

## 1 Improvement of road traffic environment

### ● Improvement of people-first walking spaces offering safety and security

The national and local governments have been pursuing the following traffic safety projects in order to actively enhance sidewalks used as school routes, residential roads, urban thoroughfares, and other areas. Designed from the “perspective of the people” these initiatives have been implemented in cooperation with local community members.

- (1) Aggressive efforts have been made to improve sidewalks in school zones etc in order to ensure the safety of children commuting to elementary schools, kindergartens, day care centers, and children's cultural facilities. Furthermore, the safety of school routes has been enhanced through the installation of push-button traffic signals and pedestrian signals, the construction of pedestrian overpasses, and the establishment of additional crosswalks.
- (2) Sidewalk construction and other preventive measures against traffic accidents have been comprehensively applied on an area wide basis through the creation of “Safe Pedestrian Areas” in districts with high incidences of casualty-producing accidents in cooperation with prefectural public safety commissions and road management agencies.  
In addition, prefectural public safety commissions and road management agencies have concertedly implemented accident prevention measures using the “Accident Prevention Manual for Residential Roads”<sup>1</sup> and other resources. Those measures included efforts to create safe, secure road spaces for both pedestrians and drivers through such improvements as controlling the speed of vehicles, clearly identifying the shape of roads and intersections to drivers, and clear demarcation of pedestrian and vehicle pathways.
- (3) Further endeavors were also made to ensure the safety and comfort of pedestrians and bicycle riders through concentrated projects in areas with a high risk of accidents involving those road users. The projects included renovation and other improvements of roads, as well as the construction of sidewalks and bicycle paths. Wide sidewalks were built whenever possible in providing more comfortable traveling spaces. Anywhere sidewalk construction was not feasible alternatives such as pedestrian and bicycle lanes were created alongside the roads.  
In order to help the elderly and disabled people lead independent, socially active lives wide even sidewalks based on the law on the promotion of the smooth movement etc of the elderly and disabled (2006, Law 91) have been actively constructed beside roads connected to train stations, public facilities, and hospitals.

Other improvements have involved: the installation of barrier-free traffic signals, construction of elevator-equipped pedestrian overpasses, pedestrian rest areas, bicycle parking lots, and parking lots with spaces for the disabled; and the elimination of utility poles beside roads when under renovation. Moreover, various projects that include the conversion of traffic signals to LED lighting and the enhancement of the visibility of road markers have been implemented to ensure the safe passage of seniors and disabled people, and to respond to the growing number of elderly drivers.

### ● Application of Intelligent Transport System

The nation has continued to pursue the implementation of an Intelligent Transport System (ITS) that incorporates advanced information technology for use in coordinating people, road use, and vehicles within one integrated system. The system is designed to enhance road safety and transportation efficiency and comfort, as well as protect the environment by reducing traffic congestion and otherwise streamlining the flow of traffic. Guided by the principles established in 1996 under the Comprehensive ITS Initiative the government has spearheaded research and development projects, field tests<sup>2</sup>, infrastructure developments, and other efforts in a collaboration with industry and academia.

<sup>1</sup> The aim of this manual is to illustrate ways of effectively implementing accident prevention measures on residential roads. It systematically presents. Procedures and other methods of improving road traffic environments etc.

<sup>2</sup> Field tests: Actual outdoor tests.

- (1) A key component of the ongoing work with the ITS has been Universal Traffic Management System (UTMS), whose aim is to ensure traffic safety and comfort through a network of advanced traffic control centers. Through use of near-infrared beacons<sup>3</sup> the envisioned system will involve the creation of control centers that will be able to establish two-way communication with individual vehicles on the road, thus providing the centers with the ability to actively and comprehensively manage traffic flow and volumes. Via this means the aim with the UTMS is to provide advanced traffic information, manage vehicular operations, and give priority passage to public vehicles, as well as reducing traffic pollution, supporting safer driving, and ensuring the safety of pedestrians. Based on the UTMS concept the nation has taken steps to improve its traffic systems and install facilities for the near-infrared beacons, which are the key infrastructural component of the UTMS.
- (2) A smart way service has been adopted incorporating a new function that enables more traffic information to be made available on wider areas, along with the control of safer driving support, sightseeing information, and distributional vehicles being achieved through a single piece of on-board equipment in addition to the functions already available through individual on-board equipment such as car navigation systems, VICS, and ETC using 5.8GHz band DSRC to date. In the service experiments have taken place on the public Tokyo Metropolitan Highway from May, 2007, with the smart way that has been actively promoted as a public road experiment for this service having been expanded to three major megalopolises as of 2008.

## 2 Dissemination and reinforcement of traffic safety messages

### ● Traffic safety education for the elderly

The government has also recognized the need to increase the traffic safety awareness of seniors through mutual edification programs involving them. Toward this end the government has supported the establishment of traffic safety clubs at seniors clubs and retirement homes, and the training of “Silver Leaders,” or seniors who can provide education on traffic safety to other seniors. It has also encouraged seniors clubs etc to take leadership roles on traffic safety within their own communities and households, and provided support for those efforts. They have included guidance being provided to help seniors clubs etc create “Hiyari Maps” (maps of near-miss spots) with the cooperation of related organizations. The Cabinet Office launched a “Hands-on Program for Promoting Safer Driving by Seniors” in order to train Silver Leaders and other seniors with community influence in providing sustained leadership in community-based driving safety education for the elderly.

The Cabinet Office has also implemented two other ongoing programs: the “Cross-generation of Children, Parents and Seniors Sharing Project,” in which people from the three different generations gather together to learn about traffic safety, and the “child-rearing and Seniors Home Visitation Project,” in which they directly visit the homes of parents raising children and seniors that have few occasions to participate in the various kinds of events and traffic safety classrooms etc in disseminating and raising awareness on traffic safety messages.

## 3 Ensuring safer driving practices

### ● Developing better and more effective measures for elderly drivers

Programs for evaluating the competency of senior drivers, which are now required for persons aged 70 and older, include tests for verifying the level of competency necessary in ensuring safe driving takes place. In the programs participants can be requested to either drive an actual vehicle or to use driver-competence testing equipment in arriving at an evaluation of their skills. The goal is to have elderly drivers be more aware of the changes that can occur in their physical functionality and to then offer them advice and guidance based on the results of the findings. Under existing regulations persons who participate in these programs are not required to take the courses that they would normally be required to take when renewing their licenses. A total of 1,360,488 persons participated in these programs in 2008.

Traffic safety agencies have also organized classes for drivers aged 65 to 69 that are held in conjunction with license renewals. These classes endeavor to reveal to seniors their own driving tendencies and the characteristics of accidents in which the elderly have often been involved.

### ● Enhancing guidance and supervision of road transport operators

Efforts have been made to implement thorough auditing and reinforcing operators involved in serious accidents and new entrants, and also to implement joint audits and supervision being provided by relevant

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<sup>3</sup> Near-infrared beacons: Roadside infrared communication devices that measure traffic volume etc and relay that information between vehicle navigation systems and traffic control centers.

agencies to bus operators and truck operators that have applied to be taxi operators to date in enhancing and strengthening the audit system.

Moreover, the government are enhancing and strengthening ex post facto verifications that include strict audits and dispositions based on the results of the "Overall safety measure review committee related to commercial vehicles" set up to examine the overall safety measures from a wide point of view and including both soft and hard aspects in November, 2008.

The government has promoted the construction of a uniform safety management system that involves its top management down to its front-line workers of operators through the "Transport Safety Management System" introduced in October 2006, and had also implemented assessments on the status with the construction and improvement of the safety management systems of a total of 263 operators by the end of December 2008.

#### **4 Increasing the safety of vehicles**

##### **● Promotion of vehicle safety measures**

The government commenced upon the fourth phase of a project involving the promotion of ASVs in 2006 in promoting the development, practical deployment and dissemination of ASVs: Advanced Safety Vehicles that aid in safer driving through use of advanced technology and has made approaches in appropriately disseminating ASV technology via practical deployment in a industry-academic-government collaboration and practical deployment of a safe driving support system using communication devices.

In order to prevent buses catching fire, the wheel loss of large-sized vehicles, and other accidents resulting from inadequate check and maintenance the government has continued to check the major parts of large-sized vehicles, newly implemented in 2007, and has sent a message on noticeable matters to businesses regarding the check and maintenance of trucks and buses.

In 2004 the government responded to the need to detect cover-ups and other illicit practices being made by automakers through initiating measures to prevent the recurrence of fraudulent recall-related activities by bolstering the various systems in combating unfavorable information gathering, auditing of defective vehicle-related businesses, and technical inspections, and steadily implemented measures in prevent any recurrence in 2008.

#### **5 Improving rescue and emergency medical (first-aid) systems**

##### **● Enhancing the effectiveness of the " Doctor-helicopter Program "**

The " Doctor-helicopter Program, " which was deployed based on the "Law for special measures to secure emergency medical services with helicopters," which was approved and enforced on June 27, 2007, aims at providing better medical care at emergency sites and when transporting patients. As of the end of FY2008 emergency stations in sixteen prefectures had started operating the helicopter service.