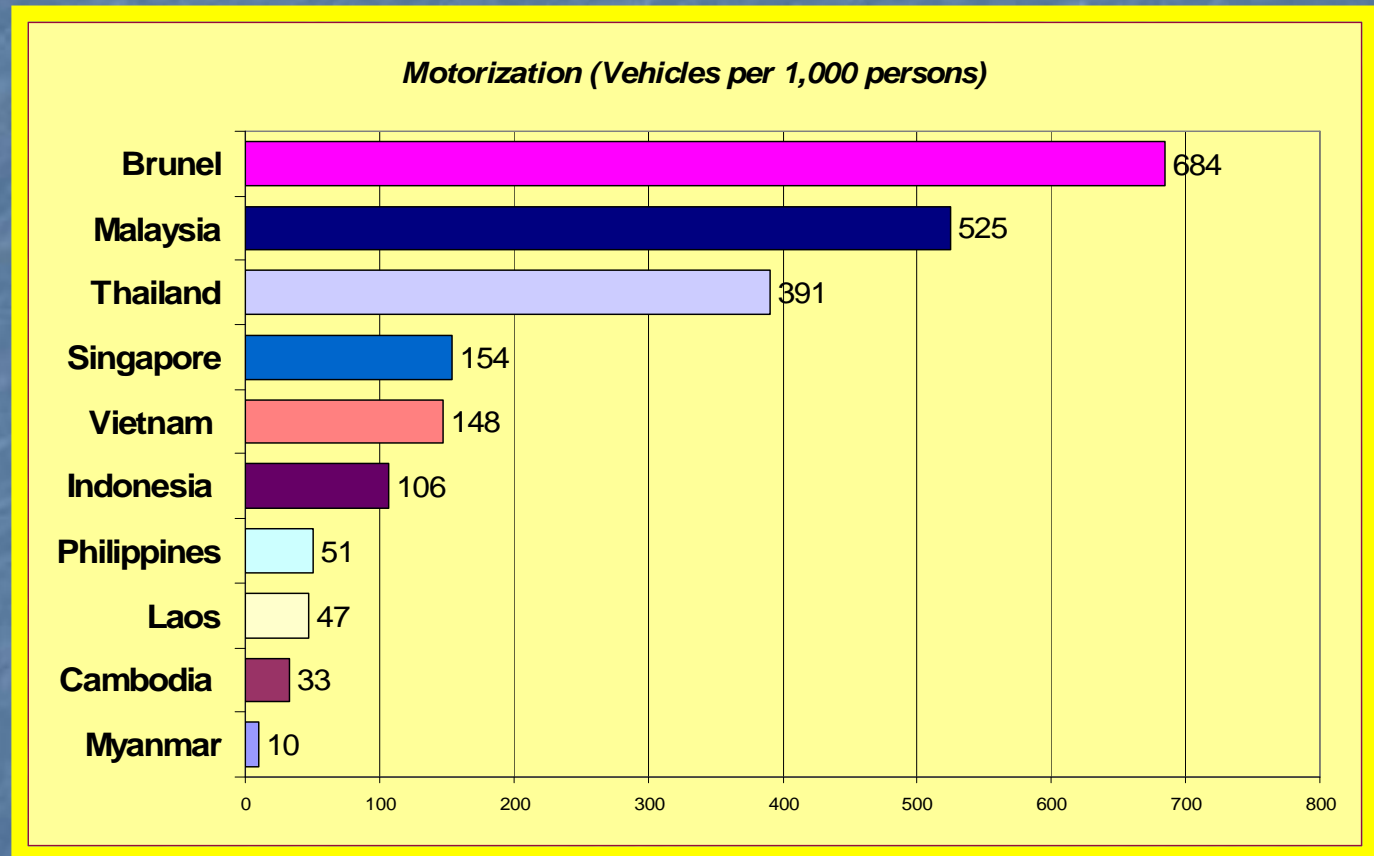


2005/1/18

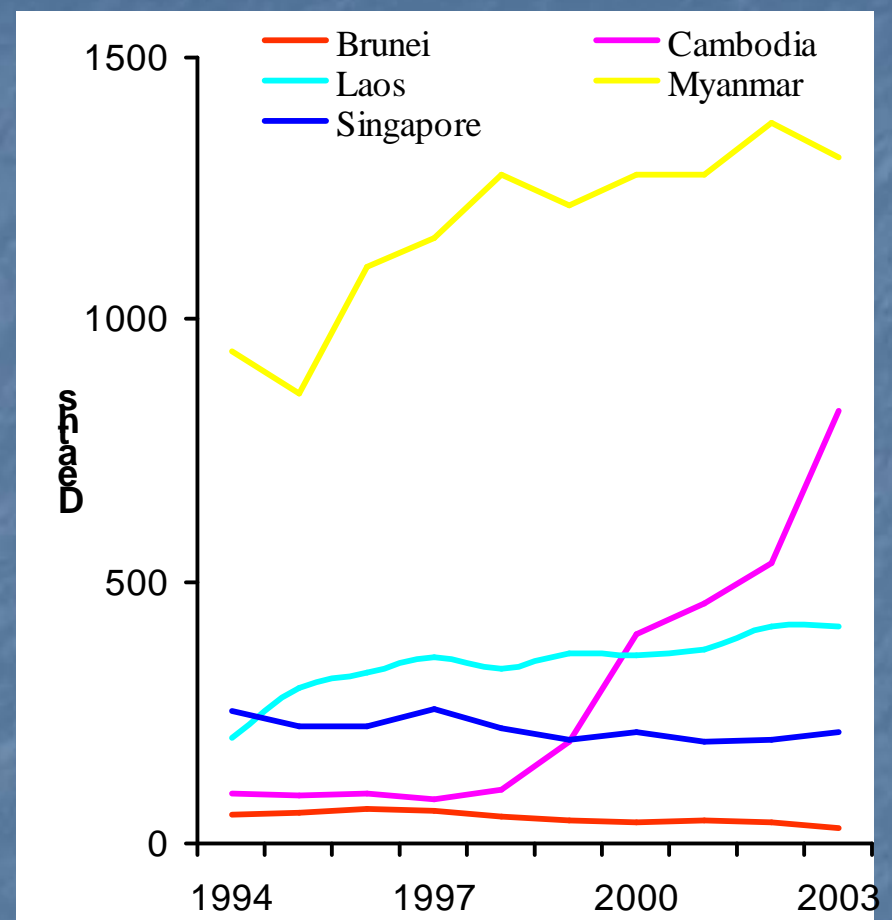
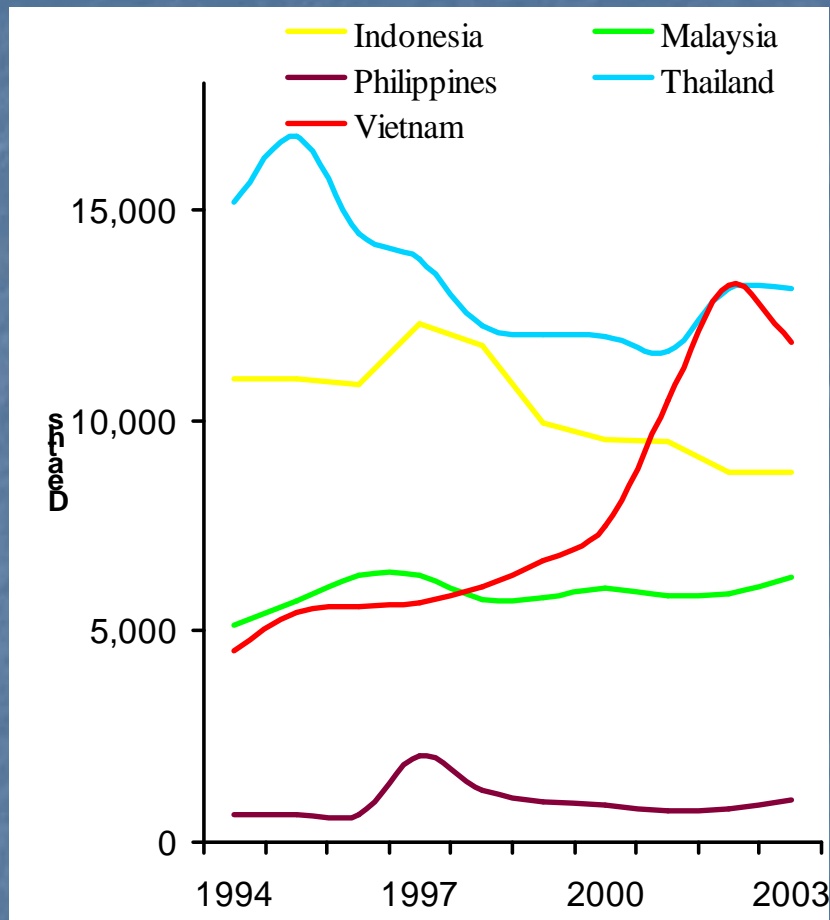
**Figure 1:**

**Motorisation per  
1,000 persons  
in ASEAN  
Region**

***From the viewpoint  
of road safety, all  
components of  
traffic flow (all  
types of vehicles,  
motorcycles, non-  
motor vehicles and  
walkers... ) are  
equal to  
discharge their  
responsibility  
towards road  
safety on roads.***



## Easts – board meeting & symposium \* tokyo, 15 -16 october 2004



**Figure 2:**

***The increase, during the 10 years (1994-2003), in losses of life resulted from road accidents in ASEAN (per member country).***



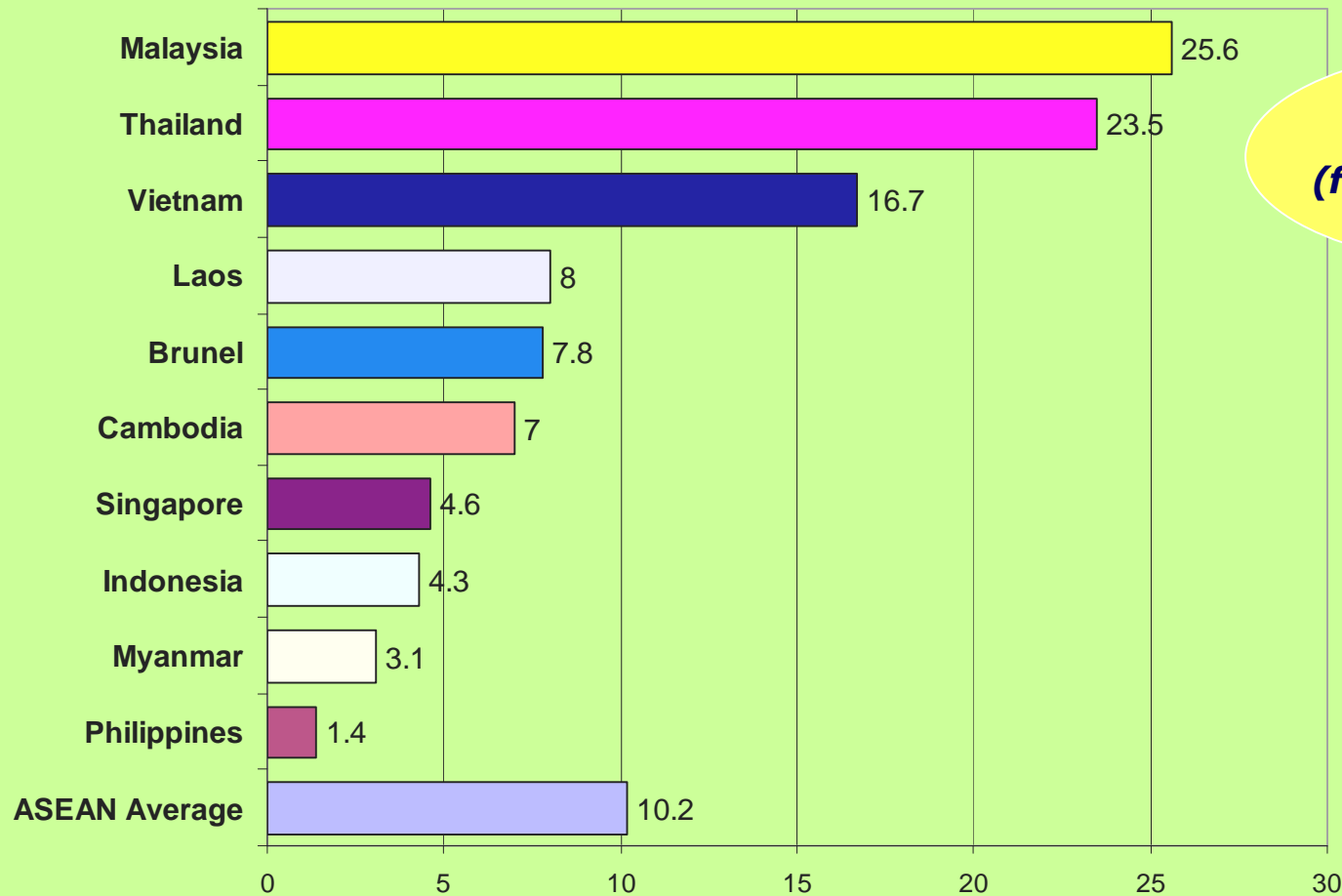
**Easts – board meeting & symposium \* tokyo, 15 -16 october 2004**

<b><i>Country</i></b>	<b><i>Deaths</i></b>	<b><i>Injures</i></b>
<b>Brunei</b>	28	<b>645</b>
<b>Singapore</b>	211	<b>6.231</b>
<b>Laos</b>	415	<b>6.329</b>
<b>Cambodia</b>	824	<b>6.793</b>
<b>Philippines</b>	995	<b>7.975</b>
<b>Myanmar</b>	1.308	<b>9.299</b>
<b>Malaysia</b>	6.282	<b>13.941</b>
<b>Indonesia</b>	8.761	<b>20.694</b>
<b>Vietnam</b>	11.853	<b>46.420</b>
<b>Thailand</b>	13.118	<b>69.313</b>
<b><i>Total ASEAN</i></b>	<b><i>43.795</i></b>	<b><i>187.640</i></b>

**Table 1: Information on the Traffic Deaths and Injuries for comparison between the ASEAN member countries only in 2003.**

Easts – board meeting & symposium \* tokyo, 15 -16 october 2004

Personal Risk (Fatalities per 100,000 population) 2003 (30-day Deaths)



**Figure 3:**  
*Personal risk  
(fatalities per 100,000  
persons in ASEAN)*

### 3. Towards road accident costings in asean

#### *Methodology selected for accident costing*

- Gross Output Methodology
- Human Capital Methodology
- Net Output Methodology
- Life Insurance Methodology
- Court Award Methodology
- Implicit Public Sector Valuation Methodology
- Willingness-to-pay Methodology

What  
Methodology???



### 3. Towards road accident costings in asean

#### *Methodology selected for accident costing*

- Value of costs based on Gross Output or Human Capital method is less than that of WTP method.
- WTP method is more applied in developed countries, but difficult for developing countries

***The gross output or human capital methodology, selected as recommended by ADB for ASEAN countries***

#### *Cost components:*

1. ***Property Costs***
2. ***Administration Costs***
3. ***Medical Costs***
4. ***Lost Output***
5. ***Human Costs***



### 3. Towards road accident costings in asean

Table 2 :  
*Losses from  
road accidents  
in 2003 for ASEAN*

<i>COUNTRY</i>	<i>Annual Loss (US\$ Millions)</i>	<i>Expressed as %age of Annual GDP</i>
Brunei	65	1.00%
Cambodia	116	3.21%
Indonesia	6,032	2.91%
Laos	47	2.70%
Malaysia	2,400	2.40%
Myanmar	200	3.00%
Philippines	965	1.20%
Singapore	457	0.50%
Thailand	3,000	2.10%
Vietnam	885	2.45%
<b>ASEAN</b>	<b>14,168</b>	<b>2.10 %</b>

Easts – board meeting & symposium \* tokyo, 15 -16 october 2004

**Table 3:**

*Losses from  
road accidents  
in ASEAN  
in 2003,  
the last 5 years and  
over the next 5 years*

*(if no urgent actions are  
taken by  
the ASEAN community.)*

Items	Past 5 years (1998 – 2003)	2003	Next 5 years (2004 – 2008)
Fatalities	314.300	70.300	385.700
Injuries	20.400.000	4.480.000	24.430.000
Economic losses	<b>US\$ 52,850 million</b>	<b>US\$ 14,170 million</b>	<b>US\$ 88,830 million</b>
<b>% GDP</b>	<b>2.1%</b>	<b>2.1%</b>	<b>2.1%</b>

## East – board meeting & symposium \* tokyo, 15 -16 october 2004

**Table 4:**

*Target lives to  
be saved  
From  
road accidents  
over the  
next 5 years  
in the ASEAN*

<b>Country</b>	<b>Target : <i>lives to be saved over next 5 years</i></b>
<b><i>Brunei</i></b>	<b><i>45</i></b>
<b><i>Cambodia</i></b>	<b><i>1.800</i></b>
<b><i>Indonesia</i></b>	<b><i>12.000</i></b>
<b><i>Laos</i></b>	<b><i>919</i></b>
<b><i>Malaysia</i></b>	<b><i>3.000</i></b>
<b><i>Myanmar</i></b>	<b><i>940</i></b>
<b><i>Philippines</i></b>	<b><i>3.000</i></b>
<b><i>Singapore</i></b>	<b><i>100</i></b>
<b><i>Thailand</i></b>	<b><i>13.000</i></b>
<b><i>Viet Nam</i></b>	<b><i>7.000</i></b>
<b><i>Total ASEAN</i></b>	<b><i>41.804</i></b>

#### ***4. Conclusions & findings***

- The ASEAN member countries realize that the road safety has become a big problem, more serious than the previous assessment.
- Many ASEAN member countries suffer the losses from road accidents up to 2% GDP a year.
- In ASEAN, there were yearly 70,000 road deaths and about over 4,4 million injuries.
- The annual losses across the ASEAN region are about US\$14.17 billion per year, i.e. 2.1% of the annual GDP of ASEAN.
- Road Accident Database System (RADS) is not complete . It needs to have better coordination and cooperation among traffic police, health people, hospitals and traffic management agencies to update the database.



#### 4. Conclusions & findings

2

- The individual Action Plan by ASEAN member countries will be implemented to save 42,000 lives from road accidents as well as greater figures of injures.
- Concepts of the follow-up projects in terms of organizing and control of ASEAN road traffic have been formulated to facilitate the road safety for the sake of people's happiness.
- As the result of the ADB – ASEAN Project on road safety, a tool using Internet to exchange experience and for distant education by ASEAN member countries has been set up.

That is the very *ASEAN Road Safety Network System* - **the ASNet.**

In **Action Plan for Road Safety** of every ASEAN country the **“Three E – Solution” (Engineering, Education and Enforcement)** have to be set up and step by step implemented .



Thank you for  
Your Attention !