Feature article

“Challenge to New Goals in Road Transport”
- Preparation of the 10th Traffic Safety Basic Plan (Road Transport) -

◎ Introduction

The Traffic Safety Policies Basic Act (Act No. 110 of 1970) was enacted in 1970 in Japan, and various policies and measures for traffic safety have been vigorously promoted by means of the traffic safety basic plan prepared every 5 years in order to implement traffic safety measures in our country. As a result, the number of fatalities of 4,117 due to traffic accidents in 2015 decreased to less than one fourth of the number of fatalities of 16,765 in 1970. However, since the number of casualties due to traffic accidents still exceeds 600,000 people and the number of traffic accidents still remains high, it is necessary to decrease the number of accidents itself.
In the 10th Traffic Safety Basic Plan adopted in the meeting of the Central Traffic Safety Policy Council held on March 11, 2016 with the Prime Minister serving as the chair, it has been decided that, not only that the past traffic safety measures will be further enhanced, but also that the development and dissemination of safety driving support systems using advanced technologies and the effective use of information will be vigorously promoted in the next 5 years.

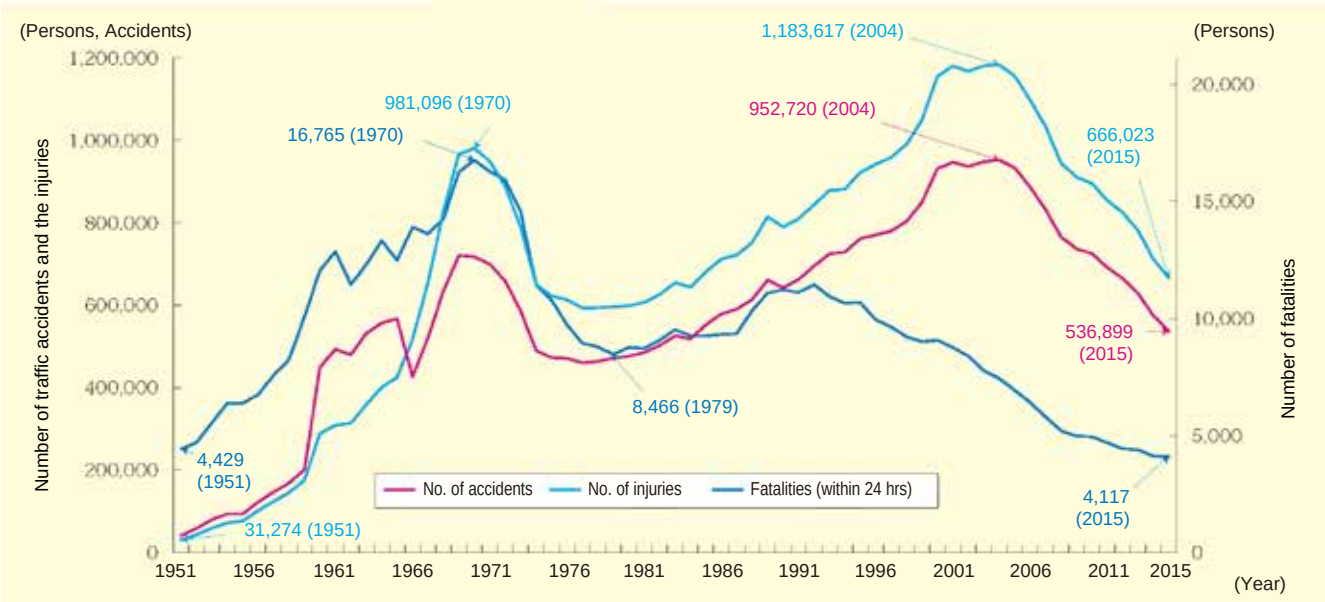
(Aspect of the meeting of the Central Traffic Safety Policy Council held at the Prime Minister's Official Residence on March 11, 2016)

The present feature article summarizes the occurrence situation of road traffic accidents and the characteristics of accidents in recent years, and describes the efforts that will be pursued in the future by the government, local governments and relevant private organizations as one in order to achieve new goals listed in the basic plan.
We hope that the present feature article will help all the citizens deepen their understanding and interest in traffic safety and serve as an aid to the effort to eradicate miserable and cruel traffic accidents.

I Occurrence Situation of Road Traffic Accidents

As a result of efforts pursued by the public and private sectors as one under the several Traffic Safety Basic Plans in the past, the number of traffic accidents in 2015 was 536,899 and the number of fatalities 4,117, while the number of injuries was 666,023. When compared to the previous year, the number of accidents decreased by 36,943 (6.4%) and the number of injuries by 45,351 (6.4%). While the number of driving license holders and the number of vehicles owned has been increasing recently, the number of occurrence of traffic accidents and the number of injuries has been decreasing for the past 11 years by 2015, and the number of casualties decreased to less than one fourth of the period with the highest number so far.
However, the number of fatalities increased by 4 persons (0.1%) compared to the previous year for the first time in 15 years, and the goal stipulated in the 9th Traffic Safety Basic Plan that "the number of fatalities due to traffic accidents shall be decreased to less than 3,000 by 2015" could not be achieved.
In recent years, the population of elderly people of 65 years old and over (hereinafter, "elderly people") with the fatality rate about 6 times higher than that of other age groups has been growing steadily year by year, and the percentage of elderly people in the overall number of fatalities in traffic accidents also remains at high levels, recording the highest number so far.
It is thought that these circumstances as a whole contribute to the reduction of decrease in width of the overall number of fatalities and the increase in the overall fatality rate.

u Feature article / Chart 1 The Number of traffic accidents, the number of fatalities and the number injuries due to road traffic accidents



Note:
1. Source: National Police Agency
2. Figures in 1966 and after do not include any property damages. Figures before 1972 do not include Okinawa Prefecture.
3. "Fatalities (within 24 hours)" shows the number of persons who died due to a traffic accident within 24 hours after its occurrence.

II Characteristics of Road Traffic Accidents in Recent Years

1. Number of Fatalities by age group

The number of fatalities of elderly people has been showing an increase since late 1970's with the increase in their population and has become the age group with the highest number of fatalities, surpassing that of the youth (16 to 24 years old) in 1993. Since then, the number has been stable after having peaked in 1995 (3,241 people) and the number has been decreasing nearly every year since 2002. However, if we look at the changes in the past 10 years, since the decrease rate of elderly people is smaller (0.76 times of 2005) compared to people of 25 to 29 years old (0.34 times of the same year) and the youth (0.38 times of the same year) , the overall percentage of elderly people is increasing year by year.

If we look at the number of fatalities in traffic accidents in 2015 by age group, that of elderly people is the highest (2,247), and in particular that of people of 75 years old and over accounts for 36.1%. The number of fatalities of elderly people increased compared to the previous year (increased 54 people, 2.5% compared to the previous year), and the percentage of fatalities of elderly people in the overall number of fatalities is 54.6 %, which is the highest number so far. As the aging progresses further in the future, it is important to enhance measures against traffic accidents of elderly people.

On the other hand, the number of fatalities of children at the age of 15 or under was 80 (decreased 4 compared to the previous year) and remains almost stable. Although its composition ratio is the smallest compared to other age groups, traffic accidents with a big social impact, such as accidents on the way to and from school are never-ending. Therefore, further measures against traffic accidents need to be taken from the perspective of preventing children from traffic accidents.

In addition, if we look at the number of injuries in traffic accidents by age group, the age groups of 40 to 44 years old (66,903) and 35 to 39 years old (61,391) are large. When compared to the previous year, the number of injuries decreased in all the age groups, and in particular, the age groups of 20 to 24 years old (decrease of 5,301) and 60 to 64 years old (decrease of 5,220) decreased .

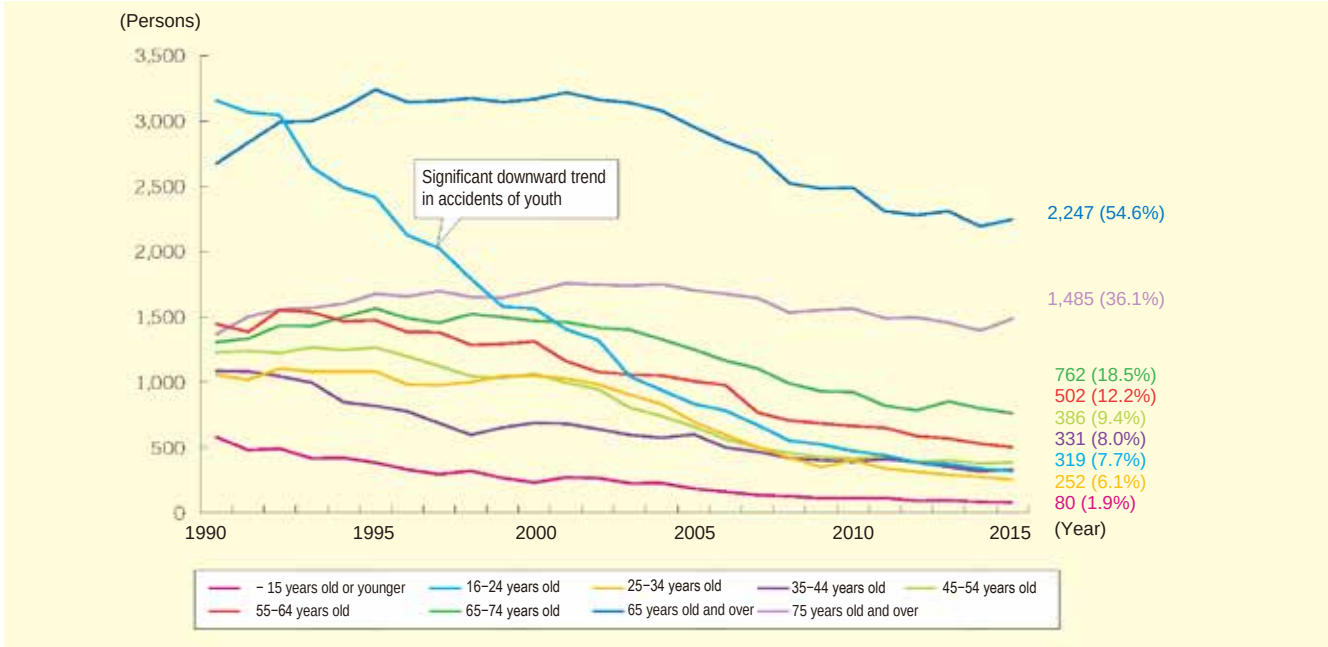
2. Number of Fatalities in Traffic Accidents of Elderly People by Condition

If we look at the number of fatalities of elderly people by condition, the highest percentage is in walking which accounts for almost the half (47.6%), followed by those in driving a car (28.4%) and in riding on a bicycle (16.6%).

The number of fatalities while driving a car is the highest with 748 in 2001 and decreased since then. However, the number started to increase in 2012 and the number of fatalities in the last year (2015) was 638 with an increase of 38. Therefore, it is one of the important problems to take measures against accidents of elderly while driving a car.

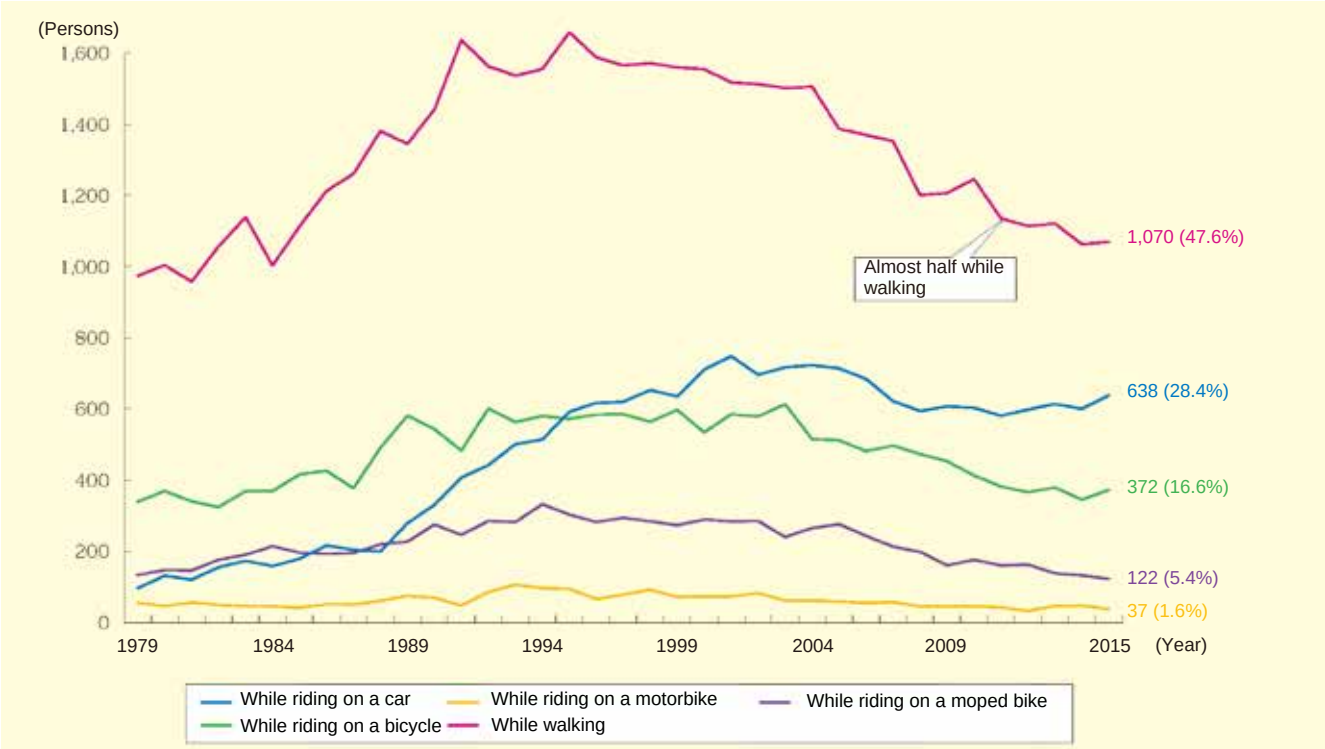
In addition, the fatality rate of elderly people is about 6 times higher than other age groups and the overall fatality rate has increased for three years in a row. While the population of other age groups decreases, the population of elderly people has been increasing year by year. It is considered that this fact makes it difficult to decrease the number of fatalities of elderly people in traffic accidents and contributes to the reduction of decrease in width of the overall number of fatalities.

u Feature article / Chart 2 Changes in the number of injuries in traffic accidents by age group



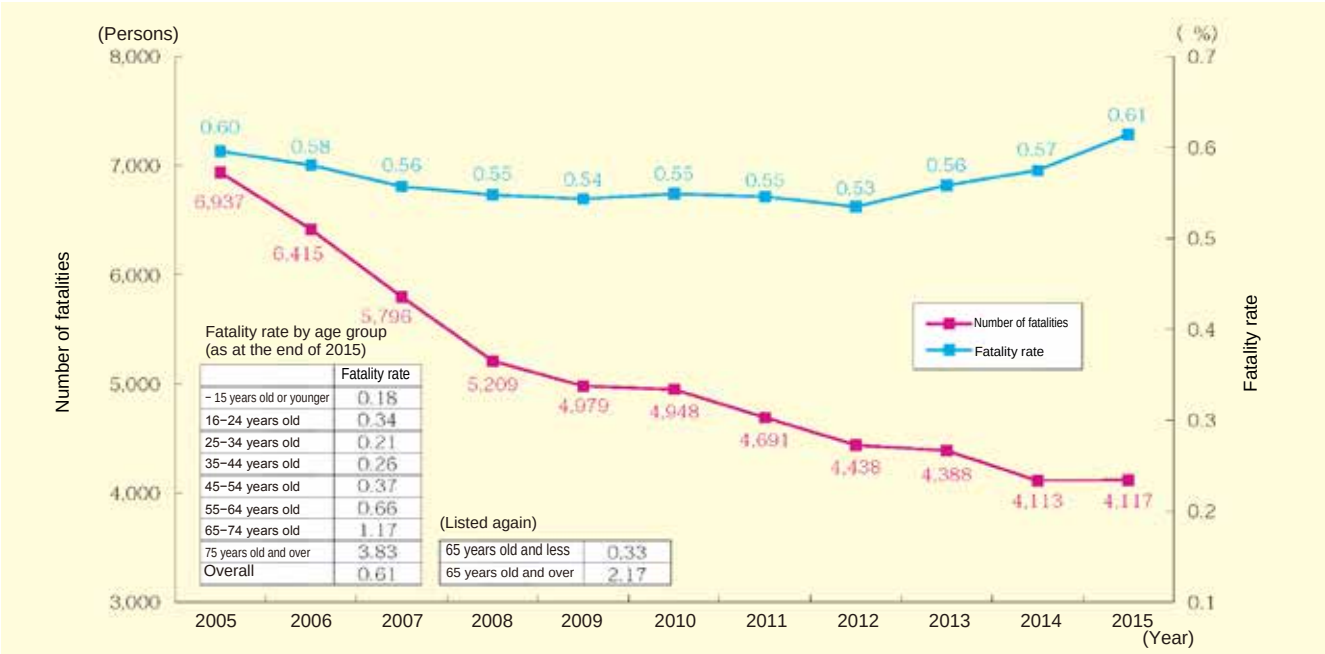
Note: Source: National Police Agency

u Feature article / Chart 3 Changes in the number of fatalities in traffic accidents by state of elderly people



Note: Source: National Police Agency except that "others" is omitted.

u Feature article / Chart 4 Changes in the fatality rate and the number of fatalities



Note:
1. Source: National Police Agency
2. Fatality rate = number of fatalities/number of casualties x 100

○ **Description of Accidents in Recent Years**

Reverse Driving Accident in a Highway

In October 2015, a standard-sized car driven by a man in his 80s traveled in the opposite direction on the outbound line of the Hokuriku Expressway in the city of Kashiwazaki, Niigata Prefecture and collided frontally with a standard-sized car travelling on the passing lane in order, whereby four people including the drivers got slightly injured.

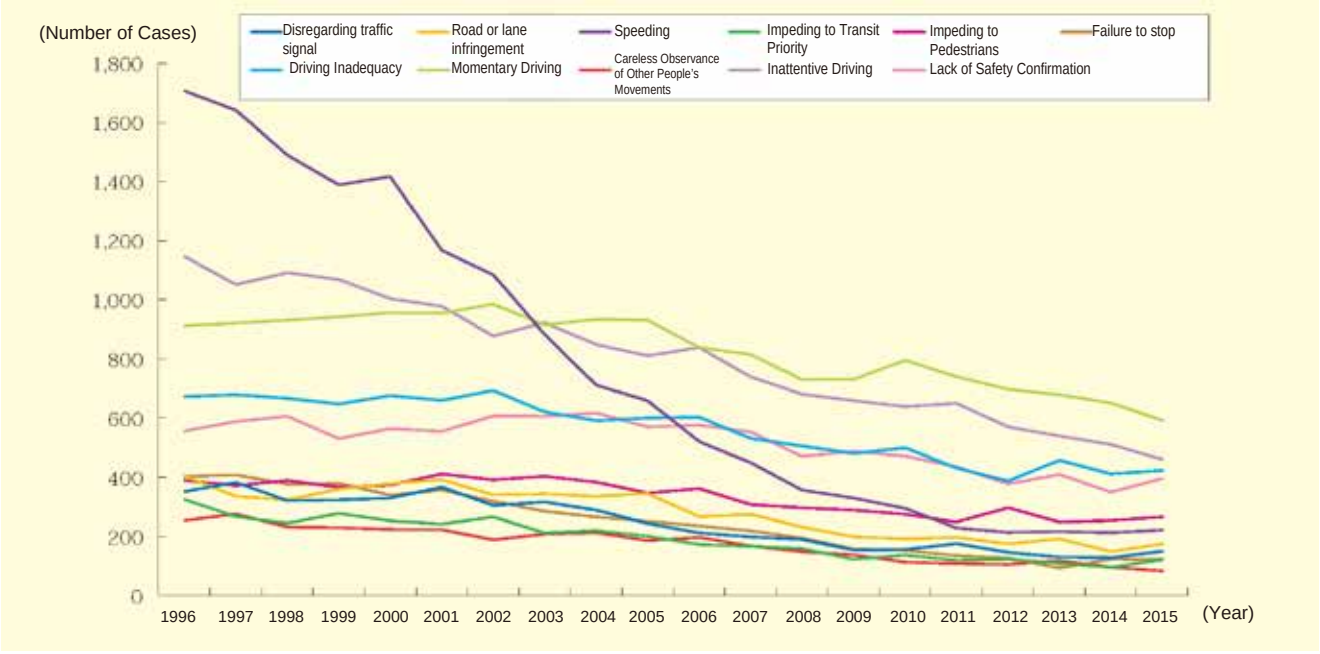
Runaway Accident on a Sidewalk

In October 2015, a small-sized car driven by a man in his 70s went out of control and traveled from a crossing in the central part of Miyazaki City, Miyazaki Prefecture to the front of the JR Miyazaki station and collided with a total of six men and women walking or riding a bicycle pedestrians, whereby two women died and 4 men and women got injured.

3. Number of Occurrence of Fatal accidents by Violation of Law (Primary Party)

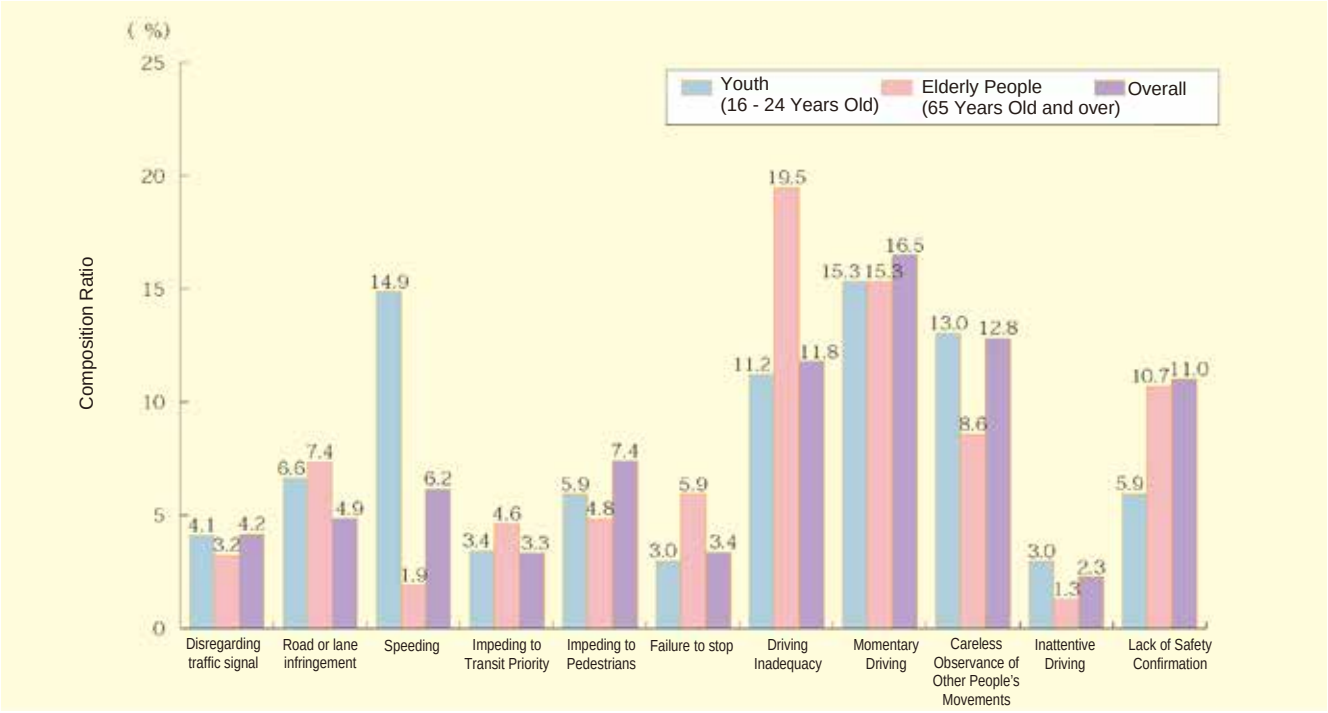
If we look at the number of occurrence of fatal accidents by violation of law (the primary party (the person with the most gross negligence of the parties involved in a traffic accident, or the person with the lightest damage if the extent of negligence is nearly identical. The same shall apply hereinafter)), the number of fatal accidents due to speeding was the highest in the past, but the number of fatal accidents caused by the violation has considerably decreased in recent years. However, the decrease rate in the number of fatal accidents caused by momentary driving and inattentive driving is smaller than speeding and its percentage is higher than other types of accidents.
In addition, since the percentage of fatal accidents in elderly drivers due to driving inadequacy (braking or steering inadequacy) is higher than that of other age groups, it will be necessary not only to continue crackdowns and the provision of safety education as measures against traffic accidents, but also to take control measures, including the active use of a variety of information on advanced technologies and traffic accidents.

u Feature article / Chart 5 Changes in the Number of Occurrence of Fatal Accidents of Drivers of a Moped Bike or a Heavier Vehicle by Violation of Law



Note: Source: National Police Agency

u Feature article / Chart 6 Number (composition Ratio) of Fatal Accidents of Drivers of a Moped bike or a Heavier Vehicle (Primary Party) by Violation of Law and by Age Group (2015)



Note: Source: National Police Agency

™ **Description of Accidents in Recent Years**

Accident on School Road

In March 2016, an automobile driven by a driver (in the 70s) drove into a row of elementary-school students on their way to school in a group on a municipal road in Takasaki-city, Gunma Prefecture, whereby a male student was killed.

Inattentive Driving

In November 2015, a standard-sized car advanced into the opposite car lane and collided frontally with a large truck travelling in the opposite car lane on a national road in Shikoku Chuo-city, Ehime Prefecture, whereby 3 male and female occupants in the standard-sized car were killed and the driver got slightly injured

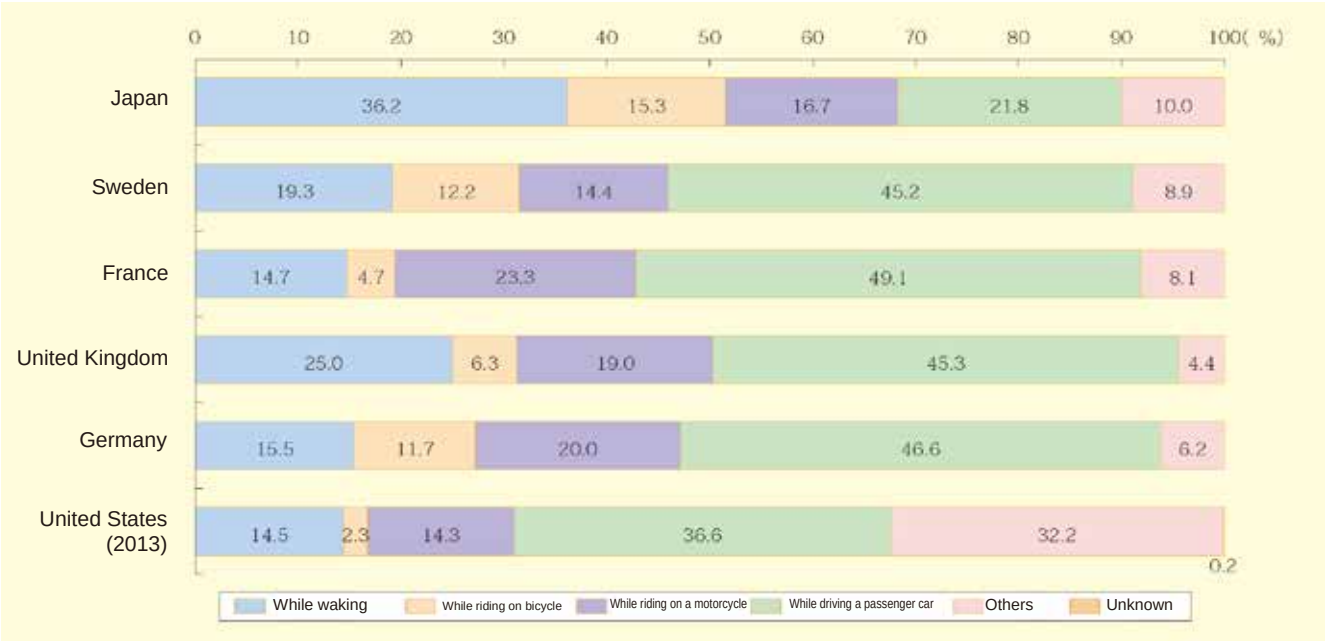
4. Situation of Fatal Accidents related to Bicycles

The number of bicycle-related accidents in 2015 was 98,700 (18.4% of the overall number of traffic accidents) showing a decreasing trend year by year and it is seen that policies and measures for ensuring bicycles contribute to the reduction of accidents. However, the number of bicycle-related fatal accidents in 2015 was 577 (14.3% of the overall number) showing a slight increase compared to the previous year.
The composition rate of the number of fatalities in traffic accidents by condition in Japan is higher in the percentage during walking or riding on a bicycle compared to the United States and European countries. Since Japan and the United States and European countries are different in traffic environment, living environment and others and it is not possible to make a simple comparison. However, it is further necessary to develop a bicycle traffic environment and provide traffic safety education as measures for the prevention of traffic accidents of bicycle users in Japan as well. Incidentally, when a bicycle collides with a pedestrian and others, it may be liable for the collision and there are cases in which a large amount of compensation for damage is required.

u Feature article / Chart 7 Changes in bicycle-related accidents

Note: Source: National Police Agency

u Feature article / Chart 8 Composition Rate of the Number of Fatalities in Traffic Accidents by Condition in Major Countries in Europe and USA (2014) *Latest International Comparison Data



Note:
1 According to IRTAD data
2. The numerical value shows the composition rate by condition

u Feature article / Chart 9 Accidents in Which the Primary Party was the Bicycle

Note: Source: National Police Agency

○ **Description of Accidents in Recent Years**

Large Amount of Compensation for Damage caused by Bicycles

[Judicial Precedent]

When a boy descended a sloping road on a mountain bike in a residential district in Kobe-city in September 2008, he collided frontally with a woman walking and the woman got hit on the head. Although she escaped death, she has been bedridden for 4 and half years since then.

The court recognized in the verdict that the boy traveled at a speed of 20 to 30 kilometers per hour and the accident was caused by his not looking ahead carefully. The court ordered the payment of compensation of a total of about 95 million yen to his mother for "having not fulfilled her supervisory obligations to give enough instructions and notice" by stating that the body was not wearing a helmet at the time of the accident.

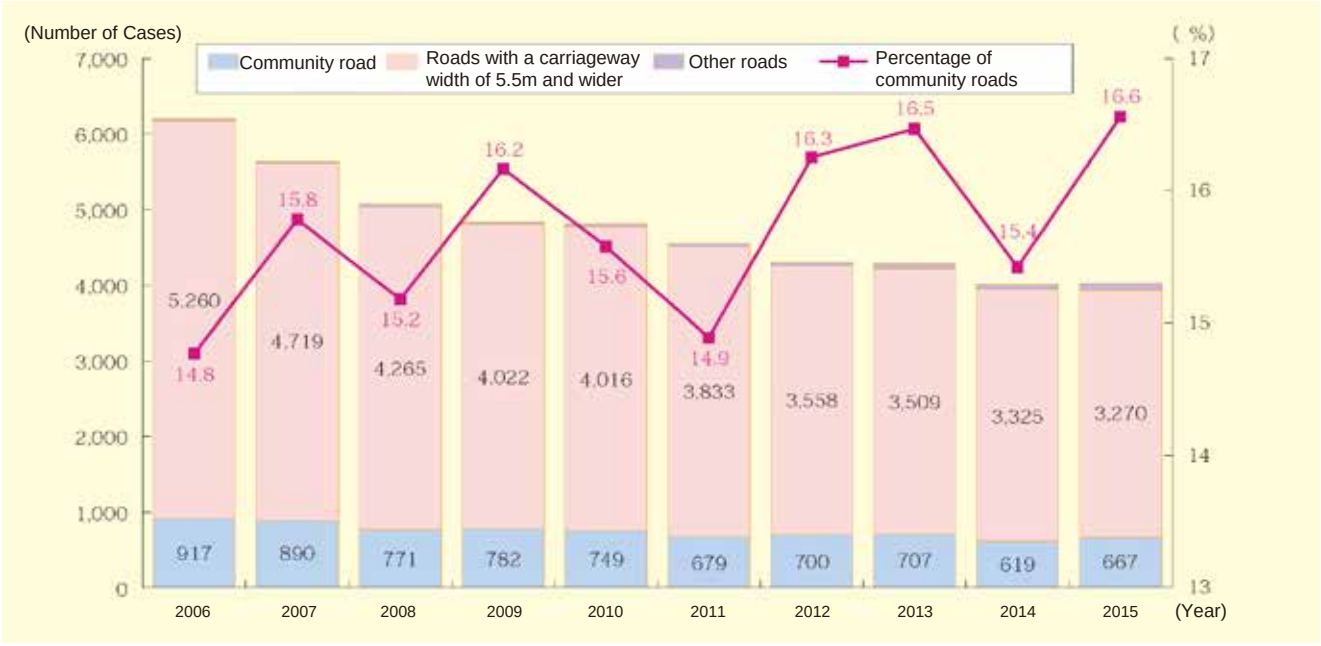
Bicycle Accident for wearing an earphone

In June 2015, a university student traveling on a bicycle on a prefectural road in Chiba Prefecture while listening to music with an earphone attached to both ears collided with a woman in her 70s crossing a crosswalk on foot and the woman was killed. In August, Chiba Prefectural Police reported the university student riding on a bicycle to the prosecutor's office in charge with manslaughter for gross negligence. In February 2016, the Chiba Regional Court delivered a guilty verdict of two years in prison with a stay of execution of three years.

5. Community road

It is a critical issue to ensure traffic safety on community roads that are used daily by community residents. However, if we look at the number of fatal accidents by carriageway width, the percentage of occurrence of fatal accidents on a road with a carriageway width of less than 5.5 meters in the overall number of fatal accidents is showing a slight increasing trend. In addition, while the number of fatal accidents has been decreasing consistently on roads with a carriageway width of 5.5 meters or wider, the number has been fluctuating between an increase and a decrease not showing a steady decreasing trend on roads with a carriageway width of less than 5.5 meters. In addition, if we look at the number of fatalities of elderly people in walking and in riding on a bicycle by distance from home, the number of fatalities is high in accidents which occurred in a short distance from home in both cases. From this, it is important to further ensure the safety on community roads that are used daily by community residents.

u Feature article / Chart 10 Changes in the number of fatal traffic accidents in community roads



Note: Source: National Police Agency

6. Public Transport

It is also a critical issue to further ensure the safety of public transport, such as bus and others, which supports our daily life and which will cause large damage once an accident occurs.

In light of the past bus accident on the Kanetsu Expressway, a variety of measures have been taken so far including the provision of guidance to operators of passenger transport business such as an expressway limousine bus, but in January this year, the ski tour bus accident occurred in Karuizawa.

Since the safety of public transport is very important for the security and safety of all citizens, efforts not only to investigate the cause of the accident, but also to take measures to prevent the recurrence.

™ Description of Accidents in Recent Years

Bus Accident in Karuizawa

In January 2016, a large sightseeing bus with a capacity for 54 passengers fell off the National Route 18 in Karuizawa town of Kitasakugun, Nagano Prefecture near the Iriyama Pass of the Usui Bypass. 15 people out of a total of 41 people between the crew and passengers (a driver (in his 60s), a relief driver and 39 passengers) were killed (both the drivers were killed) and all the remaining survivors got injured. At least, the crash was the worst traffic accident with the highest number of fatalities since 1990 in which statistics of traffic accident statistical data became available.

The Ministry of Land, Infrastructure, Transport and Tourism established the countermeasures headquarters with the Minister as the chief thereof immediately after the accident to deal with consultations and requests through the victims consultation center and to ask the Business Vehicle Accident Investigation Committee for investigation. The Ministry conducted a special audit on the chartered bus operators and not only gave through instructions on safety operation to all chartered bus operators across Japan, but also conducted emergency audit on the road as well as concentrated audit. In addition, in order to ensure the safety of bus transportation and recover security and peace of mind, the following emergency measures were taken.

- The Ministry not only requested the industry group to spare no pains in calling attention to wearing seat-belts to passengers and checking visually their seat-belt wearing situation before departure, but also prepared leaflets for the enforcement of seat-belt wearing to disseminate through internet.
- The Ministry also requested the industry group to check the driving experience of a driver by the type of vehicle, and to provide practical training to the driver without a sufficient experience for driving the type of vehicle intended.
- In view of audit results on the road, business operators will be obliged to make a checklist of items in which violations of law are abundant and check the list before the departure of a vehicle.

Further, in light of the accident, the "Karuizawa Ski Bus Accident Investigation Committee" was established to study drastic safety measures.

Leaflet for the enforcement of seat-belt wearing

Source from the data released by the Nagano Prefectural Police after the accident

III Towards Achieving New Goals

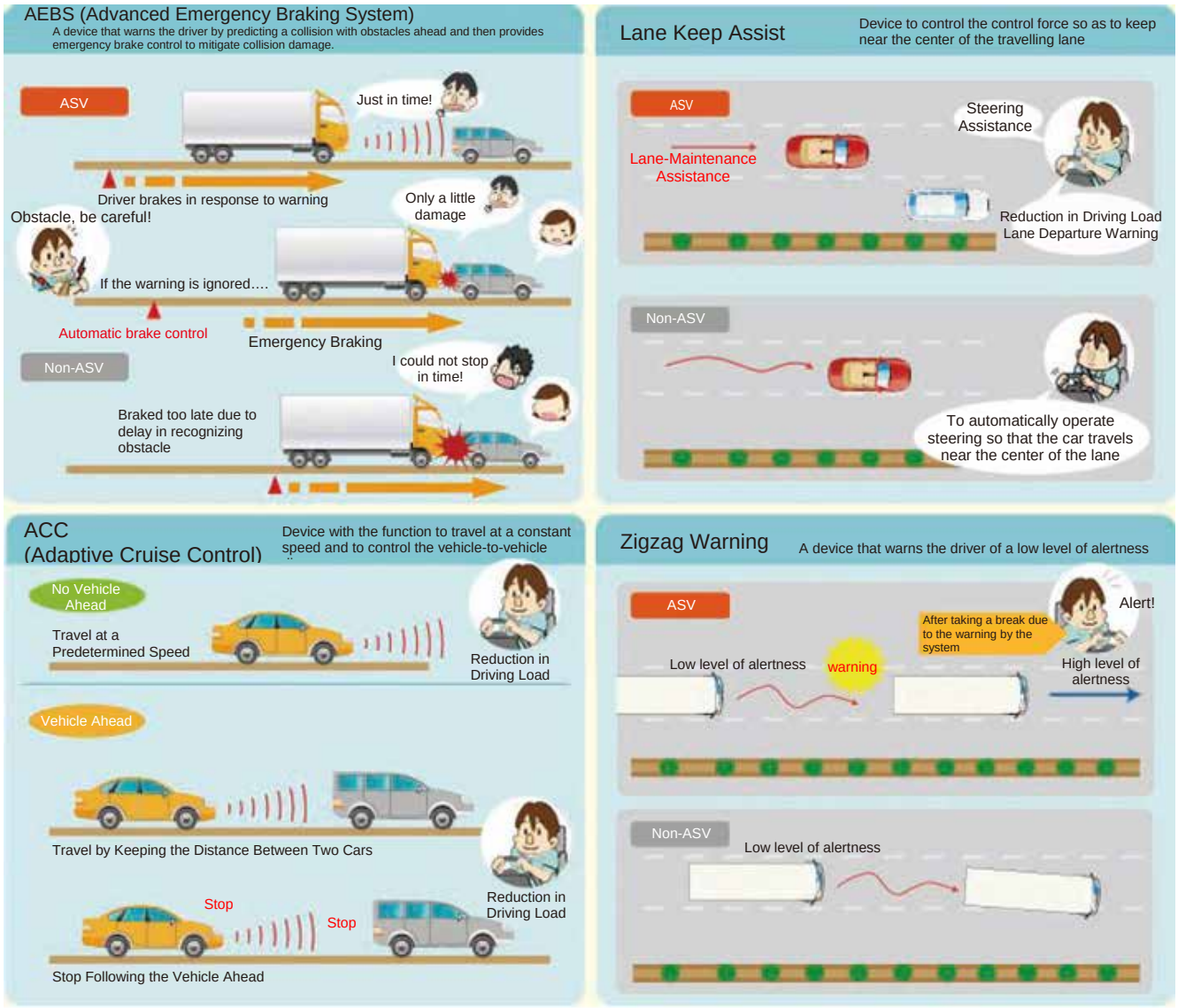
◎ Foreword

It is the ultimate goal to realize a society without traffic accidents. Since it is difficult to realize this goal overnight, however, it is aimed to realize the safest road transport in the world by decreasing fatalities within 24 hours to less than 2,500 per year by 2020 which is the last year of the plan period in the 10th Traffic Safety Basic Plan.
Our country is facing a serious depopulation and the arrival of an aging society and it is important to ensure safety of vulnerable road users such as elderly people. In order to achieve the goals of the present plan, it will be necessary to further promote finely-tuned traffic safety measures to reflect the real image of a variety of elderly people.
In order to achieve the high goals listed in the present plan, it will be necessary not only to deepen the variety of measures that have been implemented so far, but also, considering that the population of elderly people who cause traffic accidents due to their driving inadequacy and with high fatality rate will increase in the future, to use advanced technologies, such as a safety driving support system designed to prevent accidents due to delay in danger recognition by the driver or error in driving operation and a system to provide rescue and first aid immediately when a traffic accident occurs, and to take finely-tuned measures using and analyzing a variety of information including Big Data such as actual traffic conditions, etc. In this manner, it is aimed in the present plan to realize a society without traffic accidents and create a society with the highest traffic safety in the world.
In addition, in order to realize a safe traffic environment, it is also necessary to form a society system that will support attitude and behavior change in drivers and pedestrians who play the main role in the traffic society in a cooperation by the administration, relevant organizations, residents, etc.

1. Use of Advanced Technologies

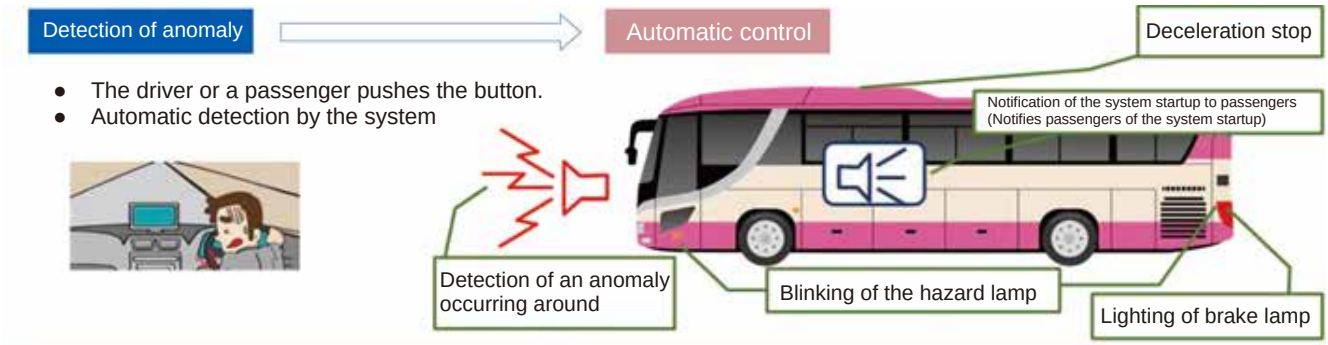
As countermeasures against traffic accidents caused by inattentiveness of a driver and traffic accidents caused by the decrease in physical functions of elderly, it is necessary to promote the introduction of systems in light of technical development, such as a system to support safety driving designed to prevent accidents due to delay in danger recognition by the driver or error in driving operation and a system to provide rescue and first aid immediately when a traffic accident occurs, among other systems.
The development and dissemination of advanced safety vehicles (ASV) that carry on board a system to assist the safe driving of a driver by using advanced technologies will be further developed under the Study Group for ASV Promotion based on collaboration between government, industry and academia.
Specifically, it will be necessary to further carry on technical development, such as the improvement of technology to detect pedestrians in collision damage mitigation braking systems and to introduce measures to further disseminate the ASV technologies already available in the market by following international movements.
In addition, it is expected that the number of fatalities and serious injuries in traffic accidents will be further decreased through the development and dissemination of new technologies, such as the “System to Deal with Driver’s Anomaly” that stops the car for the driver (1) when it becomes difficult for the driver to continue driving due to an anomaly such as the occurrence of a spasm due to sudden disease during driving and (2) the “Automatic Accident Reporting System” that allows an emergency vehicle to go to the site immediately by reporting information of the position of the place where an accident has occurred through a device mounted on a car.
In addition, considering that many traffic accidents are caused by driver’s errors, since an automatic travelling technology may contribute to a dramatic improvement in traffic safety, it is necessary to develop an environment for the development and dissemination of the automatic travelling technology.
In addition, the dissemination of the Drive Safety Support System (DSSS) for providing the traffic situation in the vicinity of the driver by means of visual and auditory information and ETC 2.0 Service for providing information provision service such as traffic jam avoidance support and safe driving support by means of a ETC 2.0 compliant car navigation and a ETC 2.0 device is underway in addition to ETC, and it is expected that they will play a part in the reduction of traffic accidents.

Technical examples of an advanced safety car



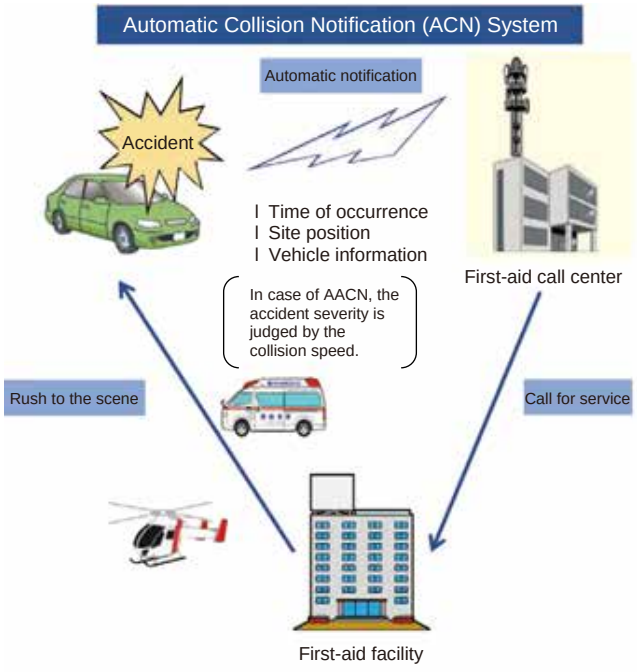
ETC 2.0 service (congestion avoidance assistance/safe driving assistance)

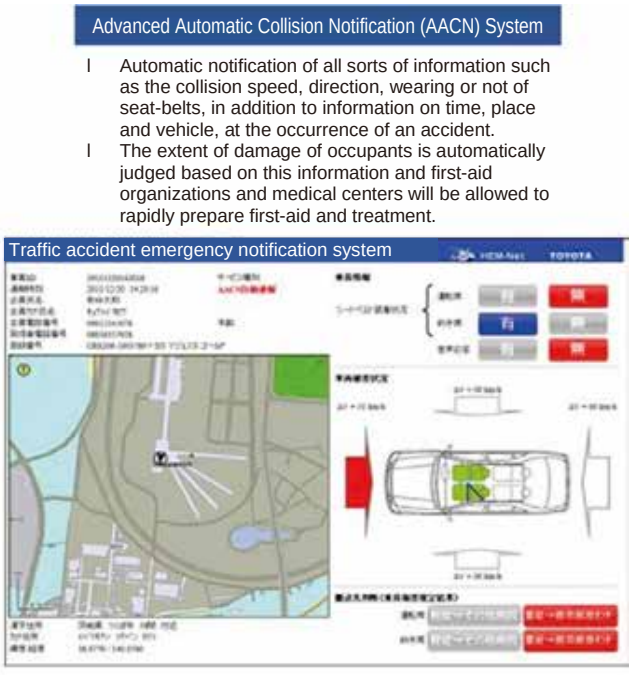
Examples of advanced technologies which are expected to be developed further.



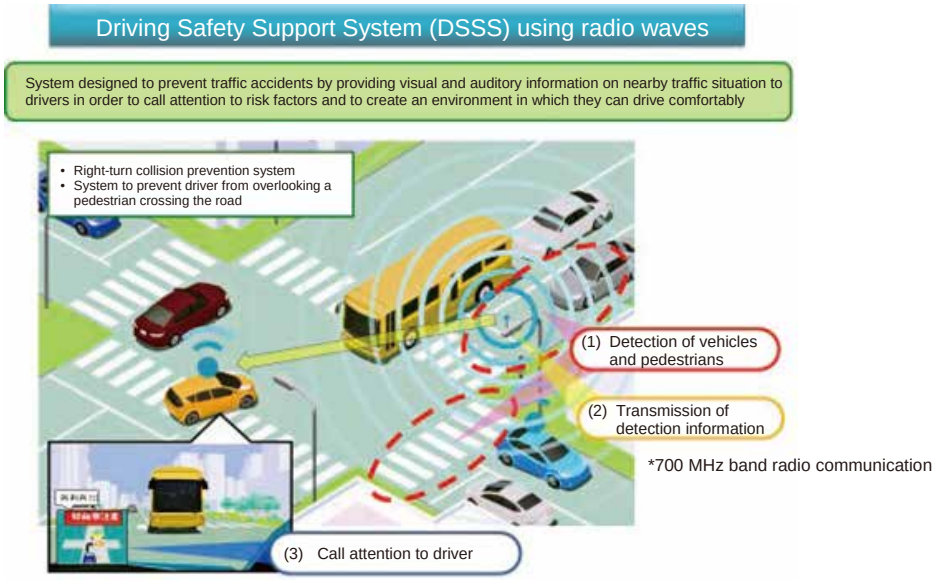
Anomaly detection	Automatic Control
1. Push-Button System l Driver's Push-Button l Passenger's Push-Button 	1. Simple stop method Stops by gradually decelerating speed (without steering) 2. Inside lane stop method Stop inside the lane by gradually decelerating speed while keeping the lane 3. Method to stop at road shoulder Decelerate speed gradually, and stop by pulling the car to the road shoulder, if possible.
2. Automatic Detection System l The system monitors the posture, the line of sight and steering operation to detect anomalies. 	

System to deal with driver's anomaly





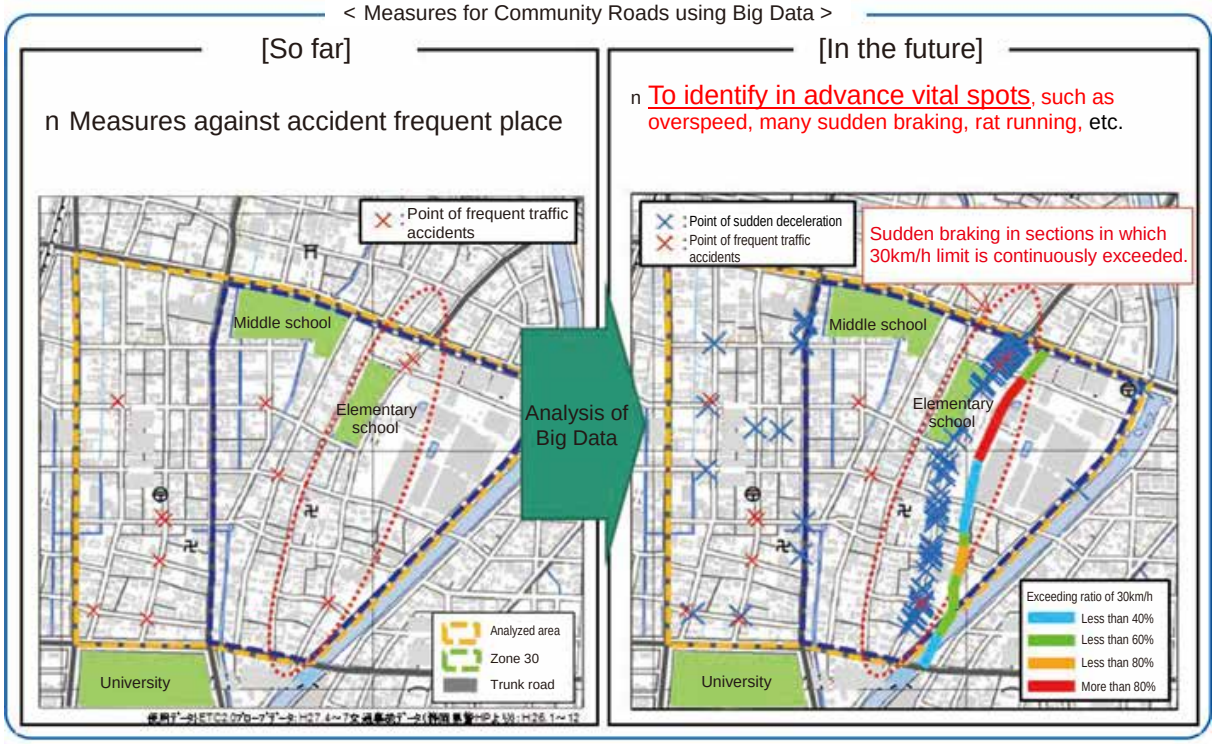
Automatic Collision Notification System



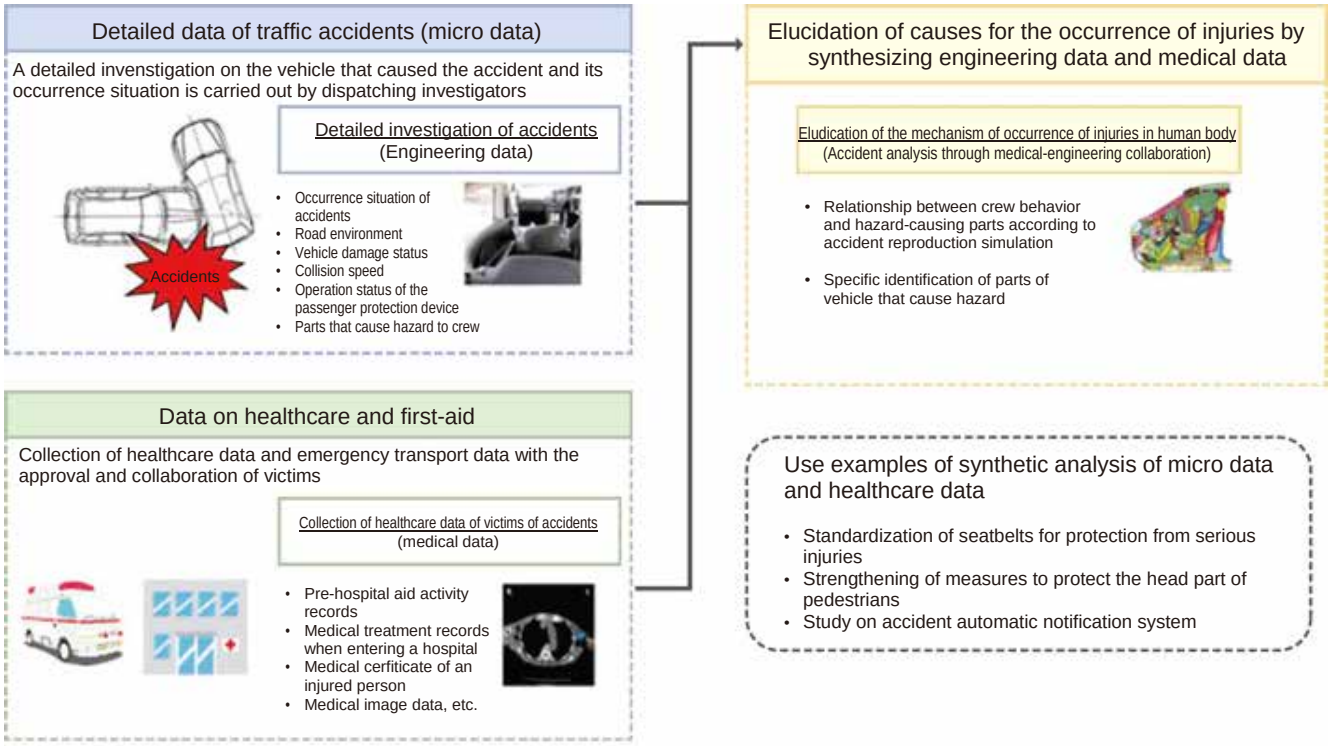
Driving Safety Support Systems (DSSS)

2. Promotion of Finely-tuned Measures in Light of Traffic Situation

Through the implementation of comprehensive traffic safety measures focused on malicious and dangerous violations, it has been possible to considerably reduce the number of traffic accidents. However, there are still many fatal accidents resulting from the violation of the safe driving obligations and its percentage has increased relatively in recent years. For this reason, it will be necessary to reduce these traffic accidents by effectively implementing more finely-tuned measures by analyzing traffic accidents which have been difficult to control by the measures implemented in the past based on detailed information on where and how the accidents occurred.



Community Road Measures Using Big Data



Synthetic analysis of micro data of traffic accidents and healthcare data

In order to understand and analyze the actual situation of each accident, in addition to macro data and micro data, it will be necessary not only to study the use of information from a video recording type drive recorder and a event data recorder (EDR) which are recording device mounted on a car, but also to study efforts which will contribute to the further promotion of traffic safety, such as the detailed investigation of the damage occurrence mechanism by understanding in detail the damage situation of crew and passengers. In addition, so as to allow our citizens to recognize the occurrence situation of traffic accidents to improve their understanding thereof, it will be necessary to promote the sophistication of traffic accident analysis using a geographical information system, etc., and provide and transmit information on accident data and frequent accident spots by means of different sorts of publicizing media including the internet.

3. Promotion of Participation and Cooperation of Residents

In order to form a safe and secure traffic society in a community, it is important that residents of the community take part actively in its formation and it is necessary to provide information on traffic accidents regarding where and how they occurred via internet and other means to enable community residents to have more interest in traffic safety measures, accordingly. In particular, it is necessary not only to raise awareness of traffic safety in age groups centered on the youth by providing effective information on traffic safety, but also to develop an environment which will allow them to engage themselves actively in enlightenment activities for traffic accidents.

Since the safety of traffic is supported by safety awareness of residents, it is important that residents themselves raise their awareness towards traffic safety. For a thorough dissemination of traffic safety philosophy, it is necessary to promote accessible activities according to the actual situation of each community in a close cooperation among the administration, private sector organizations, companies and residents in order to enable residents to actively participate and collaborate in the efforts.

In addition, it is also important to promote traffic safety measures which include the preparation of “Close Call (Near Miss) Map” by the hand of residents or road users aimed at the formation of a safe and amiable community, the creation of a mechanism such as an overall traffic safety check in which residents can participate actively, and the establishment of specific goals based on the needs of the community in these activities.

4. Safety of Public Transport

As safety measures for public transport, such as bus, the Ministry will enhance and strengthen maintenance audit and evaluation of transportation safety management. Moreover, in light of the fact that business operators have an important role to carry a number of users safely to destinations, it is further necessary to engage in taking safety measures including health management of drivers and others.

™ **Status of the study by the Karuizawa Ski Accident investigation Committee**

In light of the occurrence of the Karuizawa ski bus accident on January 15, 2016, in order not to repeat the occurrence of such a miserable accident, the Ministry of Land, Infrastructure, Transport and Tourism established the "Karuizawa Ski Accident investigation Committee" composed of knowledgeable people in order to study recurrence prevention measures thoroughly, and considering structural problems such as a significant increase in the number of chartered bus operators after the implementation of the deregulation and audit personnel structure, deficiency in the number of bus drivers due to declining and aging population, the implementation of thorough safety measures will be required.

Discussions were made from a variety of perspectives including:

- ™ Strengthening the checkup of safety performance before and after of chartered bus operators
- ™ Improving the transaction environment with travel agencies and allowing users to "visualize" the safety performance
- ™ Strengthening checking of the driving skills of drivers, and
- ™ Enhancing safety measures in terms of hardware

In light of discussions of the Committee, not only practicable measures will be rapidly implemented, but also comprehensive measures will be compiled by the summer of 2016 and implemented.

Incidentally, on March 29, 2016, an "Interim Report" on recurrence prevention measures was compiled and published.

[Government Homepage]
http://www.mlit.go.jp/report/press/jidosha02_hh_000238.html

5. Items which will be continually Addressed actively

Although it is necessary to actively engage in new measures including the use of advanced technologies for further promoting traffic safety measures, it is also important to further deepen efforts including measures for elderly people that have been addressed so far.

(1) Ensuring Safety of Elderly People, Children and Others

Since it is very important that each citizen has a forward-looking attitude to building a safe and secure traffic society actively, it is important to enhance education and dissemination/enlightenment activities on traffic safety. In particular, not only the content of the classes for elderly people in seminars for elderly people and seminars for the renovation will be enhanced for elderly drivers, but also, training sessions for providing safe driving individually will be held in coordination with relevant organizations and groups as well as driving schools in order to increase the opportunities for receiving training for elderly drivers.

In addition, based on the idea that an urban environment or a living environment is designed to allow a variety of people to use it easily regardless of ages and others, it will be necessary to form a barrier-free road transport environment.

(2) Ensuring Safety of Pedestrians and Bicycles

In order to ensure safety of pedestrians in areas with a high traffic accident rate, it is necessary to engage in zone measures such as thorough exclusion of through traffic and restriction of vehicle speeds with a view to ensuring a road space where children and elderly people, etc, can transit with peace of mind.

In particular, in order to promote the safe use of bicycles, the efforts to ensure the travelling space of bicycles will be actively made so that vehicles or pedestrians co-exist with bicycle users.

In addition, the provision of education on traffic rules for the bicycle will be enhanced and violations that endanger pedestrians walking on a sidewalk will be strictly cautioned and warned to bicycle users. Since there are cases of accidents in which a bicycle is responsible, a vast amount of compensation is demanded. Therefore, in order to secure the fund to pay compensations when they are enforced on a bicycle user and to provide relief to victims, it will be necessary to accelerate measures in cooperation with relevant business operators so that bicycle users take up general liability insurance.

(3) Development of People-First Walking Spaces Offering Safety and Security on Community Roads

It is important to prevent the through traffic from flowing into community roads and form a safer road transport environment through the development of traffic safety facilities such as sidewalks and the promotion of effective traffic regulation.

As such efforts, in addition to the implementation of low speed restrictions such as the development of the "Zone 30" designed to limit the maximum speed to 30 kilometers per hour, safety measures including the development of road signs and road displays which can be seen easily such as high luminance signs and markings as well as the conversion of traffic lights to LEDs, the installation and expansion of side strips, the use of zone restrictions, etc, as well as traffic smoothing measures such as the improvement of traffic lights and, the provision of traffic information in real time by means of optical beacons and traffic information boards

need to be promoted further.
In addition, it will be necessary to prepare standard specifications for bump and narrowing designed to exclude through traffic and reduce vehicle speed and eliminate potentially dangerous places using big data, and to implement effective and efficient measures in a cooperation of the government, local governments and community resides in areas with a high number of traffic accidents.

IV Overview of the 10th Traffic Safety Basic Plan (Road Transport)

1. Foreword

The plan period shall be five years from FY2016 to FY2020.

2. Basic Philosophy of Plan

[Towards a Society without Traffic Accidents]

™ In order to build a truly affluent and vigorous society, it is extremely important as its prerequisite to realize a society where each citizen can live safely and securely.

™ In consideration of the presence of victims of traffic accidents based on the principles of respect for human life and dignity, and in light of vast social and economic losses brought about by traffic accidents, we should aim at a society without traffic accidents ultimately.

[People First Traffic Safety Philosophy]

™ People First Traffic Safety Philosophy designed to ensure safety of vulnerable road users such as elderly people, disabled people, children, etc. must be prioritized in order to promote all sorts of policies and measures.

[Active Use of Advanced Technologies]

™ In order to further reduce the number of traffic accidents in all traffic fields and realize a society without traffic accidents, it is necessary not only to promote the dissemination and use of advanced technologies and information that will contribute to the securing of traffic safety, but also to actively engage in efforts for the research and development of new technologies.

1. Three Factors that Constitute Transport Society

™ The Ministry will formulate policies on the three factors of "People," "Transport Organizations" and "Transport Environment" that constitutes transport society will be formulated and strongly promote them with the understanding and cooperation of citizens.

2. Use of Information Communication Technologies (ICT)

™ The Ministry will actively use Intelligent Transport Systems (ITS), enhance and strengthen comprehensive investigation and analysis of traffic accident causes, and promote necessary research and development.

3. Enhancement of Rescue and First-Aid Activities and Support of Victims

™ The Ministry will enhance rescue and first-aid activities when a traffic accident occurs, and further enhance the support of victims in all traffic safety fields.

4. Promotion of Traffic Safety Activities based on Participation and Cooperation

™ In order to actively promote the voluntary participation of citizens in traffic safety activities, the Ministry will promote traffic safety activities based on participation and cooperation, such as the establishment of a mechanism in which each citizen can participate from the planning stage of a policy.

5. Implementation of Effective and Efficient Measures

™ The Ministry will ensure efficient budget implementation by engaging in measures that will produce the maximum effect in a concentrated manner according to the actual traffic situation of each community in view of the difficult financial situation.

6. Ensuring Further Safety in Public Transport

™ Maintenance audit and transport safety management evaluation will be enhanced and strengthened. In order to prevent an accident due to lack of health management or a sudden change in physical conditions of a driver, the use of the "Health Management Manual of Drivers of Fleet Vehicles" should be made thoroughly known. In addition, considering the holding of the Tokyo Olympic and Paralympics Games in 2020, the safety of public transport should be ensured in combination with the measures against terrorists by the government.

3. Safety of Road Transport

1. Basic Idea

(1) Towards a Society without Traffic Accidents

™ Based on the principles of respect for human life and dignity, we should aim at a society without traffic accidents ultimately.

™ In order to aim for a further leap ahead towards a society without traffic accidents, it is import to further promote the use of advanced technologies as well as information that contribute to the securing of traffic safety in daily progress.

™ It is also important to create an environment where traffic accidents do not occur easily by promoting comprehensive traffic safety measures from all perspectives, including a life aspect which includes work-life balance and an environmental aspect.

(2) Ensuring Safety of Pedestrians

It is important to ensure safety of pedestrians through the development of sidewalks under people first traffic safety philosophy

(3) Promotion of Policies based on the Actual Situation of a Community

™ Each community should play the main role in determining the most effective combination of

measures for traffic safety based on its actual situation regardless of whether the community is a prefecture or a municipality.

™ Moreover, it is useful and important to promote traffic safety measures in an integrated manner, combined with crime prevention and disaster prevention in order to comprehensively improve safety performance in a community.

(4) Role Shearing and Coordination Strengthening

It is useful that schools, homes, workplaces, organizations, companies and the like take respective responsibility and strengthen coordination with each other by shearing roles and that residents actively participate in and cooperate with all sorts of manners in a variety of activities related to traffic safety in each stage of planning, execution and evaluation.

(5) Participation and Cooperation of Traffic Accident Victims

Since traffic accident victims understand the misery of a traffic accident through their own experience, their participation and cooperation are important.

2. Goals of Safety in Road Transport

(1) Situation of Traffic Accidents on Roads

™ The number of fatalities within 24 hours in traffic accidents in our country was 16,765 in 1970, but the number of fatalities decreased to 4,113 in 2014, that is, to less than one fourth of the number of the peak time (16,765 in 1970).
However, the number of fatalities was 4,117 in 2015 which was the last year of the 9th Traffic Safety Basic Plan, and the goal of decreasing the number of fatalities within 24 hours to less than 3,000 by 2015 could not be achieved regrettably.

™ Incidentally, the number of casualties and the number of traffic accidents have been decreasing in recent years after having peaked in 2004 and the number of casualties was 670,140 in 2015. As such, although the goal of the 9th Traffic Safety Basic Plan has been achieved, the absolute number still remains at a high level.

(2) Goals in the Traffic Safety Basic Plan

• To achieve the safest road transport in the world by decreasing the number of fatalities within 24 hours to less than 2,500 (*) by 2020.
(*when this figure 2,500 is multiplied by the ration between the number of fatalities within 24 hours and that of fatalities within 30 days in 2015, the figure of 3,000 is obtained.)

, To decrease the number of casualties to less than 500,000 by 2020.

™ It is the ultimate goal to realize a society without traffic accidents. Since it is difficult to realize this goal overnight, however, it is aimed to realize fatalities within 24 hours to less than 2,500 per year by 2020 which is the last year of the plan period in the present plan.

™ When this figure 2,500 is multiplied by the ration (1.18) between the number of fatalities within 24 hours and that of fatalities within 30 days in 2015, the figure of about 3,000 is obtained and the number of fatalities within 30 days per a population of 100,000 people is 2.4. If we look at the number of fatalities within 30 days per a population of 100,000 people of 30 countries published by the International Road Traffic Accident Database (IRTAD), the number of Japan in 2013 stands at 4.0 which is the 9th smallest number. However, if this goal is achieved and if the situation of traffic accidents in other countries does not change significantly, Japan will be the smallest country in terms of the number of the fatalities.

™ In 2009 and 2010, the mid-term goal of “reducing the number of fatalities in traffic accidents to half by 2018 and further to less than 2,500” was established, and it is aimed to achieve this mid-term goal in the planned period of the present plan.

™ In addition, it is aimed to reduce the number of casualties to less than 500,000 per year by 2020 by engaging more actively in reducing the number of accidents itself and the number of casualties.

™ Moreover, it is also aimed to reduce the number of fatalities during walking and riding on a bicycle with a higher composition ratio of fatalities than other countries by reducing the ratio at a higher rate than the reduction rate of the overall number of fatalities in road traffic accidents.

3. Measures for Safety in Road Transport

(1) Perspective for Considering Road Transport Safety Measures in the Future

While the diminution of the number of fatalities in traffic accidents has been decreasing due to the increase in the population of elderly people, the number of fatalities in traffic accidents in 2015 increased for the first time in 15 years. In addition, a number of fatal accidents resulting from violation of safe driving obligations, such as lack of safety confirmation, inattentive driving, and careless observance of other people’s movements still occur, and its ratio is relatively high. For this reason, it is necessary to cope with changes in socioeconomic situation and traffic situation to adopt more effective measures by enhancing the collection and analysis of information on real traffic accidents and promote new measures which are expected to be useful based on the past traffic safety measures.

• Subjects to be Dealt with in a Focused Manner in order to Reduce Damage Caused by Traffic Accidents

A Ensuring Safety of Elderly People and Children

When compared to other foreign countries, the percentage of fatalities of elderly people in traffic accidents in our country is very high, and considering that the aging of our country will progress very rapidly, it is necessary to form a traffic society in which elderly people can go out and transfer safely and securely.

In addition, in order to realize a society in which childbirth and childrearing can be carried out with peace of mind, safety traffic measures not only from the crime prevention perspective but also from the perspective of protecting children from traffic accident will be further required.

B. Ensuring Safety of Pedestrians and Bicycles

When compared to the United States and European countries, the percentage of pedestrians in the number of fatalities in traffic accidents in Japan is high with more than 30%, and in particular, its percentage is accounts for approx. 50% in elderly people of 65 years old or over and children of 15 years old or less.

In order to realize a safe and secure society, it is indispensable to ensure safety of pedestrians who are more vulnerable than automobiles. In particular, it is further required to enhance the safety performance of roads familiar to elderly people and children.

In addition, the composition rate of the number of fatalities during riding on a bicycle is also high compared to the United States and European countries. While a bicycle gets damaged when it collides with a car, a bicycle may be liable for the collision when it collides with a pedestrian. Thus, respective measures need to be taken.

C. Ensuring Safety in Community Roads

It is an important issue to ensure traffic safety on community roads which are daily used by community residents. For this reason, based on taking fully into consideration a variety of circumstances such as road transport situation in each community, it is important to further promote measures to ensure traffic safety on community roads in a comprehensive community development by taking all sorts of measures including the development of a road transport environment designed to control the speed of automobiles on community roads in each community, the strengthening of crackdown of traffic violations, the dissemination of safe travelling methods, among other measures, and by promoting traffic safety measures on arterial roads to prevent cars that should travel there from flowing into community roads and the smoothing of traffic flow.

, Matters to be Focused in Order to Create an Environment where Traffic Accidents do not Occur Easily

A Use of Advanced Technologies

As countermeasures against traffic accidents caused by inattentiveness of a driver and traffic accidents caused by the decrease in physical functions of the elderly, it is necessary to promote the introduction of systems in light of technical development, such as a system to support safety driving designed to prevent accidents due to delay in danger recognition by the driver or error in driving operation and a system to provide rescue and first aid immediately after a traffic accident occurs, among other systems.

B Promotion of Finely-tuned Measures based on the Actual Situation of Traffic Accidents

It will be necessary to reduce these traffic accidents by effectively implementing more finely-tuned measures by analyzing traffic accidents which have been difficult to control by the measures implemented in the past, based on detailed information on where and how the accidents occurred.

C Promotion of Community-based Traffic Safety Measures

It will be necessary for community residents to show more interest in traffic safety measures than before and to actively participate in the formation of safe and secure traffic society in the community, whereby to allow them to become conscious of their role.

In addition, in order to realize a safe traffic environment, we will create a social system to indirectly support the attitude and behavior of drivers who play the main role in the traffic society in light of the traffic situation of each community regardless of whether it is a prefecture or a municipality in cooperation among the administration, relevant organizations and residents.

(2) Policies and Measures to be Implemented

• Development of Road Transport Environment

In order to develop a road transport environment, it is aimed to promote the separation of functions between the arterial roads that play the main role in vehicle traffic and the "daily life roads" (community roads) and to promote the safety of the daily life roads.

In addition, from the perspective of protecting children from accidents and forming a traffic society in which elderly people and disabled people can go out securely with peace of mind, it is

aimed to strengthen the development of people first road environment in which a secure and safe walking space is ensured.
Moreover, in order to reduce increasing accidents between pedestrians and bicycles, a comprehensive development of a bicycle use environment will be promoted under the principles that bicycles are vehicles, through the development of bicycle roads, bicycle-specific transit zones and bicycle travelling space networks on roads in which bicycles must transit.

, Thorough Dissemination of Traffic Safety Philosophy
Stepwise and systematic traffic safety education will be provided to small infants to adults. In particular, not only the awareness of traffic safety of elderly people is raised, but also enlightenment and guidance aimed to raise awareness and consideration for elderly people will be strengthened.
In addition, assistance to various services and activities, such as the training of traffic safety leaders and the provision of necessary materials for traffic safety will be enhanced to support their independent activities for private organizations involved in traffic safety, and assistance that will contribute to the improvement of qualifications will be provided to traffic volunteers in order to support their independent activities and promote the development of a communication and cooperation system with each other.
Moreover, not only the dissemination and enlightenment on the correct manner to ride on a bicycle considering pedestrians and other vehicles will be strengthened with a view to promoting the safe use of bicycles, but also the taking-out of liability insurance by bicycle users will be accelerated in order to relieve victims of accidents involving bicycles.

ƒ Ensuring Safe Driving
In addition to the enhancement of driver education, it is aimed to raise awareness of drivers of the vulnerability of pedestrians including elderly people, disabled people and children as well as cyclists on top of the fact that pedestrians have priority on zebra crossings.
In addition, the provision of comprehensive information on road transport will be enhanced by promoting safe driving management measures, enhancing safety measures on the part of cargo transportation operators and using ICT.
Moreover, the efforts to establish safety awareness and to observe full compliance based on the comprehensive automobile safety plan for business in which it is aimed to reduce the number of fatalities as well as injuries in accidents by business vehicles by half will be promoted.
In particular, it is aimed to further reduce accidents by promoting the provision of new services designed to promote safe driving on the part of the private sector, such as safe driving guidance service, telematics insurance (usage-based insurance) among others, based on the building of operations models for accident protection using big data and a variety of driving information including sudden acceleration, sudden braking, etc.

„ Ensuring Safety Performance of Vehicle
Regarding ASV technologies, those already marketed, such as the collision mitigation brake system, will enhanced and strengthened in its maintenance standards including its compulsory installation in light of the international trends,, and regarding new technologies which will be shortly made available for practical use such as the system to cope with driver's anomaly, its dissemination promotion will be continuously carried out through the establishment of technical guidance and evaluation of the usefulness of ASV technologies.

… Maintenance of Road Transport Order
The road transport order will be maintained through strict enforcement of traffic rules, investigation of traffic accident cases, and crackdown of motorcycle gangs.
In addition, adequate and elaborate investigations of traffic accident cases will be further promoted.
Moreover, caution and warning will be actively issued against violations by bicycle users that endanger pedestrians walking on a sidewalk and those malicious and dangerous bicycle users that do not comply with them will be arrested.

† Improvement of Rescue and Emergency Medical System
It is aimed to develop rescue and emergency systems as well as emergency medical systems by securing a close coordination and cooperation between emergency medical institutions.
In particular, from the perspective of further improving the survival rate and life-saving effect of injured people, the development of an emergency reporting system from the accident site and the dissemination of first-aid on the emergency site will be promoted.

‡ Enhancement and Promotion of Victim Support
Under the Basic Act on Crime Victims, policies for traffic accident victims will be promoted in a comprehensive and planned manner.

ˆ Enhancement of Research and Development and Investigative Research
In order to accurately understand the actual situation of traffic accidents and contribute to the study and planning of effective detailed traffic safety policies aimed to further reduce the number of casualties in traffic accidents, not only an accident analysis of roads and vehicles from a

comprehensive perspective is performed, but also studying the building and use of new traffic accident database in cooperation with emergency medical care institutions and the use of micro data from a video recording type drive recorder which is a recording device mounted on a car for the analysis of traffic accidents.

In addition, the attitude and awareness of people will be raised by actively providing them with information related to investigations and analysis of traffic accidents owned by both public and private sector.

*Overview of the 10th Traffic Safety Basic Plan (Railway Transport,)

Future Direction of Safety Measures for Railway Transport
From the 10th Traffic Safety Basic Plan

1. Basic idea
The railway that is capable of transporting people and goods alike massively, rapidly and regularly is a means of transportation used by 230 million people every year and indispensable for the life of the people. Therefore, it is necessary to promote all sorts of safety measures in a comprehensive manner, such as measures for serious railway accidents and accidents at platforms, etc., in order to aim for a safer railway transport.

2. Goals of Safety of Railway Transport
(1) Current Status of Railway Accidents
Although railway accidents are on a decline in the long term, they remain in a flat trend in recent years. Since 2011, the number of accidents was about 800 and there were 742 accidents in 2015.
In addition, the number of fatalities in 2015 was 273 and that of injuries was 397 in 2015.
Incidentally, except the derailment accident on the JR West Fukuchiyama Line in which 106 passengers were killed and the derailment accident on the JR East Uetsu Line in which 5 passenger were killed occurred both in 2005, no fatal accident occurred from 2006 to 2015.
(2) Goals in the Traffic Safety Basic Plan
- Aim at zero fatality in passengers
- Aim to reduce the number of fatalities in the overall number of railway accidents

3. Measures for Railway Transport Safety
(1) Perspective
Since railway accidents are on a decline in the long term, it is recognized that the policies based on the past Traffic Safety Basic Plans have been effective to a certain extent. However, a number of casualties may be caused once a train collision or a derailment occurs, policies will be promoted from a comprehensive perspective in order to aim at safer railway transportation and prevent the occurrence of serious train accidents.
In addition, since the combined number of personal injury accidents such as contact accidents at platforms and crossing obstacle accidents accounts for about 90% of railway accidents as a whole and the resulting number of fatalities remains flat, effective measures need to be implemented in order to prevent accidents in which users are involved.
(2) Main Measures to be Taken
[Key Measures and New Measures]
- ™ Improving the safety performance of railway facilities
- ™ Disseminating knowledge regarding railway transport safety
- ™ Implementing maintenance audits
- ™ Implementing evaluation of transport safety management

- Improvement of Railway Environment
  In order to ensure railway transport safety, it is necessary to maintain high reliability with railway facilities and operation maintenance facilities to ensure safety performance of the overall system. For this reason, safety measures including the development of operation maintenance facilities will be taken.
- , Dissemination of Knowledge about the Safety of Rail Traffic
  Public relations activities will be actively performed in the Platform Zero Accident Campaign in which the danger of “doing something while walking” by railway users on the platforms is made known and warning is given to drunken persons in order to disseminate the correct knowledge about railway safety.
  In addition, taking advantage of these opportunities, emergency measures will be made known thoroughly, including the development of easy-to-understand displays for safety facilities such as an emergency buttons at station platforms and at crossings, and the use of these emergency buttons.
- *f* Ensuring the Safe Operation of Railways
  In order to prevent serious train accidents, not only maintenance audits are carried out on railway operators to give appropriate instructions, but also rapid and adequate measures will be taken when a large-scale accident occurs. Moreover, the holding of railway motorman qualification, sharing and use of information on accidents as well as information on troubles on safety, meteorological information will be enhanced.
  In addition, the evaluation of transportation safety management whereby the government checks the status of the building or improvement of safety management system by railway operators will be carried out. The government will check the efforts of operators to enhance awareness of fully observing compliance in the evaluation of transportation

safety management.

„ Ensuring the Safety Performance of Railway Vehicles
Based on occurred accidents and the progress in science and technology, technical standards for maintenance of the structure and device of railway vehicles will be adequately revised at appropriate moments.

… Improvement of Rescue and Emergency Medical System
In order to rapidly and adequately carry out evacuation guidance as well as rescue and first-aid activities when a serious railway accident occurs, not only disaster prevention exercises at main stations will be enhanced, but also coordination and cooperation systems between railway operators and fire departments, medical institutions and other relevant organizations will be strengthened.
In addition, dissemination and enlightenment activities of first-aid such as cardiopulmonary resuscitation including the use of an automated external defibrillator (AED) will be promoted.

† Promotion of the support of victims
In order to ensure support of victims in public transport accidents, the Office for Public Transport Accident Victims Support was established in the Ministry of Land, Infrastructure, Transport and Tourism in April of 2012 to steadily conduct support efforts for public transport accident victims.

‡ Investigation of causes and prevention of recurrence of railway accidents
In order to conduct investigations of causes of a railway accident or a symptom of a railway accident (serious railway incident) rapidly and adequately, not only the improvement of investigation technique through the provision of professional training to staff in charge of investigations is promoted, but also the improvement in analytical abilities will be achieved by using a variety of equipment for investigation.
In addition, necessary policies or measures will be implemented based on investigation results of accidents to contribute to railway transport safety.

ˆ Enhancement of Research and Development and Investigative Research
Research and development and investigative research for the improvement in the railway safety performance will be promoted in the Traffic Safety and Environment Research Institute and Railway Technical Research Institute.

Future Direction of Traffic Safety Measures at Crossings
From the 10th Traffic Safety Basic Plan

1. Basic idea
Railroad crossing accidents are on a decline in the long term. However, on the other hand, railroad crossing accidents account for about 30% of railway operation accidents and there are still railroad crossings which need to be improved. In the circumstance, it is aimed to realize a society without railroad crossing accidents by comprehensively and actively promoting measures to prevent railroad crossing accidents.

2. Goals of Traffic Safety in Railroad Crossings
(1) Current Status of Railroad Crossing Accidents
Railroad crossing accidents (railroad crossing failure and railway train accidents resulting from this out of railway operation accidents) are on a decline in the long term. The number of accidents was 242 and the number of casualties was 206 in 2015.
Railroad crossing accidents have been decreasing and it is thought that this is mainly due to the active promotion of safety measures, such as improvement of railroad crossings. However, railroad crossing accidents still account for about 30% of railway operation accidents and there are still railroad crossings which need to be improved.

(2) Goals in the Traffic Safety Basic Plan
It is aimed to reduce the number of railroad crossing accidents by 2020 by about 10% compared to 2015.

3. Measures for Traffic Safety in Railroad Crossings
(1) Perspective
When considering that both the number of railroad crossing accidents and the number of casualties due to railroad crossing accidents are on a decline, it is recognized that the policies based on the 9th Traffic Safety Basic Plan has been effective to a certain extent with respect to traffic safety measures at railroad crossings.
However, in consideration that once a railroad crossing accident occurs, grave consequences are caused with many casualties, that many railroad crossings which require a variety of measures, such as the installation of

an overhead crossing, structural reform, development of grade separation facilities for pedestrians, development of railroad crossing safety equipment, traffic restrictions, and reorganizations still remain, and that these measures will contribute to a smoothing of traffic flow by mitigating traffic congestion and to environmental conservation at the same time, more effective measures will be promoted comprehensively and actively in light of the situation of each railroad crossing, including measures for crossings whose gates always seem to be closed, measures for elderly pedestrians, etc.

(2) Main Measures to be Taken

[Key Measures and New Measures]

™ Promotion of the installation of overhead crossings, structural reform, and the development of grade separation facilities for pedestrians.

™ Development of railroad crossing safety equipment and implementation of traffic restrictions (promotion of measures for elderly pedestrians, etc.)

™ Promotion of the reorganization of railroad crossings.

™ Other measures designed to improve traffic safety and traffic flow at railroad crossings

• Promotion of the introduction of overhead crossings, structural reform, and the development of grade separation facilities for pedestrians at railroad crossings.

Railroad crossings which are closed for a specially long time (crossings whose gates always seem to be closed) and railroad crossings on main roads with a large amount of traffic will be subject to elimination or removal through the installation of continuous elevated railroads which is the fundamental traffic safety measure, and the grade separation will be introduced as many as possible for the installation of new roads or repair of existing roads, and the construction of new railway lines.

In addition,

, Development of railroad crossing safety equipment and implementation of traffic restrictions

Since the accident occurrence rate is lower at railroad crossings with a crossing gate than at railroad crossings without it, the installation of crossing gates will be steadily carried out in consideration of the use situation and the width of each railroad crossing as well as the implementation situation of traffic restrictions.

In addition, the installation of omnidirectional warning device and emergency push buttons as well as the sophistication of crossing obstructing detectors which are expected to be effective for pedestrians including elderly people will be promoted.

ƒ Promotion of the reorganization of railroad crossings.

In combination with the implementation of projects such as the introduction of overhead crossings and structural reform, and in consideration of the use situation and the detour situation of nearby railroad crossings, those railroad crossings of the third and fourth type that are recognized not to hinder the transit of community residents will be reorganized and the reorganization of other railroad crossings than these will be promoted.

„ Other measures designed to improve traffic safety and traffic flow at railroad crossings

Railroad crossings that need urgent measures will be published in the “Carte of Safe Transit of Railroad Crossings” to be prepared and measures will be promoted according to the situation of each railroad crossing while keeping transparency.

In addition, a campaign for the prevention of railroad crossing accidents will be promoted in order to improve awareness of traffic safety and to make known emergency measures such as the operation of an emergency push button to car drives and passers-by of railroad crossings such as pedestrians.

Future Direction of Maritime Transport Safety Measures

10th Traffic Safety Basic Plan

1. Basic idea

It is indispensable for Japan that is surrounded by seas to use them in order to support economy, industry and our life. However, once an accident of a ship occurs on the sea, valuable lives are lost and moreover, there is a danger that economic activities will be greatly affected by the disruption of maritime transport due to the closure of shipping routes and traffic restrictions.

In order to ensure safety in the whole maritime transport, it is necessary to promote comprehensive and planned safety measures both in software and hardware through cooperation among relevant administrative agencies and

a wide variety of people including operators, fishermen and the like.
In addition, it is necessary to strongly promote search and rescue activities for passengers and the crew rapidly and appropriately when an accident occurs and to strengthen self-rescue measures.

2. Goals of Maritime Transport Safety

(1) Current Status of Marine Accidents

The number of ships which encountered maritime accidents between 2011 and 2015 was an average of 2,256, which is a decrease of about 9% compared to the average of the 5 years before then. The number of deaths and missing persons in ship accidents or by falling down from a ship to the sea was an average of 198 between 2011 and 2015, which is a decrease of about 21% compared to the average of the 5 years before then.

(2) Goals in the Traffic Safety Basic Plan

- It is aimed to reduce the number of ship accidents which occur near Japan (except foreign ships not calling any Japanese port. The same applies hereinafter.) to less than half (about 1,200 ships or less) from an average (2,256) during the 9th Plan by 2020s and to reduce the number of ship accidents which occur near Japan by at least 2,000 ships or less by 2020.
- , It is aimed to maintain and ensure the low occurrence rate of collision and stranding accidents which has been reduced due to the implementation of measures such as the obligation to gather information in sea areas with heavy marine traffic (less than 76 ships per every 1 million passing ships) and to prevent the occurrence of a large-scale marine accident which has a large social influence including the passage closure and many casualties, reducing the occurrence to zero.
- ƒ Since it is important to maintain and ensure a high rescue rate in order to reduce the number of deads and missing persons in marine accidents, it is aimed to increase the rescue rate to over 95%.

3. Measures for Maritime Traffic Safety

(1) Perspective

- Prevention of human error-induced accidents
- , Prevention of a large-scale marine accident in areas with heavy marine traffic
- ƒ Prevention of accidents of passenger ships
- „ Strengthening of a life rescue system and self-rescue measures

(2) Main Measures to be Taken

[Key Measures and New Measures]

- ™ Ensuring safety in areas with heavy marine traffic
- ™ Prevention of human errors
- ™ Ensuring safety by enhancing ship operation control
- ™ Ensuring safety by developing ship safety standards
- ™ Safety measures for small boats (pleasure boats, fishing boats, etc.)
- ™ Improvement of the lifejacket wearing rate
- ™ Strengthening the system for acquiring early information on marine accidents
- ™ Enhancement and strengthening of rapid and accurate rescue force system
- ™ Improving and strengthening maritime accident rescue system

- Improvement of Maritime Traffic Environment

  In consideration of the increase in size and speed of ships, diversification of the use of the sea areas and the increase in complexities of maritime traffic, and in order to ensure safe and smooth navigation of ships and safety in ports and bays, not only the development of routes, harbors, fishing ports, navigation signs, etc. is carried out, but also the enhancement of information on safety such as charts, waterway magazines, ocean current data, etc. and the development of information provision system utilizing ICT will be carried out.

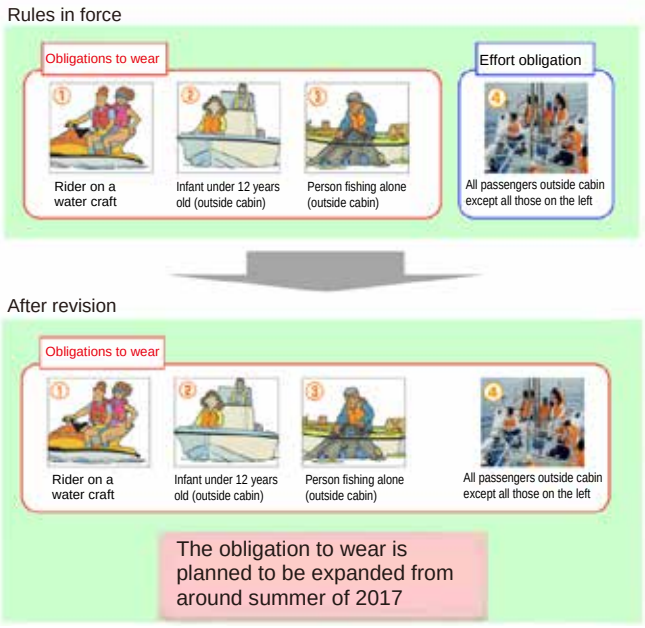
- , Dissemination of Knowledge Regarding Maritime Transport Safety

  In order to ensure safety of maritime transport, it is necessary to raise awareness of the prevention of marine accidents not only in people involved in maritime affairs, but also in enthusiasts of marine leisure. For this reason, all sorts of opportunities will be used to disseminate the idea for accident prevention.

- ƒ Ensuring Safe Operation of Boats and Ships

  In order to ensure safe navigation of ships, the prevention of human errors in ship navigation, improvement of qualifications in crew and maritime transport operators, audit by safety management and seafarers labor inspector, full instructions on the prevention of recurrence of accidents and the evaluation of transport safety management will be promoted among other measures and the supervision of qualification requirement of crews of foreign ships will be also promoted.

Increased obligations to wear a life jacket



„ Ensuring safety of ships
In order to ensure safety of ships, not only the standards on the structure and equipment of ships, maritime transport of dangerous goods and the safety management system are developed and the inspection systems enhanced under international cooperation, but also supervision of the structure and equipment of foreign ships calling Japanese ports will be promoted.

… Enhancement of Safety Measures for Small Boats
Since maritime accidents of small boats account for about 70% of the total of maritime accidents and many of their causes are human errors, thorough observance of compliance requirements for boat's operators, safety measures such as the improvement of the life jacket wearing grate and the development of environment such as the development of port parks will be promoted.

† Maintenance of Law and Order on Maritime Transport
Guidance and crackdown on violations of law regarding maritime transport will be provided and the law and order regarding maritime transport maintained.

‡ Enhancement of Rescue and Emergency Services Systems
It is aimed not only to shorten the response time through the expansion of mobile rescue systems using the mobility and high speed of a helicopter and enhance sophisticated rescue and first-aid systems supported by emergency life-saving technicians, but also to promote the smoothing of rescue and first-aid activities in coordination with relevant governmental agencies as well as private rescue organizations such as the public interest incorporated association Marine Rescue Japan, etc. In particular, it is aimed to improve the rescue rate of ships of less than 20 tons whose rescue rate in falling down from a ship to the sea is remarkably low.
In addition, it is aimed to make adjustment so that the range of drift prediction may be adequate through the accumulation and analysis of drift prediction results by a new program and to improve the precision of drift prediction so that the range of drift prediction may be narrowed down by enhancing sea current data

Hoisting rescue by a helicopter

ˆ Promotion of the support of victims
The enhancement of liability insurance

system for the protection of victims including the conclusion of insurance contract with respect to the liability of ship owners for damage caused to a third party in ship accidents will continue to be addressed.
In addition, in order to deal with damage compensation for injury or death or damage caused by a pleasure boat, pleasure boat users will be urged to take out insurance by informing them of the availability of insurance for pleasure boats using opportunities such as ship inspections.

‰ Investigation of causes and prevention of recurrence of ship accidents

In order to conduct investigations of causes of a ship accident or a symptom of a ship accident (serious ship incident) rapidly and adequately, not only the improvement of investigation technique through the provision of professional training to staff in charge of investigations is promoted, but also the improvement in analytical abilities will be achieved by using a variety of equipment for investigation.
In addition, detailed analysis of serious maritime accidents will be carried out using a simulator or test tank for their reconstruction, in addition to conducting analysis of accident causes by analyzing rapidly information at the occurrence of a maritime accident at the "maritime accident analysis center" established in the National Maritime Research Institute. The analysis results will be reflected in safety measures in maritime transport.

Š Enhancement of investigative researches for safety measures in maritime transport

In addition to developing a method to evaluate risks of ship that handle new cargo and fuels such as low flash point liquids at the National Maritime Research Institute, research for measures to reflect risk evaluation results in safety measures and ship designs will be conducted.

Future Direction of Air Transport Safety Measures

10th Traffic Safety Basic Plan

1. Basic idea

The number of accidents of private aircrafts in Japan has been on a long-term decline, and no fatal passenger accident of specified Japanese air carriers (Japanese air carriers that manage air transport operations using aircrafts with more than 100 passenger seats or the maximum take-off weight of 50,000 kgs) has occurred since the Mount Osutaka airline disaster of 1985. However, a few incidents of large aircrafts which play the main part in air transport operations still occur every year caused mainly by aircraft upset due to turbulence, and at the same time, there is a sign that the fall is coming to an end. In addition, serious incidents, troubles on safety, landing failure accidents and others occur due to human errors and aircraft failure. Under the circumstances, in order to reduce air transport accidents and prevent safety troubles that may lead to an accident, measures will be implemented for air transport safety to ultimately aim at a society without an air accident.

2. Goals of Air Transport Safety

(1) It is aimed to achieve a zero occurrence rate of both fatal accidents and total loss accidents of regular flights operated by the Japanese air transport operators.

(2) It is aimed to reduce by 7% a year the actual average value of a total of 14 indexes regarding the air accident occurrence rate and serious incident occurrence rate of the last 5 years.

3. Measures for Air Transport Safety

(1) Perspective

In Japan, the efforts to improve safety have been promoted through steps including a stepwise introduction of the State Safety Program (SSP); setting of safety target indexes of the overall aviation and a management plan for their achievement; agreement on individual safety target indexes with each service provider; and continuous monitoring, supervision and audit of the Safety Management System (SMS). Further measures will be promoted mainly based on these aviation safety measures.
In addition, it is important to promote the response to the increase in aviation demands as well as safety maintenance and improvement of the air transport system in an integrated manner.

(2) Main Measures to be Taken

[Key Measures and New Measures]

™ Further promotion of aviation safety program
™ Promotion of safety measures for small aircrafts
™ Adequate implementation of aircraft inspections
™ Response to increasing aviation demand and enhancement of services
™ Safety measures of unmanned aerial vehicles

• Further promotion of aviation safety program

In addition to the past safety supervision based on the compliance with laws and regulations, the government manages risks by setting safety indexes and safety target values by engaging in various policies through the

introduction of the SSP, and will promote further aviation safety measures by collecting, analyzing and sharing safety information based on the compulsory reporting system and voluntary reporting system.

, Ensuring safe navigation of aircrafts

Through the system to regularly examine maneuvering skills and the holding of safety seminars with a view to preventing accidents of small aircrafts, not only the maintenance of skills of pilots and matters required for ensuring safety are made fully known, but also further measures will be studied.

In addition, the evaluation of transport safety management in which the government checks the building and improvement status of the safety management system of air transport operators will be conducted. Through the evaluation of transport safety management, the government will accurately verify the awareness of operators of the need to observe and abide by compliance regulations.

ƒ Ensuring safety performance of aircrafts

In addition to the formulation of safety standards for aircrafts in accordance with the technological progress and the implementation of investigations on technologies which may contribute to the improvement in safety, information of the safety performance of aircrafts of Japan and information for ensuring safety to be obtained from foreign governments and foreign manufactures will be collected and analyzed to be provided to relevant people.

In addition, the enhancement of the inspection system of aircrafts and the system for examination, guidance and supervision of operations and maintenance will be addressed.

„ Development of air transport environment

In the wake of a steady growth in aviation demands, it is expected that the air traffic volume within the Japanese air space will exceed the current control processing capacity by around 2025. In the circumstances, a radical restructuring of domestic air routes and airspace will be carried out to respond to this situation while maintaining safe and efficient operations.

In addition, the development of a new control information processing system which integrates the existing system will be promoted.

… Safety measures of unmanned aerial vehicles

A system designed to ensure safe operation and sound use of unmanned aerial vehicles will be built in coordination with relevant ministries and agencies.

† Promotion of research and development for air transport safety

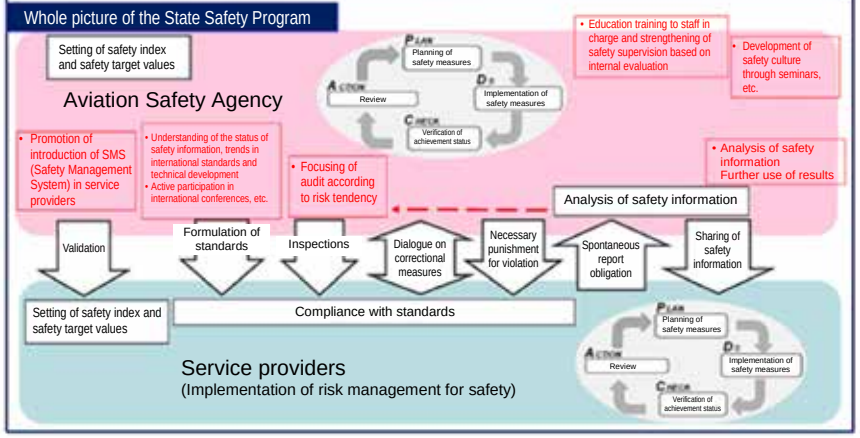
A comprehensive research and development will be promoted by strengthening mutual communication cooperation system among relevant R & D institutions. In addition, advanced research and development on air safety will be implemented, which includes the technology to prevent air accidents and safety technologies aimed to protect passengers when an accident occurs.

Promotion of the State Safety Program

Ministry of Land, Infrastructure, Transport and Tourism

™ Civil Aviation Bureau of the Ministry of Land, Infrastructure, Transport and Tourism (Aviation Safety Agency) will implement the following as the “State Safety Program (SSP)” formulated in accordance with the Annex 19 to the Convention on International Civil Aviation

- Setting of safety index and safety target values
- Formulation and review of safety audit standards
- Strengthening of audits etc. for business providers
- Collection and analysis of safety information and promotion of preventive safety measures
- Fostering of safety culture and strengthening of safety supervision



‡ Investigation of causes and prevention of recurrence of aviation accidents

In order to conduct investigations of causes of an aviation accident or a symptom of an aviation accident (serious aviation incident) rapidly and adequately, not only the improvement of investigation technique through the provision of professional training to staff in charge of investigations is promoted, but also the improvement in analytical abilities will be achieved by using a variety of equipment for investigation.

ˆ Enhancement of Rescue and First-Aid activities

In order to carry out rapidly and adequately search and rescue operations when an aircraft is distressed or lost, not only the coordination between the rescue coordination headquarters and relevant administrative institutions is strengthened, but also a search and rescue system in coordination with the search and rescue organization of adjacent countries will be established.

‰ Promotion of Victims Support

In order to ensure victims support in public transport accidents, the public transport accident victims support office was established at the Ministry of Land, Infrastructure, Transport and Tourism in April 2012, which is engaged in the effort to support victims of public transport accidents, including encouraging public transport operators to prepare support plans for victims.