Towards Safer Roads

National Road Safety Plan
2020

Executive Summary
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Implementing Israel’s national road safety policy is predicated on four key conditions: the firm commitment of the government and the Knesset to the policy; establishing a strong and independent organization with the responsibility and powers to promote the issue of road safety from a multisystem perspective and to formulate a national road safety plan; allocating a dedicated and permanent budget to enable multiyear implementation of the plan; commitment to the plan and its goals on the part of the strategic partners.

On July 17, 2005, the Government of Israel decided (Decision No. 3917) to adopt and approve the principles of the Committee for the Preparation of a National Multiyear Road Safety Plan report (“the Sheinin report”). The recommendations of the Sheinin report were based on the economic feasibility of investing in road safety and focused on four aspects: goals, responsibility, independence and financial sources.

The government’s decision embraced these elements, and the plan was set into motion. The National Road Safety Authority Law (Temporary Order), 5766-2006, was enacted, and pursuant to the Law, the National Road Safety Authority (“the Authority”) was established in 2007. The Authority set itself the goals of leading national road safety strategy; serving as a national information center; directing, coordinating and controlling partners’ activities towards the development of a safe driving culture, and reducing the number of traffic accidents and traffic fatalities in Israel.

At the same time, there has been a large gap between the government’s decision and its actual implementation, reflected primarily in areas related to authority and budget. This situation is hindering the promotion of road safety in Israel.

To advance the issue of road safety in Israel, the Authority developed a national road safety plan (“the National Plan”). The National Plan is based on the changes that have occurred in the field of road safety management in the last decade, as reflected in various plans and documents such as the Sheinin report, the National Road Safety Authority Law (Temporary Order) of 2006, the establishment of the National Road Safety Authority in 2007, the multiyear plan of the National Road Safety Authority for the years 2008-2012, and the study titled “Examination of Plans for the Promotion of Road Safety in the World’s Ten Leading Road Safety Countries.”

To achieve the goals set in the plan, several preliminary steps need to be taken in the immediate term:

- Strengthening the independence of the National Road Safety Authority and consolidating its authority as the leading road safety agency in Israel.
- Allocating a dedicated and permanent multiyear budget to meet the requirements for implementing the program, at a minimum of NIS 550 million per year.
- Approval and adoption of the plan by the Government of Israel.
- Full commitment of the bodies involved in road safety to the plan, its implementation and its incorporation in the multiannual and annual work plans of those bodies, namely: the Ministry of Transport and Road Safety, the Ministry of Finance, the Ministry of Education, the Ministry of Health, the Ministry of Justice, the Israel Police, the Courts Administration, the local government and local authorities, the Israel National Roads Company, the firefighting and rescue services, Magen David Adom and the third (non-profit) sector.
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1. Goal

As adopted by the Government of Israel in 2005, the goal is to reach a level of road safety on par with the leading road safety countries, within ten years. Achieving this goal would mean a reduction in the number of traffic fatalities to less than 360 fatalities per year by 2010, and less than 300 fatalities per year by 2015.

The National Road Safety Authority recommends setting a target of no more than 270 fatalities per year by the year 2020.

2. Operating Principles

Implementing the National Plan calls for better and more reliable management of road safety. This necessitates focusing on safety performance indices, rather than on a narrow view of the number of fatalities, casualties and accidents in the State of Israel. Such data belong to the realm of statistically small numbers; thus, while they can serve as a national target, they cannot be used as a performance index for the management of tasks and examination of cost-benefit ratios, effective investment and the achievement of goals in the field of road safety.

The road safety management model is based on several critical components: measures or programs (according to the types of road users), safety performance indices (intermediate indices), measurement of final results, measurement of the social price of accidents and casualties, and so forth.

The action plans (such as increasing police enforcement hours) are derived directly from an analysis of the safety performance indices (e.g.: percentage of seatbelt users, percentage of drivers driving under the influence of alcohol).

The safety performance indices include:

- Road user behavior indices
- Indices relating to the national fleet of vehicles
- Road infrastructure indices

3. Main Safety Problems in Israel and Action Plans

A. At-risk populations

Pedestrians

Injury data:

In 2010, 125 pedestrians were killed in traffic accidents, which is equivalent to 1.6 pedestrian traffic fatalities for every 100,000 residents. Pedestrian traffic fatalities account for 33% of all traffic accident fatalities.
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Goal for 2020:
A decrease of 10% in the number of pedestrian traffic fatalities per 100,000 residents, equivalent to a maximum of 1.4 pedestrian fatalities for every 100,000 residents in 2020.

Main actions:
Creating a safe environment for pedestrians in urban areas, by means of infrastructure and advanced technology for road safety.
Raising awareness of accidents involving pedestrians and changing behavior patterns, through information, education and training, enforcement and legislation.

Motorcycle and moped riders

Injury data:
In 2010, 43 motorcycle and moped riders were killed on the road, equivalent to 41 riders per one billion kilometers traveled. Fatalities among motorcycle and moped riders account for 11% of all traffic accident fatalities.

Goal for 2020:
A decrease of 10% in the number of motorcycle and moped riders killed on the road per one billion kilometers traveled, equivalent to a maximum of 37 fatalities per one billion kilometers traveled in 2020.

Main actions:
Raising the level of road safety, including the adaptation of roads for motorcycle and moped riders, by means of appropriate infrastructure and the use of advanced road safety technology.
Instilling safety-conscious behavior among motorcycle and moped riders, through education and training, information, legislation and enforcement.
Increasing awareness among drivers of the need for careful driving in the vicinity of motorcycles and mopeds, through information and enforcement.

Children

Injury data:
In 2010, 44 children (ages 0-14) were killed in traffic accidents, equivalent to 1.9 child fatalities for every 100,000 children in the population. Child fatalities account for 12% of all traffic accident fatalities.

Goal for 2020:
A decrease of 10% in the number of children killed in traffic accidents per 100,000 children in the population, equivalent to a maximum of 1.7 child fatalities for every 100,000 children in the population.
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**Main actions:**
Creating a safe environment for children, by means of infrastructure and advanced technology for road safety. Increasing road safety awareness and instilling road safety skills and correct behavior, through information, education and training.

**The elderly**

**Injury data:**
In 2010, 75 elderly people (ages 65 and up) were killed in traffic accidents, equivalent to 9.9 elderly fatalities in traffic accidents for every 100,000 elderly in the population. Elderly fatalities account for 20% of all traffic accident fatalities.

**Goal for 2020:**
A decrease of 10% in the number of elderly people killed in traffic accidents per 100,000 elderly in the population, equivalent to a maximum of 9 elderly fatalities in traffic accidents for every 100,000 elderly in the population.

**Main actions:**
Creating a safe environment for the elderly in urban areas, by means of infrastructure and advanced technology for road safety. Building a support system for the elderly through safety management, training and information. Training and information activity targeting the elderly.

**Young drivers**

**Injury data:**
In 2010, 102 young drivers (up to age 24) were involved in fatal traffic accidents, equivalent to 1.8 young drivers for every 10,000 drivers in this category. Young drivers account for 19% of all drivers involved in fatal traffic accidents but for only 15% of the total population of drivers.

**Goal for 2020:**
A decrease of 10% in the number of young drivers per 10,000 drivers involved in fatal traffic accidents, equivalent to a maximum of 1.6 young drivers for every 10,000 drivers involved in fatal traffic accidents.

**Main actions:**
Improving driving skills and instilling a positive attitude towards safe driving, through education and training, information, legislation, enforcement and advanced road safety technology.
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B. Road Behavior

Use of restraints in vehicles – seatbelts and child safety seats

Usage data:

Seatbelts – An observational survey conducted by the National Road Safety Authority in 2010 found that 96% of drivers wore seatbelts. Among vehicle passengers, seatbelts were worn by 92% of passengers in the front seat and by 70% of passengers in the rear seats.

Child safety seats – According to an observation survey conducted by the National Road Safety Authority in 2010, the percentage of babies, toddlers and children (ages 0-15) properly seatbelted was 50%, while an average of 15% were not restrained at all.

Goals for 2020:
- Increasing the use of seatbelts: Seatbelts to be worn by 98% of drivers, 95% of passengers in the front seat and 85% of passengers in the rear of the vehicle.
- Increasing the use of restraints for children (ages 0-15) in vehicles: 70% to be properly seatbelted, with only 5% not restrained at all.

Main actions:
- Increasing awareness of the importance of using restraints, through information, legislation, enforcement, advanced road safety technology and safety management.
- Inculcation of the correct use of child safety seats, mainly in the 5-8 age bracket, through enforcement, education and training.

Alcohol and driving

Usage data:
According to data of the Israel Police, in the year 2010, 2.1% of fatal traffic accidents were caused by drivers under the influence of alcohol. A telephone survey conducted in 2009 found that a majority of the public (73%) avoids driving after drinking alcohol. However, approximately one-fifth of the public (22%) indicated that they had driven after drinking alcohol, and 7% reported that they often or very often drive after drinking alcohol. About one-fifth (22%) indicated that they had driven while feeling intoxicated, and one-half of these (12%) had done so more than once.

Goal for 2020:
Adoption of a “zero tolerance” policy towards drivers in general, and at-risk populations in particular (new and/or young drivers, drivers of public and/or heavy vehicles, drivers of vehicles carrying hazardous goods),
Use of breathalyzer results as absolute and incontrovertible evidence in court.
Increasing the number of alcohol tests performed by the police relative to the total number of drivers, from 26% in 2010 to 40% in 2020.
**Main actions:**

- Increasing awareness of the dangers of driving while under the influence of alcohol, through information, education and training.
- Establishing alcohol testing procedures and raising the number of random tests by means of legislation and enforcement.

**Driving speed on urban and nonurban roads**

**Driving speed data:**

In 2010, the National Road Safety Authority conducted a survey on all types of nonurban roads, which showed that under free-flowing traffic conditions, a significant percentage of drivers do not comply with the speed limit. The level of noncompliance was demonstrated in the 85th percentile speed, which mostly exceeds the speed limit, as well as in the high percentage of vehicles that go over the speed limit. The 85th percentile estimate is used as a representative measure in a variety of contexts. In traffic engineering it is used to estimate the operational speed on a road section and to examine the correlation between design characteristics and driver behavior. It is also used for purposes of traffic law enforcement, for determining the speed limit policy on different types of roads, and more.

**Goals for 2020:**

To reduce the 85th percentile speed as well as the percentage of vehicles exceeding the speed limit on all types of roads, as set out in the table below:

<table>
<thead>
<tr>
<th>Road type</th>
<th>Speed limit (kmh)</th>
<th>Goal: maximum 85th percentile speed</th>
<th>Goal: maximum percentage of vehicles exceeding the speed limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeways</td>
<td>110</td>
<td>115 kmh</td>
<td>30%</td>
</tr>
<tr>
<td>Two-lane roads with interchanges</td>
<td>100</td>
<td>110 kmh</td>
<td>30%</td>
</tr>
<tr>
<td>Other two-lane roads</td>
<td>90</td>
<td>100 kmh</td>
<td>40%</td>
</tr>
<tr>
<td>Single-lane roads</td>
<td>80 (*)</td>
<td>90 kmh</td>
<td>40%</td>
</tr>
<tr>
<td>Urban collector roads</td>
<td>50</td>
<td>60 kmh</td>
<td>30%</td>
</tr>
</tbody>
</table>

(*) A change is planned in the Traffic Regulations to 70 kmh, which will apply to some of the roads.

**Main actions:**

- Changing behavior patterns with respect to driving above the speed limit, through education and training, information, legislation, enforcement and advanced road safety technology.
- Planning the road system so as to reduce the driving speed by means of infrastructure.
Distraction and fatigue

Distraction driving data:
Use of mobile phone during driving – A telephone survey of drivers conducted by the National Road Safety Authority in 2009 found that 72% of Israeli drivers believe that using a mobile phone without a speaker is likely, or very likely, to cause a traffic accident. Actually, there is little difference in the level of distractions during driving when using a mobile phone with or without a speaker, but in terms of public attitude, only 30% of the public believe that using a mobile telephone with a speaker is likely, or very likely, to cause a traffic accident.

Fatigue – A telephone survey conducted by the National Road Safety Authority in 2009 indicated that most of the Israeli public is aware of the danger of driving while tired. The survey found that 83% of the public believe that driving while tired is likely, or very likely, to cause traffic accidents. In face-to-face interviews conducted in 2008 on urban roads, 26% of drivers of motorcycles and mopeds reported that they had ridden that week while tired, or that they generally drove while tired, and more than one-half (54%) reported that they rarely rode when tired.

Goals for 2020:
Raising awareness of the danger of using a mobile phone with a speaker while driving, to 70% of drivers.
Raising awareness of the danger of driving while tired, to 70% of drivers.

Main actions:
• Raising awareness of the danger of using a mobile phone even with a speaker, through instruction, education and training, legislation and enforcement.
• Raising awareness of the danger of driving while tired, through information, education and training.

Use of helmets among bicycle riders

Usage data:
In an observational survey of the National Road Safety Authority conducted during October-November 2010, in which 5,245 bicycle riders (adults and children) were observed, it was found that 14% of bicycle riders in residential neighborhoods wore helmets, compared to 13% who wore helmets in city centers, 32% who wore helmets on reaching bicycle parking lots, and 26% who wore helmets in public parks and cycling areas.

Goals for 2020:
Increasing the percentage of helmet wearers among bicycle riders to 30% in residential neighborhoods and city centers, and to 50% on reaching bicycle parking lots and in cycling areas.

Main actions:
• Raising awareness of the importance of using bicycle helmets, through information, education and training.
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C. Infrastructure

Infrastructure in the urban and nonurban road system

International experience has shown that the number and severity of traffic accidents can be substantially reduced by upgrading the engineering infrastructure. It is possible to significantly lower the rate of accidents at danger spots by installing safety engineering elements. A modern and safe road infrastructure is crucial to road safety, contributing to safety in two ways: by improving driver and pedestrian functioning, and by minimizing injury in case of an accident. Driving speed also has a crucial impact on road safety, hence it is necessary to adapt the driving speed to the road conditions.

Goals for 2015:

Infrastructure – Completing the mapping of road safety conditions on urban and nonurban roads by the end of 2015. Dealing with danger spots on the urban road network, in parallel with the mapping process (the Israel National Roads Company Company deals with danger spots on nonurban roads). Implementing the European Road Assessment Programme (EuroRAP) for risk mapping of all of Israel's nonurban roads. On completion of the mapping, a realistic goal will be set for upgrading the infrastructure and adapting it to the EuroRAP standards by 2020.

Speed – Adoption and implementation of the Ministry of Transport guidelines of July 2010 for setting speed limits on roads.

D. Advanced Road Safety Technologies

Assimilation of advanced technologies in vehicles and in infrastructure

Data:

Many advanced technologies have been developed in recent years to reduce the number of traffic accidents and the damage they cause. The technology operates on five levels: minimizing human exposure to risk; reducing the impact of human failures; reducing the number of accidents caused by human failure; limiting the severity of damage in accidents; increasing the effectiveness of the enforcement system.

Goal for 2015:

Sixty percent of all vehicles imported to Israel to be tested by Euro NCAP and to have at least 4 safety stars.

Goal for 2020:

80% of all vehicles imported to Israel to be tested by Euro NCAP and to have at least 4 safety stars.
E. Safety Management

Cooperation, division of responsibility and authority among government agencies

All national road safety plans include an organizational component that allocates responsibilities and tasks among the different government agencies. Effective road safety management in Israel requires the introduction of various organizational changes at the government level, to enable implementation of safety management processes. These processes include: positioning the National Road Safety Authority as an independent supra-governmental authority overseeing road safety on all the country’s roads; the distribution of powers among the different agencies dealing with road safety; regular financing of road safety programs; organizational and economic steps to reduce the average age of vehicles on the road and encourage the use of public transportation; decentralization of powers at the level of local safety management centers, etc.

The National Road Safety Authority plans to carry out studies on Israel’s road system, with the aim of establishing suitable frameworks for the development and implementation of comprehensive and effective safety programs, as detailed below:

Coordination between central regional authorities and local authorities and allocation of tasks between them; allowing local authorities independence in developing road safety initiatives, under the supervision of the National Road Safety Authority; cooperation between interested parties in activity for the safe use of transportation systems; increasing cooperation between government authorities; generating media interest in the subject of road safety by organizations demanding an improvement in the field; increasing the involvement of the population in improving road safety; training professionals in the field of road safety; holding courses for transportation and traffic experts.
4. The Arab Sector

According to the classification of the Central Bureau of Statistics, Israeli Arabs account for 20% of Israel's population and are divided into Muslims (including Bedouins and Circassians), Christians and Druze.

The percentage of Israeli Arabs among all traffic fatalities stands at 37% – a disproportionately high rate compared to their representation in the general population, that continues to trend upwards.

Unlike other at-risk sectors of the population, in dealing with the problem of the Arab sector’s vulnerability to traffic accidents and how to overcome it, it is necessary to apply a multi-systemic and multi-disciplinary approach that takes into account the fact that this population comprises an ethnic minority, with all the special aspects and implications that this involves.

Steps must be taken to improve the road safety climate in Arab towns, through a comprehensive safety program that will address such issues as upgrading infrastructure, increasing road safety awareness, inculcating safety norms and strengthening enforcement.

The program should be based, among other things, on safety performance indices adapted to the needs of the Arab sector. This activity in the Arab sector will require massive budgeting and careful crafting of a work plan.

Conclusion:

Only an overarching process that combines full adoption of the national road safety plan with appropriate legislation and adequate budgeting will enable the realization of the goals set out in the plan and the achievement of a sustainable level of road safety on par with the world’s leading road safety countries.