



Thailand Road Safety Challenge

Dr.Pichai Taneerananon

**Pol.Capt.Amornchai
Leelakajonjit**

Pol.Capt.Pichet Kumpeeranon

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Overview

- **Introduction**
- **Goal and Objective**
- **The Challenges**
- **The Strategy**



The 2551 year old Systematic Approach to dealing with road crashes

The Problem : Road crashes/Casualties

- The Cause : What are the causes of crashes/injuries ?**
- The Goal : Road safety: Free from crashes/casualties**
- The Strategy : Right Countermeasures through knowledge from research**

The new paradigm of understanding road safety (WHO 2004)

- **crash injury is largely predictable and largely preventable;**
- **road safety policy must be based on a sound analysis and interpretation of data, rather than on anecdote;**
- **since human error in complex traffic systems cannot be eliminated entirely, environmental solutions (including the design of roads and vehicles) must help in making road traffic systems safer;**
- **the vulnerability of the human body should be a limiting design factor for traffic systems, i.e. for vehicle and road design, and for setting speed limits;**

Goal and Objective

- **Help save some 5000 lives of Thai people in 5 years and reduce the number of crashes and injuries**
- **To produce the RED BOOK on road safety and strategic research topics.**

The Challenge

Current Situation

Thailand Road Safety

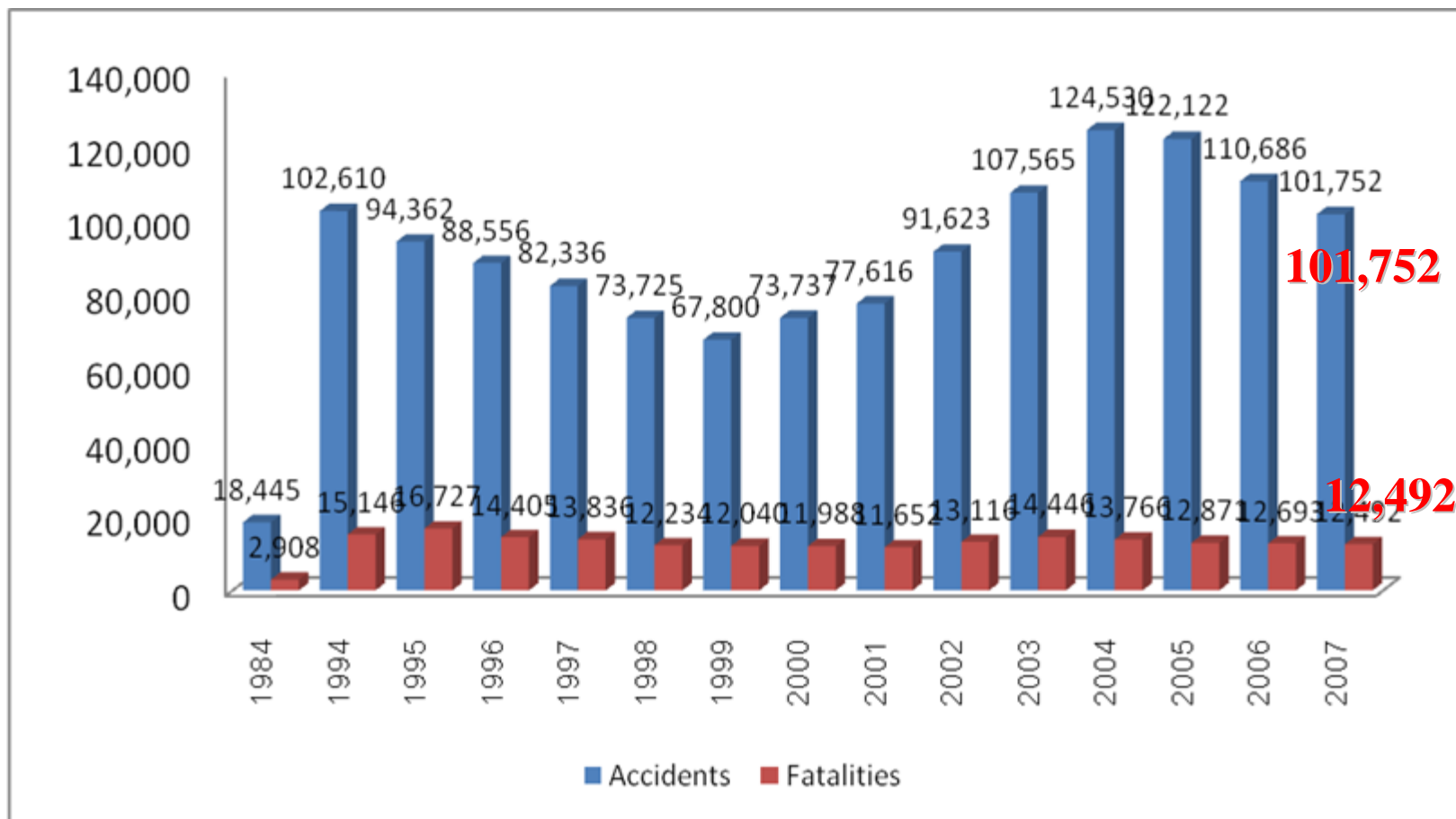


Number of road crashes injuries and fatalities during 1994-2007

Year	Number of			Number of population	No. of vehicles	Death rate		Injury rate	
	Accidents	Fatalities	Injuries			per 100,000 population	per 10,000 vehicles	per 100,000 population	Per 10,000 vehicles
1984	18,445	2,908	8,812	50,583,105	N.A.	5.75	N.A.	17.42	N.A.
1994	102,610	15,146	43,541	59,095,419	12,579,903	25.63	12.04	73.68	34.61
1995	94,362	16,727	50,718	59,460,382	14,097,719	28.13	11.87	85.3	35.98
1996	88,556	14,405	50,044	60,116,182	16,093,896	23.96	8.95	83.25	31.1
1997	82,336	13,836	48,761	60,816,227	17,666,240	22.75	7.83	80.18	27.6
1998	73,725	12,234	52,538	61,466,178	18,860,512	19.9	6.49	85.47	27.86
1999	67,800	12,040	47,770	61,661,701	20,096,536	19.53	5.99	77.47	23.77
2000	73,737	11,988	53,111	61,878,746	20,835,684	19.37	5.75	85.83	25.49
2001	77,616	11,652	53,960	62,308,887	22,589,185	18.7	5.16	86.6	23.89
2002	91,623	13,116	69,313	62,799,872	24,517,250	20.89	5.35	110.37	28.27
2003	107,565	14,446	81,070	63,079,765	26,378,862	22.9	5.48	128.52	30.73
2004	124,530	13,766	94,164	61,973,621	20,624,719	22.21	6.68	151.94	45.66
2005	122,122	12,871	94,445	62,418,054	22,571,062	20.62	5.7	151.31	41.84
2006	110,686	12,693	83,290	62,828,706	24,807,297	20.2	5.12	132.57	33.57
2007	101,752	12,492	79,029	63,038,247	25,618,447	20	5	125	31

Source: Royal Thai Police, Department of Provincial Administration and Department of Land Transport, and Office of Transport and Traffic Policy and Planning

Trend in the number of road crashes injuries and fatalities during 1994-2007



Source: Department of Highways 2007

No. of Killed in restive south

- **Some 3,071 in 4.5 years**
- **Murders, homicides**

No Killed on our roads

- $13000/365 = 36$ Daily !
- Mostly legal killings !

Benchmarking

Deaths/100,000pop

- Japan ~ 7.
- Sweden 6.7
- UK 5.9
- Netherlands 6.8
- THAILAND 20.0

Our Challenges

- **Save 5000 Thai People's Lives**
- **Bring down fatality rate to 12.7 deaths/ 100,000 by 2012**



The Cost

Total cost to the nation (2550 value)

232,855 million Baht

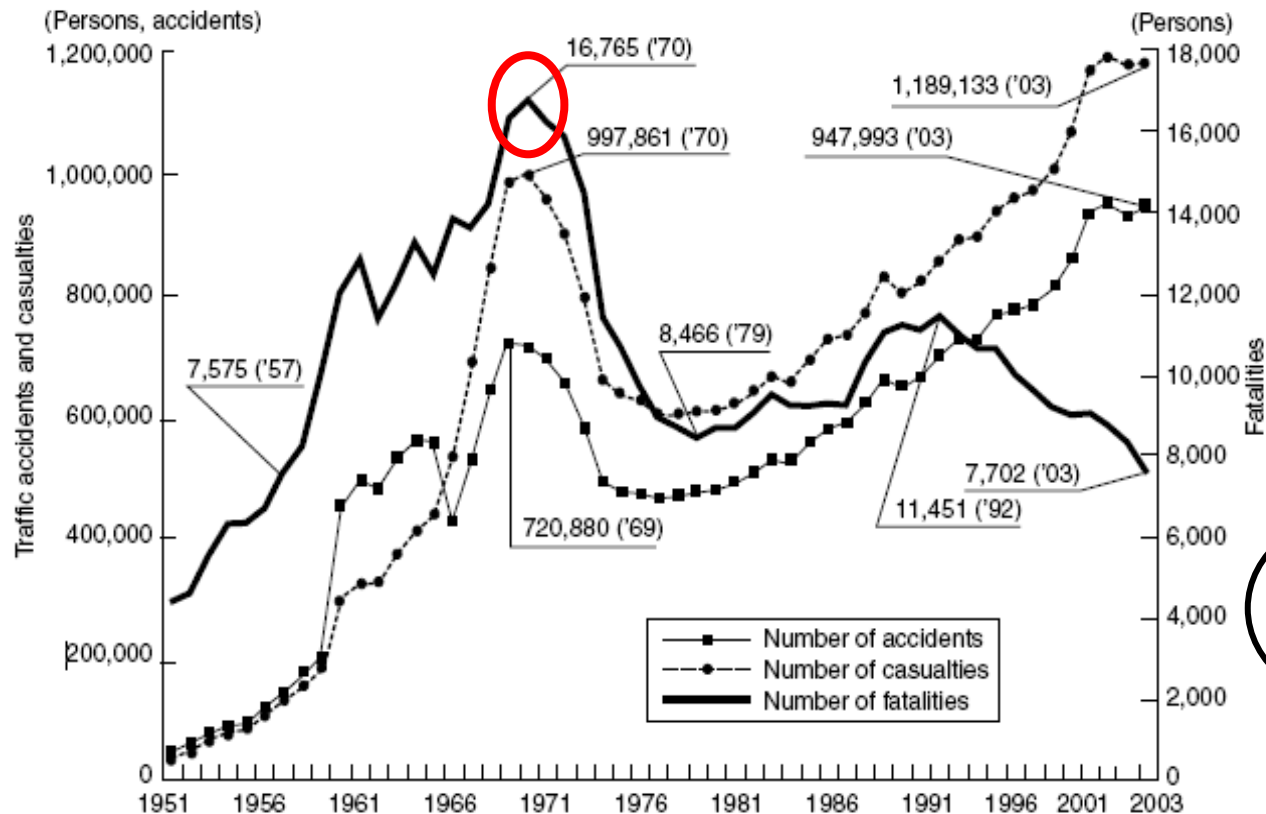
2.81% GDP

Methodology

- Review of Previous Research Works**
- Expert Interviews**

Japan Experience

Changes in Road Traffic Accidents, Casualties and Fatalities



Notes: 1. Source: National Police Agency

2. Figures after 1966 do not include property-damage-only accidents.

3. Figures for Okinawa Prefecture were not included before 1972.

Japan Experience

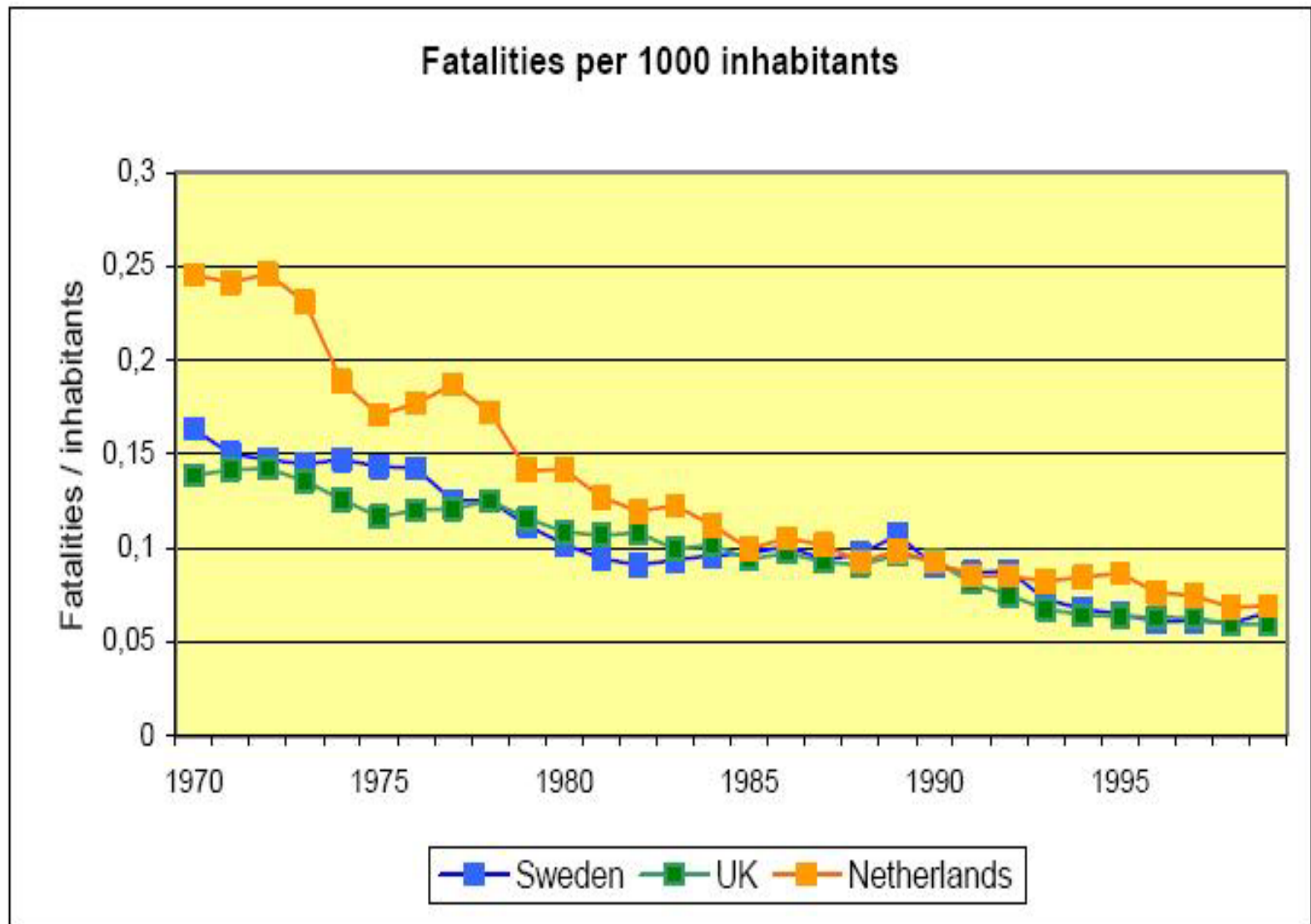
- **Road Environment Enhancements**
- **Implementation of the Road Traffic Safety Initiative**
- **Promotion of Safe Driving**
- **Improvement of Vehicle Safety**
- **Enhancement of Rescue Systems**
- **Improvement of Liability Security and Victim Support**

The SUN countries

Fatality rate 2000	Per billion vehicle kilometres	Per 100,000 inhabitants
Sweden	8.4	6.7
Great Britain	7.3	5.9
Netherlands	8.5	6.8
EU all 15 countries	13.6	11.0
USA	9.5	15.2
Australia	10.1	9.5
Japan	13.4	8.2

Table 1. *Fatality rates for SUN- and EU countries, USA, Australia and Japan (source OECD-IRTAD database and estimates from ETSC)*

The SUN countries



Expert Interviews

Human behavior

- Research and development of effective licensing system
- Effects of speed camera on speeding
- Drink-driving

Expert Interviews

Vehicle

-  Research on how to improve motorcycle safety such as leg protecting frame
-  Bus safety standards
-  Review the safety of small electric motorcycle

Expert Interview

Road and environment

- Roadside safety
- Research to development of speed hump standard for community use
- Research and development of motorcycle lane

Expert Interview

Road and environment (cont.)

- Practical research into improving motorcycle Safety in community between two sides of highway
- Provision of safe lay-by area on main roads
- Research into safety at traffic signal intersection

Expert Interview

Others

- Effectiveness of past media campaigns
- Barriers to winning the road safety war
Review of past efforts in combating road accidents
- Barriers to effective enforcement
- Research and development of traffic police manual

Expert Interview

Others (cont.)

- Research and development of new technology for road safety enforcement, eg. Red light and speed camera
- Research to identify human resource capacity in road safety and their potential to contribute to a research institute of road safety technology

Expert Interview

Others (cont.)

- Safe accessibility of the elderly and disabled
- Pedestrian safety
- Research and development of a road safety rating system

Expert Interview

Others (cont.)

- Review of the B.E.2522 Land Traffic Act
- Road safety performance index
- Research and development of social sanction for *persona non grata* drivers
- Mass transit role in reducing road fatalities



How much do we value of a human life?

