

Traffic Safety Education and Information Campaign Activities in Indonesia

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1 Introduction

1.1 Geographic, Demographic, and Economic Backgrounds

Indonesia constitutes the largest archipelago on Earth, covering an area of around 1.9 million square kilometers with over 17,000 islands, only 6,000 of which are inhabited. The country has the world's fourth-largest population, which mainly resides on the five main islands of Sumatra, Java, Borneo, Celebes, and Papua. According to the population census of 2010, Indonesia has a population of over 230 million (see Table 1).



Figure 1. Map of Indonesia

Table 1. Indonesia's Population & Economic Census (2010)

| Region | Population (persons) | GRDP/cap* (IDR '000) | Land Area (sq. km) | Density (persons/km ²) |
|------------------------------------|-------------------------|-------------------------|-----------------------|---------------------------------------|
| Western Indonesia | 191,132,278 | 9,695.87 | 616,011.62 | 310 |
| Sumatera | 50,630,931 | 9,244.56 | 480,793.28 | 105 |
| Java and Bali | 140,501,347 | 9,858.51 | 135,218.34 | 1,039 |
| Eastern Indonesia | 46,509,048 | 7,921.25 | 1,294,919.70 | 36 |
| Borneo | 13,787,831 | 13,804.59 | 544,150.07 | 25 |
| Celebes | 17,371,782 | 6,153.28 | 188,522.36 | 92 |
| Nusa Tenggara, Moluccas, and Papua | 15,349,435 | 4,637.36 | 562,247.27 | 27 |
| Indonesia | 237,641,326 | 9,348.56 | 1,910,931.32 | 124 |

Source: Indonesian Central Bureau of Statistics (BPS)

* At price levels as of 2000

In the geographical coordinate system, Indonesia lies between 6° north and 11° south by latitude and between 95° east and 141° east by longitude. Due to its longitudinal position, Indonesia is divided into three time zones: West, Central, and East Indonesia.

Administratively, the country is divided into 34 provinces. DKI Jakarta is the country's capital and largest city, home to over 9.5 million inhabitants. Jakarta is located on Java, the most densely populated island among the "Main Five."

In order to simplify the National Development Planning process, Indonesia was divided into two development regions: the Western Region and the Eastern Region. Sumatra, Java, and Bali all belong to the Western Region, which covers approximately 30% of the territory of Indonesia, while the rest of the archipelago is included in the Eastern Region.

In terms of Gross Domestic Product (GDP), the Western Region contributed around 83%–84% of the total IDR 2,221,603.86 billion in 2010 (at price levels as of 2000), while the Eastern Region contributed only around 16%. In terms of per capita income, people in the Western Region enjoyed slightly better economic welfare than those in Eastern Region. However, disparity in the Eastern Region was much more apparent than that in the Western Region (see Table 1). By the end of 2010, the total national average per capita income was around IDR 9.35 million; people in Western Region on average enjoyed a per capita income of about IDR 9.70 million, which was higher than the national average, but those in Eastern Region lived on an average of about IDR 7.92 million, well below the national average.

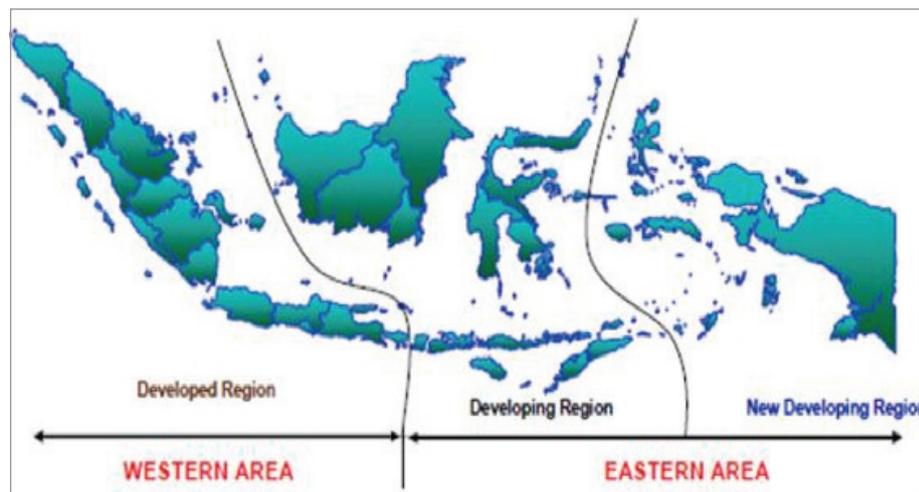


Figure 2. Development Regions in Indonesia

1.2 General Overview of Indonesian Transportation

Data from the Origin-Destination (OD) National Survey conducted by Indonesia's Ministry of Transportation in 2010 showed that people made more than 400 billion intercity trips during the year. The survey also revealed the modal shares of overall trip volume: intercity passenger trips in 2010 were dominated by land transport modes (road and railway combined), which accounted for about 86% of the total volume; maritime transport followed, accounting for about 8%, and air transport represented about 6%. A severe disparity in intermodal competition is evident here, where the roadway mode of transportation accounts for roughly three-fourths of the total trip volume.

2 Traffic Accidents in Indonesia

Traffic safety action comes from the effort to minimize the effects of traffic accidents. Law Number 22 Year 2009 on Road Traffic and Transportation (Verse 1) defines a traffic accident as a surprising and accidental incident on the road involving vehicles with or without other motorists that cause human casualties or the loss of assets. In addition, Verse 1 and Verse 2 of Law Number 22 Year 2009 state that traffic victims are those who are:

- a. killed (fatality victims);
- b. severely injured (severe injury victims); or
- c. slightly injured (slight injury victims).

Fatality victims are those who die because of a traffic accident within 30 days after the accident. Severe injury victims are those who sustain an injury and become permanently disabled or must be hospitalized for more than 30 days after the accident. Slight injury victims, meanwhile, are those who sustain an injury but do not fall into the "fatality victim" or "severe injury victim" categories.

Technically, a traffic accident is defined as an incident caused by a random, multi-factor event. Put simply, a traffic accident happens when all the mentioned factors converge in one spot. Thus, it is difficult to predict where and when an accident might happen.

2.1 Traffic Accident Factors

In general, there are four main factors that cause traffic accidents: road users/humans, vehicles, roads, and environment. Accidents occur not only because of single, isolated factors but also because of interactions among various factors.

These factors are normally related or dependent upon one another in a given traffic accident. However, knowing the main accident factor can help define ways to decrease the number of traffic accidents. Based on Ministry of Transportation data, the factors behind traffic accidents in Indonesia fall into in four groups: road users/humans, vehicles, roads, and environment, as shown in Table 2.

Table 2. The Factors behind Traffic Accidents in Indonesia, 2000–2010

| The Caused Factor | Description | Contribution (%) |
|-------------------|---|------------------|
| Road Users/Humans | Carelessness, fatigue, lack of skill, drunkenness, high speed, proximity to other drivers, pedestrian error (jaywalking, etc.), animal disturbances | 93.52 |
| Vehicles | Flat tires, brake system disorders, steering system disorders, released gears, dysfunctional light systems | 2.76 |
| Roads | Intersections, narrow roads, uncontrolled access, unclear street signs, lack of speed limit signs, slippery roads | 3.23 |
| Environment | Mixed traffic of fast vehicles and slow vehicles, interaction/mixing among vehicles and pedestrians, ineffective controls/law enforcement, slow emergency responses | 0.49 |

Source: Directorate General of Land Transportation, Ministry of Transportation

2.1.1 Road Users/Humans

Humans as motorists are affected by both physical and psychological factors. These factors demand attention as they represent potential accident factors. Motorist behavior is a product of the interaction between human factors with others, including their relations with vehicle factors, road factors, and environment factors. Physical and psychological factors include the following

Table 3. Physical and Psychological Factors

| Physical Factors | Psychological Factors |
|-----------------------------------|-----------------------|
| Nervous system | Motivation |
| Eyesight | Intelligence |
| Hearing | Knowledge/experience |
| Other senses | Emotion |
| Impairment (fatigue, drugs, etc.) | Maturity |
| | Habits |
| | Emotional stability |

Source: Directorate General of Land Transportation, Ministry of Transportation

The combination of a driver's physical and psychological factors produces a time reaction that represents the driver's final reaction to a driving disturbance, measured in time (seconds). The desired result is to avoid the accident. The other factors that have strong influences on time reaction are:

- Fatigue caused by a lack of sleep, straight lines on flat roads, and CO leaking from exhaust pots, which decrease the time reaction; and
- Vehicle lights, physical/mental deficiency, medicine, and liquor, etc.

In order for motorists to be able to drive safely, the motorist has to have clear eye vision, or visual acuity. This is related to the driver test, which measures the ability to identify still objects and direction symbols. The result of driver test does not indicate driving ability, particularly in critical conditions. Other measurements, such as dynamic view, perception, and recovery percentage from glare are probably more important, but they are not tested. Visual acuity changes as a person ages.

Traffic accidents are also influenced by motorist age. Data analysis by Directorate General of Land Transportation, Ministry of Transportation shows that the 16–30 age group is the biggest contributor to traffic accidents, accounting for about 56% of the total. Of that group, the 21–25 age group is most likely to get in a traffic accident. In addition, the 26–30 age group is the smallest age group in the larger 16–30 age group for traffic accidents and decreasing sharply in overall share. The age group above 40 years old has relatively few traffic accidents as maturity and discipline improves with age.

Table 4. Ages of Motorists Involved in Traffic Accidents

| Age group | Composition (%) |
|-------------|-----------------|
| 16-20 years | 19.41 |
| 21-25 years | 21.98 |
| 26-30 years | 14.60 |
| 31-35 years | 9.25 |
| 36-40 years | 7.65 |
| 41-75 years | 18.91 |

Source: Directorate General of Land Transportation, Ministry of Transportation

Meanwhile, Figure 3 shows traffic accidents victims by sex. According to the data, more than 80% of victims are male, and the rest are female. This also points to the fact that traffic accidents contribute significantly to the increasing poverty rate in Indonesia, considering that studies have shown that males are the main providers in families.

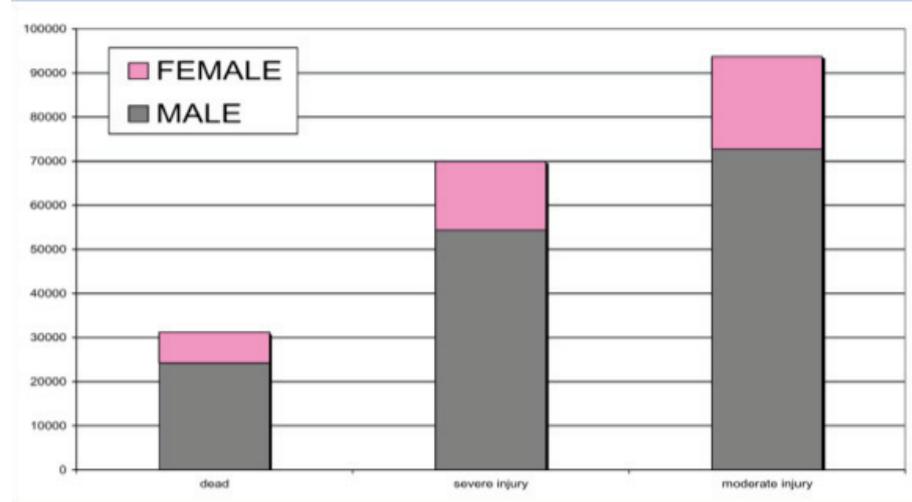


Figure 3. Traffic Accidents Victims by Sex

In addition, the National Traffic Police also identified five of the most common violations of road users in 2010. Figure 4 shows that motorcycle drivers represent the largest group of traffic law violators. Also, huge numbers of motorcycle drivers are using their motorcycles either without having or carrying a driving license.

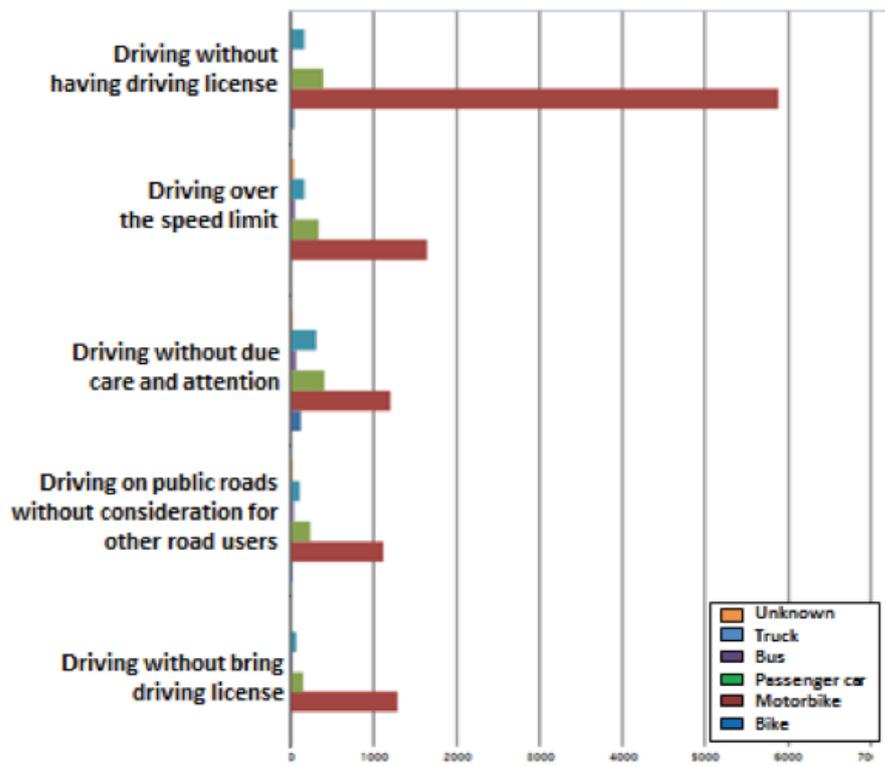


Figure 4. Five Most Common Violations in 2010

2.1.2 Vehicles

Vehicles have fewer variable characteristics than motorists do, and there are also more rules governing vehicles: heavy borders, dimensions, power, minimal conditions for brakes, and lights are just several examples. The important factors for vehicles are eye-sight, light system, instrument and warnings, brakes, tires, vehicles stability, dimensions and weight, and power.

Vehicles with faulty brakes are common causes of "severe injury" traffic accidents, but the available data does not provide enough information to make a detailed and accurate analysis because the writing system is insufficient. Besides indications for brakes, there are still plenty codes given (generally via coding lamps) that are often ignored because they are probably malfunctions. Spotlights with enhanced power might also cause too much disturbance for other motorists coming from the opposite direction, and adding more lights might confuse other motorists.

In relation to traffic safety, vehicles on the road are supposed to have proper certification published by the local transportation agency before being operated. Improper vehicles should not be used to load passengers or objects. The risk of accident is quite high, so law enforcement needs to set strict rules for lawbreakers.

2.1.3 Roads and Environment

Based on Ministry of Transportation Data, the road environment can influence traffic accident probability. The four main road environment factors influencing traffic accidents are:

- Land use and its activity (crowded areas and quiet places where motorists slow down or vice versa);
- Weather, air, and seasonal probabilities such as the rainy season and fog, etc.;
- Facilities on side roads (road signs, etc.);
- Traffic flow and traffic characteristics, volume, vehicle type, and vehicle composition (which have a strong effect on journey speed).

Road conditions represent one possible traffic accident factor. However, most of the factors come back to the humans using the roads. For example, experts design network systems and road infrastructures based on how they influence road user behavior and how they might decrease or prevent actions that disturb traffic safety.

2.2 Traffic Accident Data in Indonesia

WHO data shows that, in the last two years, traffic accidents are the number three cause of death in Indonesia after heart disease and TBC. WHO data from all over the world in 2011 also shows that 67% of all traffic accident victims were in the productive age from 22 to 50 years old. Annually, there are about 400,000 victims under 25 years old killed on the road, with an average of 1,000 children and teenagers dying every day. Moreover, traffic accidents are the main cause of death in the world for people ages 10 to 24.

Meanwhile, modern societies perceive transportation as a derivative need, as a result of economic activities, society, and so on. Even in macroeconomic analyses, transportation is an economy backbone at the national, regional, and local levels. In that sense, transportation accidents play a significant role in all fields of social life.

Data from Indonesia shows an increase in the number of vehicles, suggesting that human error has become the main factor behind traffic accidents. Indonesian National Police data shows that in 2012 there were 117,949 accidents with 29,544 fatalities.

Table 5. The Number of Accident, Fatalities, Severe Injuries, Light Injuries and Material Loss in Indonesia, 2000 - 2012

| Year | Number of Accidents | Fatalities (persons) | Severe Injuries (persons) | Light Injuries (persons) | Material Loss (Million IDR) |
|------|---------------------|----------------------|---------------------------|--------------------------|-----------------------------|
| 2000 | 12,649 | 9,536 | 7,100 | 9,518 | 36,281 |
| 2001 | 12,791 | 9,522 | 6,656 | 9,181 | 37,617 |
| 2002 | 12,267 | 8,762 | 6,012 | 8,929 | 41,030 |
| 2003 | 13,399 | 9,856 | 6,142 | 8,694 | 45,778 |
| 2004 | 17,732 | 11,204 | 8,983 | 12,084 | 53,044 |
| 2005 | 91,623 | 16,115 | 35,891 | 51,317 | 51,556 |
| 2006 | 87,020 | 15,762 | 33,282 | 52,310 | 81,848 |
| 2007 | 49,553 | 16,955 | 20,181 | 46,827 | 103,289 |
| 2008 | 59,164 | 20,188 | 23,440 | 55,731 | 131,207 |
| 2009 | 62,960 | 19,979 | 23,469 | 62,936 | 136,285 |
| 2010 | 66,488 | 19,873 | 26,196 | 63,809 | 158,259 |
| 2011 | 108,696 | 31,195 | 35,285 | 108,945 | 217,435 |
| 2012 | 117,949 | 29,544 | 39,704 | 128,312 | 298,627 |

Source: Indonesian National Police (2013)

While the young and people of productive ages account for a large portion of accidents, a majority of accident cases affect poorer individuals who ride motorbikes and public transportation. Different data from the Coordinating Ministry for People's Welfare mentioned that motorist accidents reached 120,226, or 72% of all accidents, in 2012. The social effect of traffic accidents also stems from increasing the population of poor people in Indonesia, especially those widowed or without a family breadwinner.

In general, traffic accidents are caused by factors such as human error, road conditions, and improper vehicles and law enforcement. Based on the Indonesian Transportation Outlook in 2013, there are four factors that cause traffic accidents: transportation infrastructure, transportation facilities, human error, and nature. Of these four factors, however, human error has become the main factor of traffic accidents. In addition, public awareness of traffic is needed, especially for people in their productive ages.

3 Traffic Regulations in Indonesia

3.1 Law Number 22 Year 2009 on Road Traffic and Transportation

The legislative framework for road safety in Indonesia is primarily provided by Law Number 22 Year 2009, which concerns road traffic and transportation. Generally, Law Number 22 Year 2009 aims to develop and organize a secure, safe, orderly, and smooth land transportation system through:

- The movement of vehicles, people, and/or goods on roads;
- The use of traffic and road transportation infrastructure and facilities; and
- Activities related to registration and identification of motor vehicles and drivers, traffic education, traffic management, engineering, and the enforcement of traffic and road transportation laws.

Under Law Number 22 Year 2009, the Indonesian National Traffic Police Corps (INTPC) is charged with the responsibility for road traffic and transport safety. More specifically, the INTPC is charged with:

- Testing applicants and controlling licenses for driving motor vehicles;
- Motor vehicle registration and identification;
- Collecting, monitoring, processing, and presenting traffic and road transportation data;
- Traffic regulations, surveillance, escorting, and patrolling;
- Law enforcement, including actions against violations and handling of traffic accidents;
- Traffic education;
- Implementing traffic management and engineering; and
- Implementing traffic operational management.

Several additional laws apply to particular issues, (e.g., provisions of Law 27 Year 2009 on narcotics, relating to how taking samples of blood and urine, etc., is relevant to addressing driving under the influence).

3.2 Presidential Instruction Number 4 Year 2013 on the National Plan for Traffic Safety

In an effort to strengthen the coordination on traffic safety and also implement UN resolution No. 64/255 (March 10, 2010) about Improving Global Road Safety through the Decade of Action for Road Safety 2011–2020, the President of the Republic of Indonesia assigned 12 ministers with police chiefs, governors, mayors, and regents in Indonesia to oversee the Decade of Action for Road Safety stated in Presidential Instruction Number 4 Year 2013.

Traffic Safety Action includes road safety action in Indonesia based on Presidential Instruction Number 4 Year 2013 with three main purposes:

- Running global, regional, and national platforms to decrease the number of road accidents through the “Decade of Action for Road Safety in the Republic of Indonesia” (2011–2020);
- Legalizing and launching the “National Traffic Safety Planning in the Republic of Indonesia” document; and
- Asking all parties to contribute to decreasing the number of accident victims.

3.3 Indonesian driving license Regulations

People must have an Indonesian driving license, a legal document issued by the Indonesian National Police, before they can drive a motor vehicle. The general requirements for a license in Indonesia are to be at least 17 years old (for A-class licenses; different age requirement exist for each class), pass the theory examination, and pass the practical examination.

Below are the requirements for an Indonesian driving license under Law Number 22 Year 2009:

- a. Age
 - 17 years old for the issue of a driving license in class A, C, or D
 - 20 years old for the issue of a driving license in class B1
 - 21 years old for the issue of a driving license in class B2
- b. Administration
 - Present a legal ID card
 - Fill in the application form
 - Submit fingerprints

- c. Health
 - Be in good health and physical condition according to a doctor's check-up form
 - Be physically and mentally healthy and pass the psychological test
- d. Test and examination
 - Theory examination
 - Practical examination or examination of driving simulator skills

4 The National General Plan for Traffic and Road Transportation Safety

The National General Plan for Traffic and Road Transportation Safety (Rencana Umum Nasional Keselamatan 2011–2035 (RUNK)), released on 11 May 2011, reflects the goals outlined for the UN Decade of Action for Road Safety. Indonesia organized national events to launch the RUNK and used the opportunity to advocate for increased attention to the road safety issue. The RUNK estimates that the annual social cost of traffic accidents is at least 3.7% of the Indonesian Gross Domestic Product (the total GDP is approximately Rp. 831 trillion or US\$ 800 billion). The RUNK has identified five pillars on which to build road safety and traffic enforcement policies, using the Global Decade of Action for Road Safety 2011–2020 as a direct foundation:

- a. Pillar 1 relates to Road Safety Management. There are number of activities envisaged and undertaken under this Pillar, including:
 - Establishing a Forum on Road Safety at the executive government level (enacted in Law Number 22 Year 2009);
 - Implementing new government regulations to regulate road security and road safety;
 - Including provincial and regency/city governments (all levels of government are to take an active role in road safety);
 - Targeting the business sector and civil society to take more responsibility for remedial measures aimed at improving road safety and to promote road safety information; and
 - Bringing leaders in Indonesian society, such as imams and other religious leaders, into the campaign on road safety.
- b. Pillar 2 concerns Safer Roads. Specific program actions have been identified, including projects to provide:
 - Safer roadways;
 - Safer road planning and construction (including road furniture); and
 - Safer road environments.
- c. Pillar 3 concerns Safer Vehicles. There are a number of activities envisaged under this Pillar, but important points for vehicle occupant safety to consider are that:
 - Legislative reform needed to make the use of rear seat belts mandatory; and
 - The mandatory wearing of seat belts in the front seats of vehicles has only been in force in Indonesia since 1993 (via Law 14 Year 1992, as later revised by Law Number 22 Year 2009).
- d. Pillar 4 concerns Safer Road Users. There are a number of activities envisaged and undertaken under this Pillar, including:
 - Indonesia Road Safety Week, initially at a limited number of provincial levels in 2010 and 2011, but to be extended to all provinces and to regencies and cities from 2012 to 2020;
 - Increasing government agency participation;
 - Increasing public participation; and
 - Increasing corporate participation.

- e. Finally, Pillar 5 relates to Post-Crash Care. The response and timing of the actions of police, emergency services, healthcare, and insurers are important in the event of an accident. In the operation of the road transport system, accidents will occur as road users are fallible and make mistakes.

5 Traffic Safety Actions in Indonesia

The central message applied to traffic safety action is "Time for Action." There are many efforts geared toward attaining the objectives of traffic safety action; training, campaigns, brochure distribution, banners, stickers, traffic parks, signatures on traffic safety commitment cards, and the inauguration of safety patrol schools are several examples. The activities mentioned above are divided into categories like socialization, campaigns, law enforcement, education, and system development.

5.1 Socialization

Social activities for Traffic Safety in Indonesia running in 2012-2013 were:

- Face-to-face traffic safety socialization in October 2012;
- Traffic Safety Pioneer 2013;
- Traffic safety campaign for the Indonesian Army on March 14, 2013;
- The "Stick Them Up" traffic sticker program on August 23, 2013;
- Safe Driving Campaign in October 2013.

The basic law governing traffic safety is Law Number 22 Year 2009, which covers Traffic and Road Transportation. Detailed information from those socialization activities are as follows:

a. Face-to-face traffic safety socialization or live meetings in October 2012

Traffic units of local police departments ran face-to-face socialization/live meetings with taxi drivers and motorbike riders. The target of this socialization activity was to make motor taxi riders and taxi drivers into pioneers of traffic safety. The socialization aimed to decrease accident numbers in Jabodetabek, make all elements known to the public, and apply traffic safety as a tag line in daily life. Face-to-face or live meetings were held in motor taxi pools, public transportation, and some offices in Jabodetabek (Greater Jakarta), which also ran banner installment projects and tag line traffic safety efforts in several spots.

b. Traffic Safety Pioneer 2013

The Traffic Safety Pioneer program, held by traffic units of regional police departments all over Indonesia, targeted students from elementary school through high school. This socialization strove to develop student awareness to encourage them to become pioneers in traffic safety. The socialization was designed to give knowledge to people of various ages and levels about unit RMTTC (Regional Traffic Management Centre). Activities included introducing unit RMTTC to students, explaining how Jasa Raharja works, providing educational videos, and socializing about traffic safety.



Figure 5. Traffic Safety Pioneer 2013

c. Traffic Safety Campaign for the Indonesian Army in March 2013

The National Police and Indonesian Army organized a traffic safety campaign for their members. This socialization aimed to reduce the number of victims with all types of injuries, including everything from light injuries to fatalities, and encourage soldiers to be traffic safety pioneers. At the heart of the program was the goal to implement global, regional, and national platforms for traffic safety to decrease the number of road accidents. The traffic safety campaign for the Indonesian Army presented traffic safety pins to Indonesian Army members (Army, Navy, and Air Force) and fostered strategic and synergistic cooperation between military and police corps related to traffic safety campaigns.



Figure 6. Traffic Safety Campaign for the Indonesian Army

d. Traffic Safety Sticker Project on August 23, 2013

The high traffic accident rate caused by recklessness, human error, and road and vehicle conditions in Bali drew the attention of the Traffic Unit of the Jembrana Police Department. In order to minimize and counteract that high traffic accident rate, the Traffic Unit of the Jembrana Police Department installing stickers on trucks in some areas in Jembrana District on August 23, 2013.

The target of this socialization was to use stickers, which are more effective and longer lasting than banners and pamphlets, to make a positive impact on road users and help minimize traffic accidents. The express purpose of the program was to make drivers of freight transportation vehicles more careful and compliant with rules. This program organized activities such as traffic safety sticker placement by officers who stuck them on passing trucks to motivate freight drivers to fasten their seat belts, check conditions and vehicles, park their vehicles in the right positions, set up safety triangles, turn on hazard lights to give warning or other indication to stop, and park on the road in emergency situations in accordance with Article 121, UU No. 22 (2009) about LLAJ (Traffic and Road Transportation). This sticker program targeted only trucks because the majority of the 126 accidents in Jembrana involved trucks with flat tires, stuck trucks, and trucks using parking on main roads.

Through August 2013 (when the program ran), Jembrana saw 126 accidents with 40 fatalities, 1 fatal injury, and 14 light injuries. Nine of the 40 deaths were caused by careless truck drivers not installing safety triangles or giving other signals to park in the road in emergencies.



Figure 7. Traffic Safety Sticker Project

e. Safe Driving Campaign in October 2013

The Indonesian police conducted a Safe Driving Campaign for Jakarta residents. The program was designed as media for stakeholders to explore traffic problems and encourage preventive action, repair, improvement, safety, security, order, smooth traffic, and knowledge sharing for young children learning to obey the rules of the road. The purpose of the campaign was to help the government decrease the fatality rate of traffic accidents and increase the traffic safety rate by building an obedient traffic culture. To do so, the program provided free entry to traffic parks for young children, shaped the Safe Driving Center (SDC) as a hub of safety information and competency standardization processing for driving license testing, school driving instructors, professional drivers, and prospective drivers.

5.2 Campaigns

Traffic Safety Campaign activities held in 2010-2013 were:

- The Road Safety Partnership Competition held on February 6, 2010;
- The Road Safety Campaign for Young Ages on October 24, 2011;
- Safe Driving on December 15, 2011;
- The Traffic Safety Campaign in March 2013;
- "I Want to Get Home Safely" on September 18, 2013; and
- Safety Touring on September 18, 2013

All the programs were based on Law Number 22 Year 2009 on Traffic and Road Transportation except for the traffic safety campaign, which was based on Law Number 2 Year 2002 on the Indonesian national police, Law Number 22 Year 2009 on Traffic and Road Transportation, and UN Resolution 64/255, No. 7, for Global Road Safety.

a. The Road Safety Partnership Competition

The Jakarta Police Department held a traffic safety care program to help road users understand the importance of road safety. Named the "Road Safety Partnership Competition for Reducing Accidents 2010," the program gathered all Traffic Units in the Jakarta Police Department area. The program began with a signature of a collective commitment to traffic safety awareness. The program was launched in the Buperta Cibubur traffic park in Jakarta on February 6, 2010.

The Road Safety Partnership Competition targeted Jakarta residents, striving to help society develop a better understanding of traffic etiquette, reduce law breaking, and reduce the number of traffic accidents. Its purpose was to socialize Law Number 22 Year 2009 on Traffic and Road Transportation as part of a traffic safety campaign to encourage society to care about traffic.

Besides that, the Road Safety Partnership Competition also organized a drive to collect signatures from stakeholders in traffic safety in Greater Jakarta (Jakarta, Depok, Bekasi, and Tangerang) and road users such as school safety patrols, a land transportation operator organization (Organda), motorbike clubs, car clubs, and the police.



Figure 8. Traffic Safety Partnership Competition

b. Road Safety Campaign for Young Ages

The Road Safety Campaign for Young Ages was held by the Astra Honda Foundation (YAHM) and the International Association of Traffic and Safety Science (IATSS) alumni in Indonesia. The program drew 250 participants from 20 kindergartens in North Jakarta on October 24, 2011. Designed to foster comprehension of traffic safety awareness at a young age and contribute to shaping a new generation that is aware of traffic rules and

traffic safety, the campaign focused on ensuring comprehension in a good and safe way for early ages to cross the road safely by themselves. A kindergarten competition to see who could cross the road safely was also a part of the road campaign. The AHM Foundation also made a joint venture with the International Association of Traffic and Safety Science (IATSS) to organize training activities and traffic safety education (PPKL) for 100 kindergarten teachers in North Jakarta and Bekasi.

c. Safe Driving Program

A safe driving program for elementary, junior high, and high school students in Jakarta, Cilegon, and Cibitung was held by metal company BlueScope Steel to make students into agents for changing social behavior on the road. The core purpose of the effort was to increase society's comprehension of traffic safety, precisely among groups around BlueScope offices and factories (located in some regions in Indonesia). This program also launched a SMARTROADS program and continues to manage traffic safety socialization. The campaign was held on December 15, 2011, in Bekasi.

d. Traffic Safety Campaign for Students

A Traffic Safety Campaign was held by Traffic Units of Regional Police Departments, targeting students from kindergarten, elementary, junior high, and high schools in Indonesia. The campaign aimed to cultivate a traffic-compliance culture and encourage cooperation between Traffic Units and schools to underline the importance of traffic safety on the road.



Figure 9. Traffic Safety Campaign Activities for Kindergarten Students

The purpose of the safety campaign was to provide information about discipline on driving for students, campaign traffic safety, and Law Number 22 Year 2009 on Traffic and Road Transportation. Program activities helped socialize the law, promote safe riding, give education to students about traffic compliance culture on the road (Polsana program), and introduce traffic signs and other traffic facilities.

e. I Want to Get Home Safely

Many institutions would like to improve the worrying traffic conditions in Indonesia. The list of interested groups includes everything from the Indonesian police, which makes many suggestions, to companies determined to decrease the number of deaths on the road.

One of them is Autocillin-Adira, an insurance pioneer, which created a safety campaign called "I Want to Get Home Safely." The program has been running since 2010, and a campaign event on September 18, 2013, focused on changing behavior.

The "I Want to Get Home Safely" campaign is held by PT. Adira Insurance Dinamika and

regional police departments and targeted at road users in Jakarta. Striving to create safe roads by promoting positive behavior on the road, the campaign invites society to support traffic safety programs as part of a larger commitment to getting loved ones home safe and keeping them out of traffic accidents. This program revolves around murals (wall graffiti) in 15 road spots in Jakarta and socializes to 1,500 Blue Bird drivers (taxi drivers) in 7 pools. In addition, the program also commemorated The Day of Remembrance for Road Traffic Victims with the WHO, Ministry of Transportation, and National Geographic Indonesia.

Moreover, PT. Adira Dinamika plans to collaborate with the Traffic Unit of the Jakarta Police Department to socialize traffic safety messages on banners throughout Jakarta. As an insurance company, PT. Adira Dinamika cooperates with Dompot Duafa to train accident victims in making peg leg and banner installments to spread traffic safety messages in 100 SPBU Pertamina and on four highways.



Figure 10. Activities from the “I Want to Get Home Safely” Campaign

f. Safety touring on September 18, 2013

A safety campaign touring program was held by the Automotive Journalist Forum (FOR-WOT) and the Jakarta Police Department for road users in Jakarta on September 18, 2013. The program aimed to make automotive journalists into police partners as safety pioneers in driving activities. The purpose of the campaign was to invite communities active in safety campaigning. The program is held together with safety riding training journalists and communities in several regions, a traffic safety talk show, and pin embedding and campaigns aimed directly at other road users through orderly convoy and the distribution of masks to the traffic police .



Figure 11. Activities from the Safety Touring Campaign

5.3 Law Enforcement

One of the law enforcement programs on traffic safety held in Indonesia is E-Traffic Law Enforcement Testing. Based on Law Number 22 Year 2009 on Traffic and Road Transportation, the program started on September 26, 2012, under the direction of the Jakarta Police Department. The program focuses on e-traffic testing law enforcement to improve traffic conditions, control drivers who break the law, and decrease traffic accidents for the community of Sudirman-Thamrin, Jakarta. This program installs CCTV equipment in Sudirman-Thamrin to capture images of people breaking the rules; the police then send police tickets to the offenders.



Figure 12. Some Law Enforcement Activities in Jakarta (Indonesia)

5.4 Traffic Safety Education

One of the traffic safety programs in Indonesia is Police Go to Campus, which was last held on March 8, 2012, based on Law Number 22 Year 2009 on Traffic and Road Transportation. This program was held by the Traffic Unit of the Jakarta Police Department for Indonesian Islamic University (UIN) students. Hoping to reach young generations who obey the rules, care about safety, and eventually become traffic safety pioneers, the program socialized Law Number 22 Year 2009 on Traffic and Road Transportation and offered a traffic safety panel discussion from police to university students.

In this program, the Traffic Unit of the Jakarta Police Department presented details of current traffic problems in greater Jakarta and explained traffic violations from the perspective of traffic factors that cause undisciplined behavior among road users. The Jakarta Police Department has long taken various measures to solve these problems. One of the efforts involves doing road safety campaigns by looking to a new generation that is more aware of traffic safety.



Figure 13. Activities from Police Go To Campus

5.5 Integrated Road Safety Management System Development

The Indonesian IRSMS has been independently developed as a practical system to address road trauma and improve road safety. For this system, the following elements were considered to be necessary to underpin effective management, target setting, the development of countermeasures and interventions, and the evaluation of actions taken, as shown in Table 6.

- The creation of a legislative framework to regulate the road transport system
- Access to valid and reliable data (the practical facts) concerning road trauma and behavior
- A belief that change can happen

Table 6. Elements considered necessary for an Integrated Road Safety Management System

| Element | Description |
|---------------------------------|---|
| A framework | The legislative framework for an Integrated Road Safety Management System in Indonesia is provided by Law Number 22 Year 2009, relating to Road Traffic and Transportation, and related laws. Law Number 22 Year 2009 establishes INTPC as the lead institution for road safety. |
| The practical facts | The data on traffic accidents are provided by an Accident Information System that specifies who was involved; what happened immediately prior to, during, and after the accident; where the accident occurred; when the accident happened; how the accident took place; and, why the accident happened. |
| A belief that change can happen | The moral compass for traffic accident reduction and improvement to road safety is provided by the Safe System approach, as expressed through the strategic plan (RUNK 2011–2035) and action plans developed to address and guide road safety and traffic policing efforts. |

Source: Directorate General of Land Transportation, Ministry of Transportation

The IRSMS in Indonesia predates the new international standard ISO 39001:2012 “Road traffic safety (RTS) management systems – Requirements with guidance for use.” The ISO 39001 standard, developed to support the United Nations’ Decade of Action for Road Safety 2011–2020 and published in late 2012, sets out the minimum requirements for a road safety management system. Despite being developed earlier than the ISO 39001 standard, IRSMS incorporates all of the necessary elements for a road traffic safety management system and is, in fact, an exemplar for the implementation of the standard.

5.5.1 Background to the IRSMS Project for a National Road Safety Management System

The Strategic Roads Infrastructure Project (SRIP) is supported by a loan from the World Bank (IBRD Loan 4834–IND) and has been implemented by the Directorate General of Highways within the Ministry of Public Works since late 2007. Following Law Number 22 Year 2009, the National Traffic Police took over the responsibility for developing IRSMS. Project implementation is expected to be completed by mid-2013, with a consultant providing technical assistance to IRSMS. The SRIP Project includes a Road Sector Institutional Development component consisting of:

- IRSMS-1, to develop an integrated Road Safety strategy and long-term plan, including an institutional framework (via the Directorate General of Land transport (DGLT), later cancelled); and
- IRSMS-2, to develop a pilot integrated road accident database/analysis system and establish self-sustaining personnel development procedures for the Indonesian National Traffic Police Corps (INTPC).

Within the INTPC framework, the IRSMS Project has delivered the following key achievements:

- A web-based accident information and analysis system have been developed with a simple user interface for reporting and retrieving accident information;
- A new Accident Record Form has been developed, and tablets using open-source Android operating systems are being procured to improve both data quality and input times;
- An AIS User Manual for data entry and basic reporting has been published;
- From 1 September 2012, accident data collection, coding, entry, and processing in the IRSMS server has been extended to the whole of Indonesia (a total of 445 Polres [police districts] of 31 Poldas [provincial offices]);
- Daily accident reports are available to the Police Operations Department;
- Presentations on the Accident Information System (AIS) and training on the use of the new system and Accident Record Form have been provided to more than 430 police officers from the 31 Poldas, as well as to stakeholders and to police officers undertaking executive training for senior positions; training for an additional 500 personnel is planned for the first half of 2013;
- Two workshops on stakeholder data system requirements have been held;
- Training courses in road safety interventions have been developed, incorporating:
- Development of a Road Safety Data Collection Manual;
- Development of a Data Analysis and Applications Manual;
- Procurement of equipment for INTPC use in speed enforcement, drink drive enforcement, drug driving enforcement and overweight vehicle enforcement;
- Development of Standard Operating Procedures (SOPs) for traffic enforcement by INTPC;
- Development of local road safety implementation plans for INTPC Polda (provincial offices) and Polres (police districts) to conduct targeted operations based on the evidence from the IRSMS accident information system and local stakeholder consultation;
- A series of media campaigns is being made for release in early 2013, including television commercials, newspaper advertisements, billboards, and Internet media. The campaigns will focus on the key priority means of reducing casualties based on the evidence from the IRSMS accident information system and follow and support the themes of police traffic enforcement;
- An IRSMS public website (www.korlantas-irsms.info) has been established, with web-pages in both Indonesian and English that explain the system and provide additional background information.

Continued institutional development, training, and capacity development in the present project will be closely linked to the development of the IRSMS, both under the SRIP Project through mid-2013 and beyond. In particular, much attention will be devoted to address the technical and institutional causes for the underreporting of road accidents.

5.5.2 The IRSMS Accident Information System

IRSMS is designed to provide valid, reliable, and verified data on road accidents in Indonesia. Information about the circumstances of an accident is the basis for all targeted road safety interventions. For example, access to comprehensive, reliable, and accurate road accident data makes it possible to identify specific roads, vehicles, and road users that need to be targeted with road safety interventions.

Under Law Number 22 Year 2009, the INTPC is responsible for accident data collection and investigation. A user manual was developed to explain the methods and procedures that the INTPC needs to use to collect and analyze accident data. The user manual provides basic and practical guidance for police and other stakeholders when entering accident data and utilizing the information on the database system. At present, Indonesian and English versions of the user manual are available. The AIS User Manual Version 1.2 describes the accident input process for reporting a road accident under the IRSMS Accident Investigation System [17]. Further development for system users will address issues of data verification (validation), general data analysis and reporting, usability issues, and administration of the Accident Investigation System.

Furthermore, a recently approved expansion allows for a broadening of the scope of the project in two pilot provinces to include electronic data collection for accident reporting, system design automation, and digital transmission using tablet computers onsite to determine the automatic GPS location of the accident, document the scene, and gather relevant photographs and witness statements (if available).

At present, police collect data by filling in a notebook entry or a paper accident report form at an accident site. The information about the accident is then later entered onto the database at the police station. The location of the accident is registered in geographical coordinates, but this has occasionally been problematic as Indonesia straddles the equator, making it easy to confuse north/south latitude coordinates. Output from the system is designed to serve in prosecution, investigation, planning, and accident analysis purposes (for example, the system produces the main report that is necessary for court proceedings).

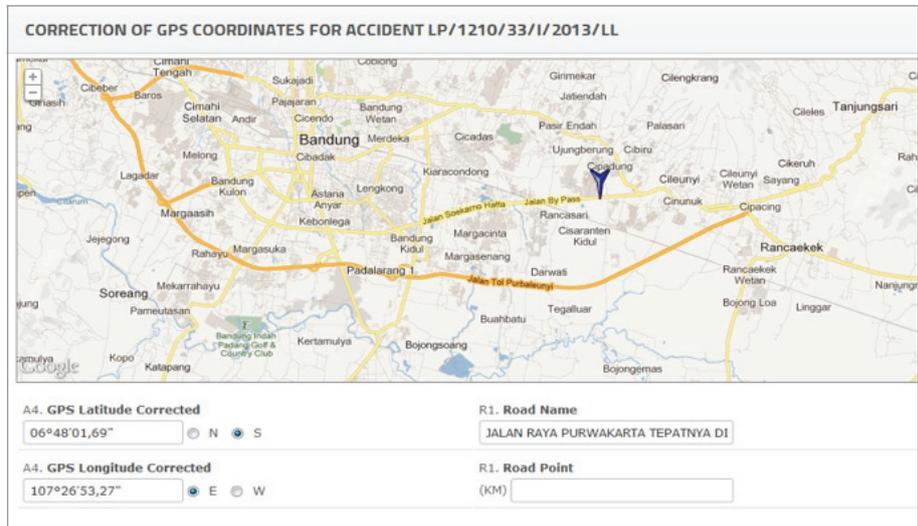


Figure 14. Screen for correcting the location of the accident.

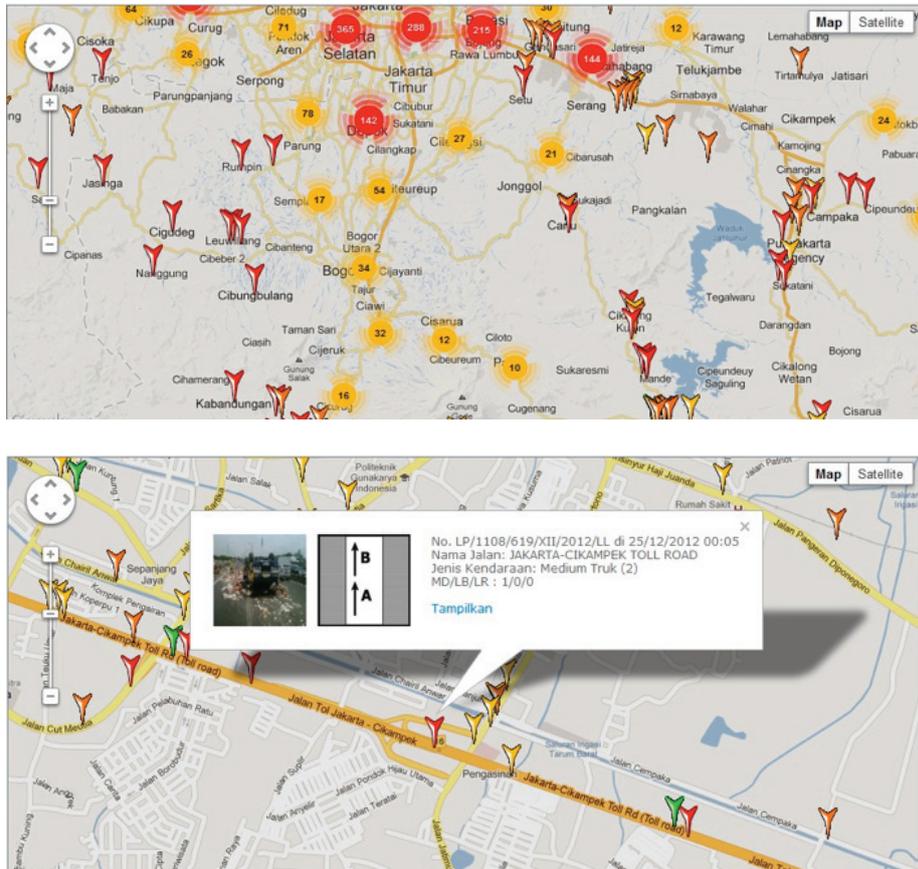


Figure 15. Zooming in on a Map and Selecting a Specific Accident

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