

Assessing Safety on Thailand National Highways Network

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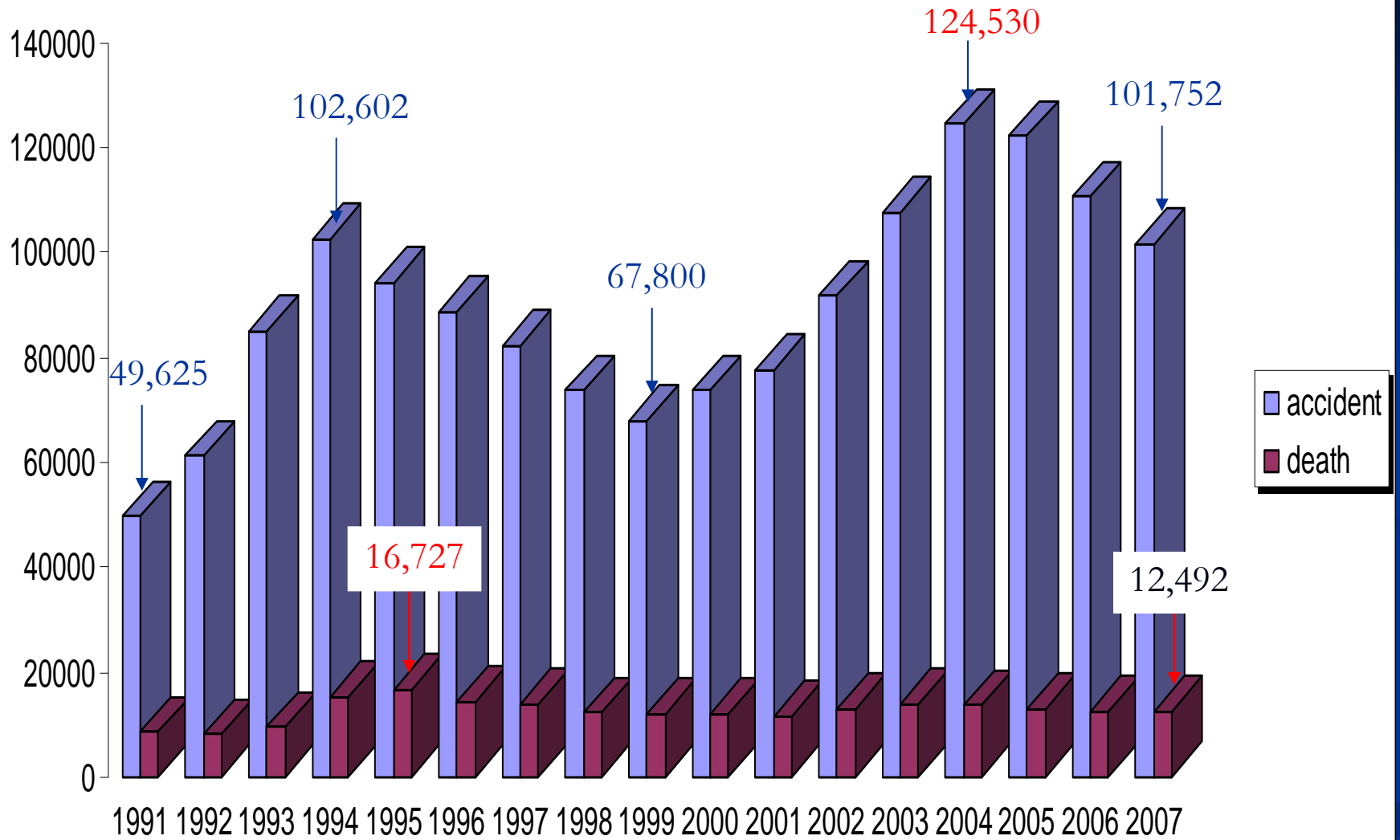
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- Introduction
- Road Accident Situation in Thailand
- Current International Assessment of Safety on Roads Network
- Pilot Study of Assessment
- Conclusions

Introduction

- Road crash is a major problem causing lives and assets.
- Based on the studies of various countries, it is found that the death toll from road crash over the world is higher than 1.2 million people while 50 million people are injured annually (WHO, 2004).

ROAD ACCIDENT SITUATION IN THAILAND



Year	Highways under responsibility of Department of Highways								
	Special intercity highways			Intra-city highways			Motorways		
	Accident	Death	Injury	Accident	Death	Injury	Accident	Death	Injury
2002	15,066	2,265	13,285	890	29	248	325	4	101
2003	15,171	2,023	12,984	1,014	44	254	371	3	140
2004	18,547	2,324	18,381	1,104	34	409	279	2	88
2005	16,287	2,169	15,300	979	35	303	380	5	122
2006	12,913	1,647	11,129	613	17	247	392	1	104
2007	13,655	1,605	11,132	798	33	268	336	-	74
Total	91,639	12,033	82,211	5398	192	1,729	2,083	15	629

Source: Bureau of Highway Safety, Department of Highways 2007



Bus Crash Scenes



Why has ThaiRAP been formed?

- Every day:
 - 6 killed
 - 38 seriously injured
- Need to reduce deaths and injuries by assessing risk of casualty crashes



Twin protocols

■ Risk Mapping

- maps of death & injury rates on road links

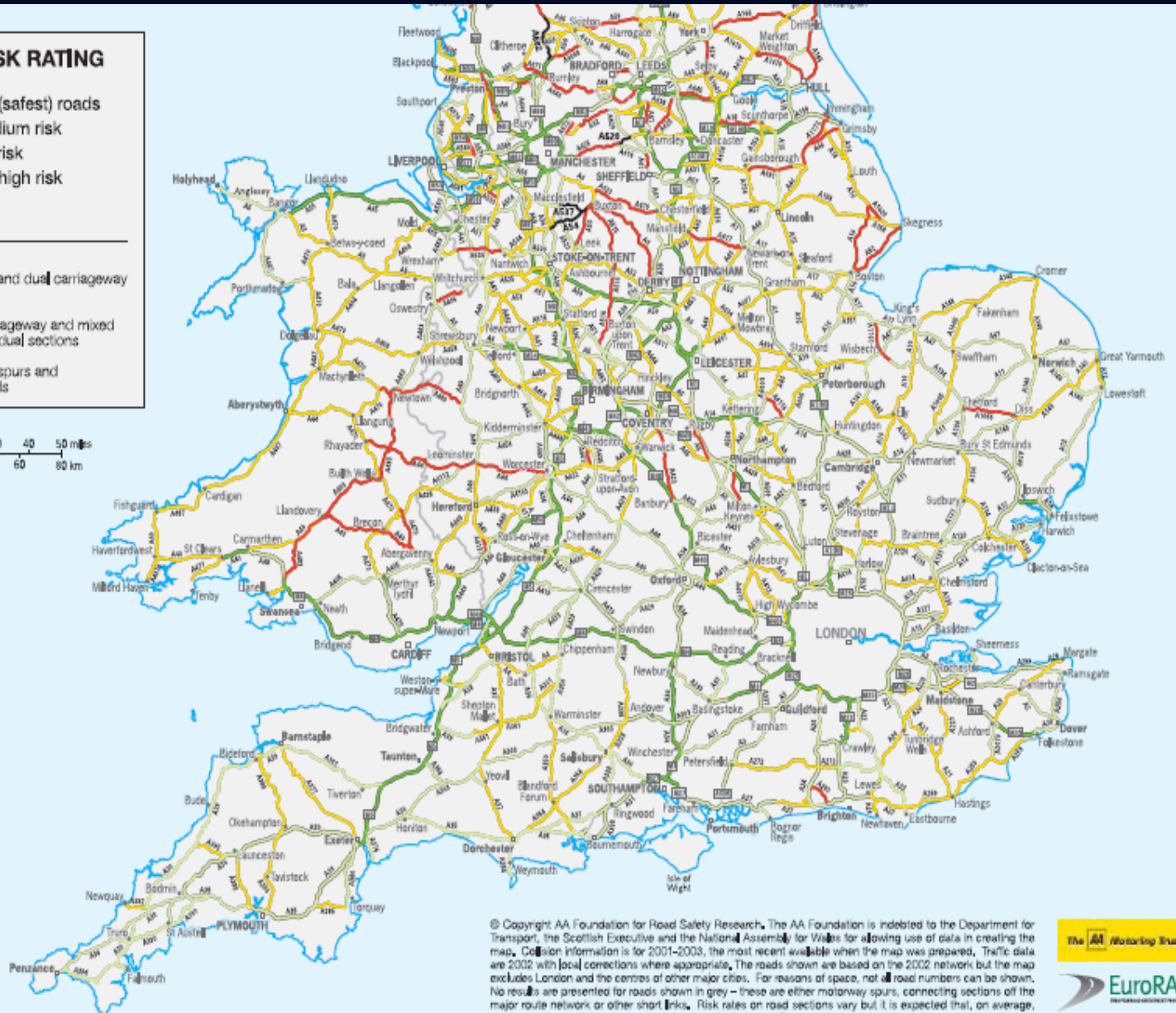
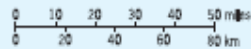
■ Star Ratings

- star ratings based on an inspection of safety features and roadside hazards

AA TRUST RISK RATING

- Low risk (safest) roads
- Low-medium risk
- Medium risk
- Medium-high risk
- High risk

- Motorway and dual carriageway sections
- Single carriageway and mixed single and dual sections
- Motorway spurs and linking roads



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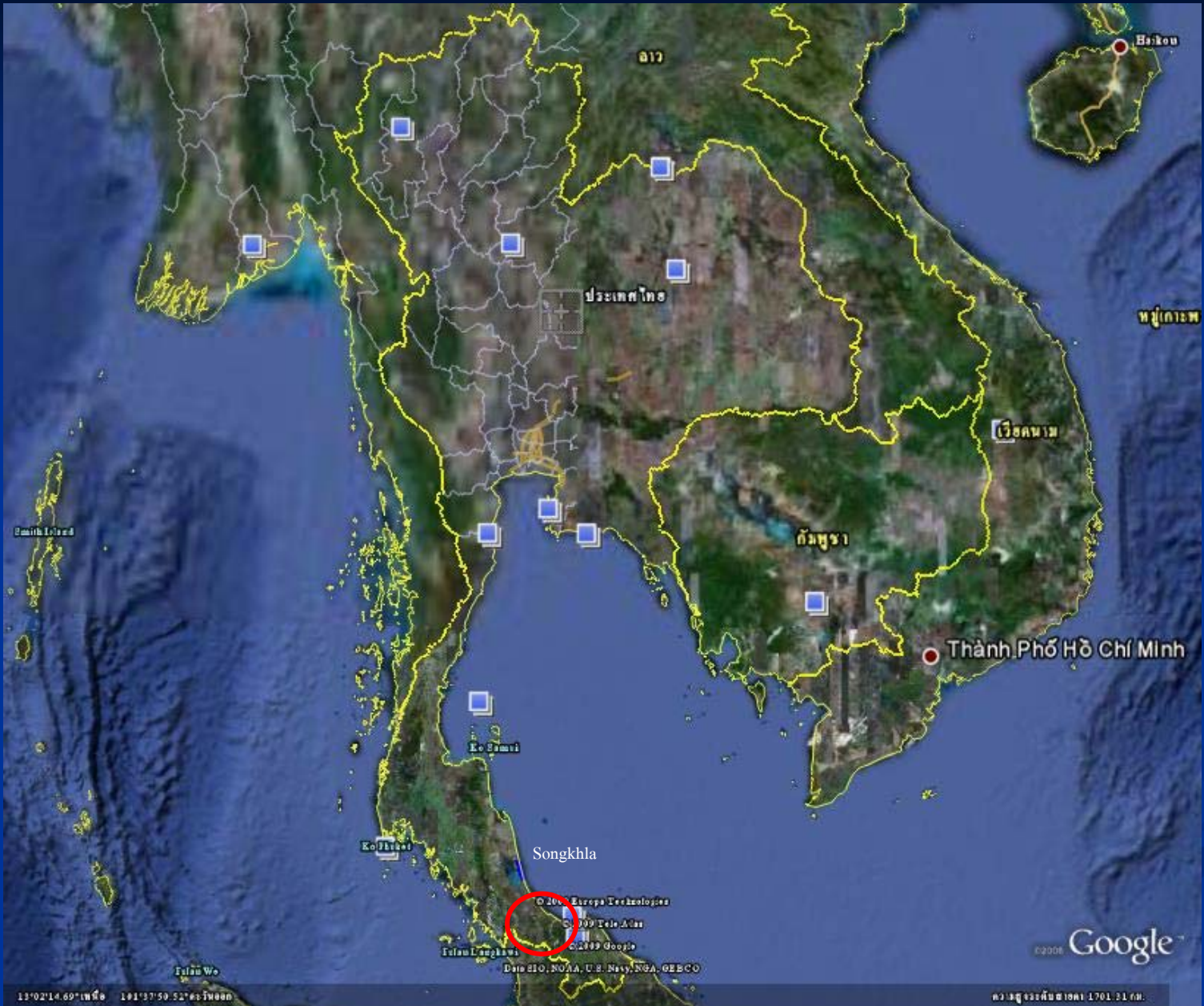


Star Ratings



Rating Scale	Divided Highway
	<p>Straight with good pavement surface, skid resistance, good line-marking sealed shoulders, sufficient clear zone area, no connected side roads, safe roadsides, occasional over-passes and no u-turns</p>
	<p>Minor deficiencies in some of the above features such as minor pavement defects, presence of some well designed connections, roadside or roadsides, few u-turns</p>
	<p>Major deficiencies in some road features such as poor skid resistance, insufficient clear zones, inadequate roadside protections against collisions with roadside hazards, poorly designed intersections, a few u-turns</p>
	<p>Many major deficiencies such as poor alignment, extensive potholes and other defects, poor skid resistance presence of continued roadside hazards eg. long line of trees and poor roadside protection, poorly designed connections and many u-turns</p>
	<p>Winding alignment, inadequate protection against run off the road crashes, poorly designed connections, u-turns at horizontal or vertical.</p>

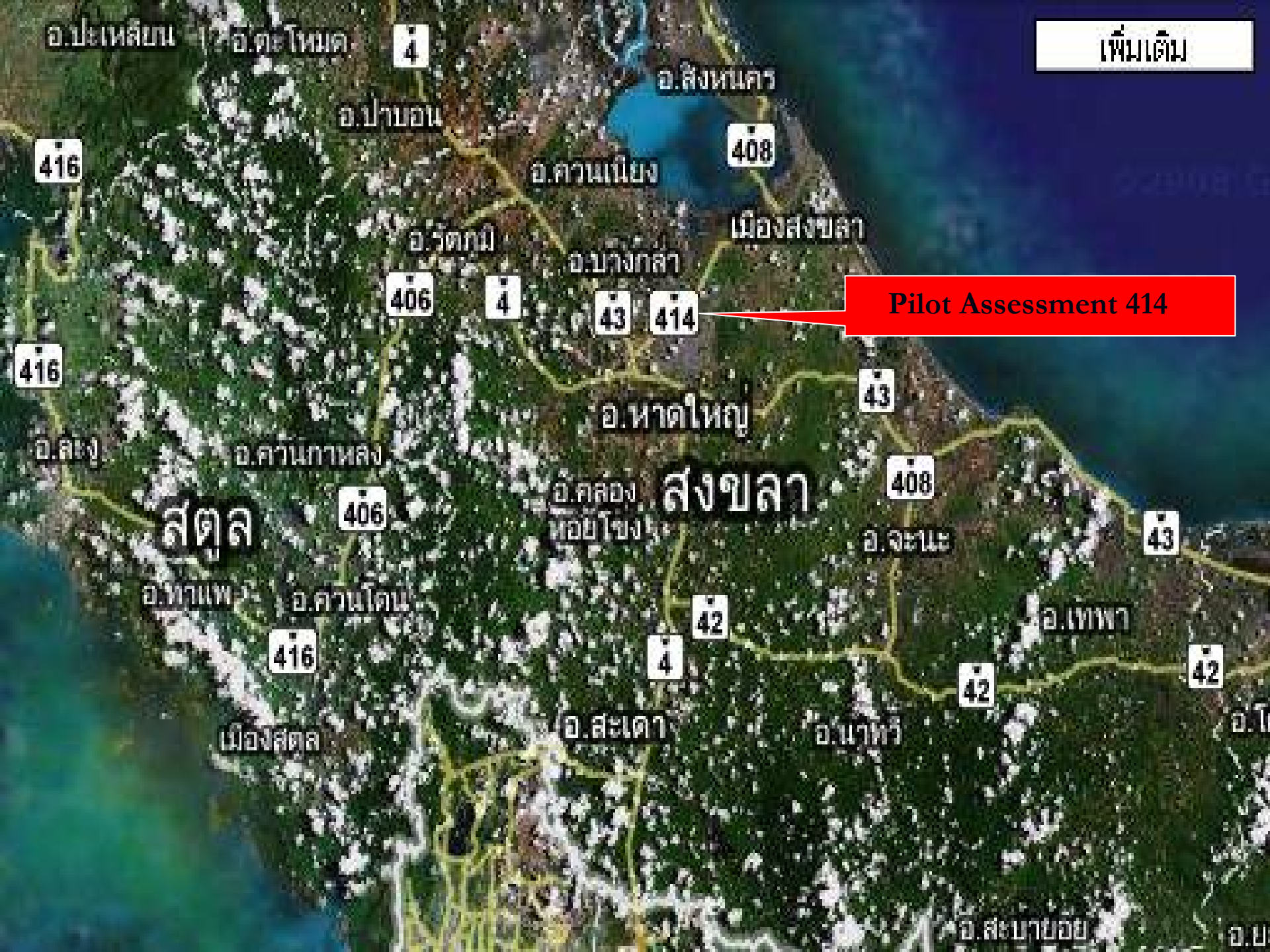
**Pilot Assessment of
Safety of Highway Route
414 in Songkhla Provinces**



13°02'14.69"เหนือ 101°37'59.52"ตะวันออก

ข้อมูลจัดทำขึ้นเมื่อ 1701 31 60.

เพิ่มเติม



Pilot Assessment 414

Road accidents statistic on Songkhla highways

	No. Crashes	No. Fatalities	No. Injuries
2006	180	26	202
2007	211	70	289
2008	215	36	270
2006-2008	606	130	761

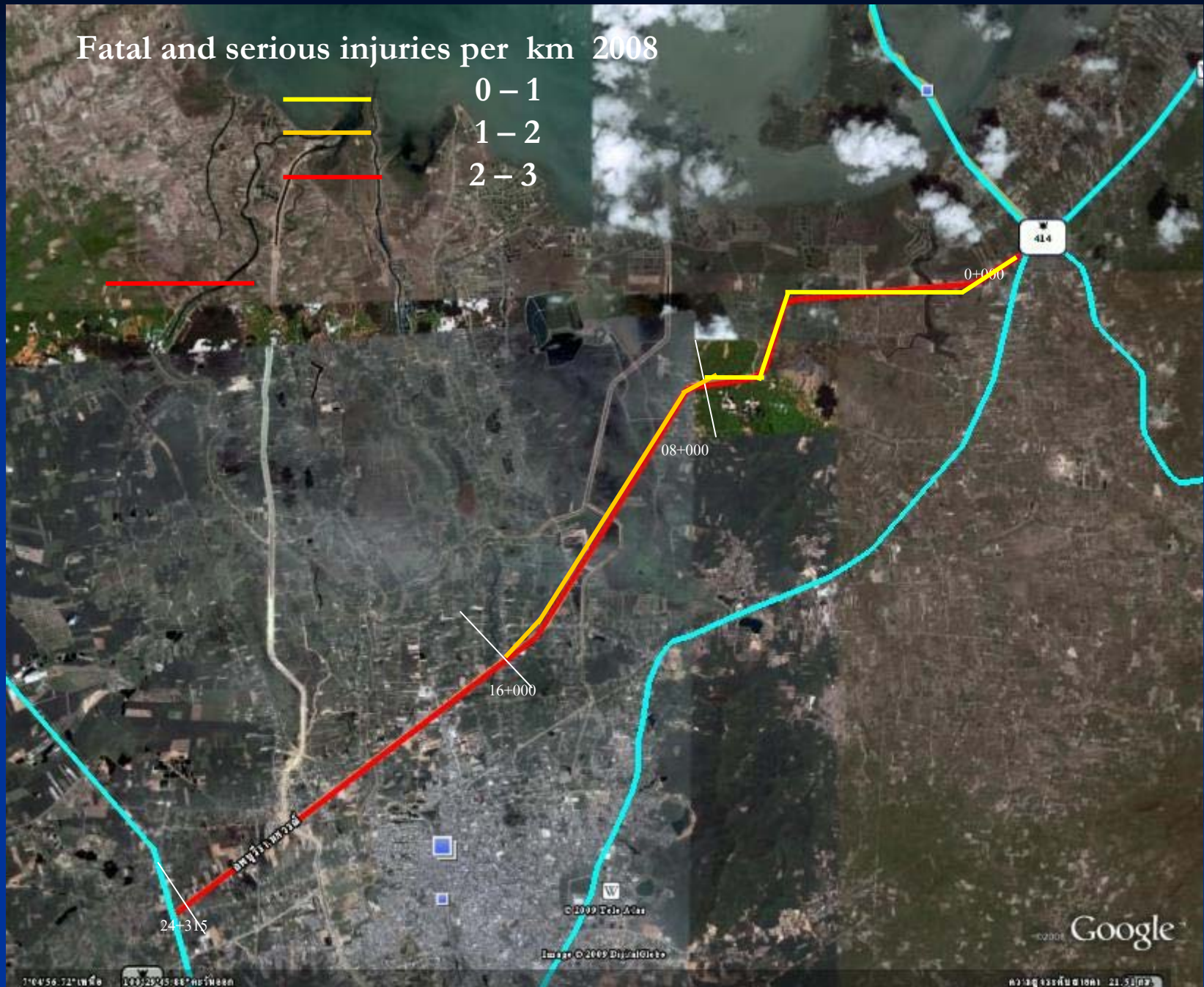
Source: Songkhla highway district authority 2009

Road accident statistic on highways no.414 (2008)

	No. Crashes	No. Fatalities	No. Injuries
Songkhla Highways	215	36	270
Route 414 segment 04140101	35	9	24

Source: Songkhla highway district authority 2009

Fatal and serious injuries per km 2008



Star Ratings

Highway Route 414 in Songkhla Provinces



Poor alignment

Poor roadside

Narrow sealed shoulders

Poor skid resistance

CONCLUSIONS

- The paper presents the preliminary study to assess the safety of highways under the jurisdiction of the Department of Highways. The pilot study develops a system which uses two different protocols for showing the safety level of a highway. It models on the method used by the European Road Assessment Program (EuroRAP),

Thank you
for your attentions



Source: www.sanook.com