

# **The Traffic Safety Basic Plan**

**Achieving a Society with No Traffic Accidents**

**March 29, 2021**

**National Council for Traffic Safety Measures**

# Foreword

Due to the lack of traffic safety facilities and the underdeveloped technology for ensuring vehicle safety in the face of the rapid development of a car-oriented society, the period from around 1950 to 1970 saw a significant increase in the number of fatalities and injuries in road traffic accidents.

For this reason, ensuring traffic safety became a major social issue, and in June 1970, the Basic Act on Traffic Safety Measures (Act No. 110 of 1970) was enacted in order to promote comprehensive and systematic traffic safety measures.

On this basis, Traffic Safety Basic Plans have been drawn up every 10 years over the 50 years since 1971, with the national government, local authorities, and related private organization working together to implement strong traffic safety measures in the fields of land, maritime, and air traffic.

As a result, compared to 1970, when 16,765 people died in road traffic accidents in a period known as the “traffic war,” the number of fatalities in 2020 was 2,839, a reduction to about one-sixth of that number. This was the lowest figure since 1948, when the current traffic accident statistics began to be compiled, and the first time the number of fatalities has fallen below 3,000.

This is the result of many years of effort by not only the national government, local authorities, and related private organizations, but also the public as a whole.

However, even now, every day sees new victims of traffic accidents (victims themselves, their families, or the bereaved. The same applies below), and we must not turn our eyes away from this reality. In recent years, there has been an ongoing problem of accidents caused by elderly drivers and tragic accidents in which children are the victims, and it is especially important to protect the irreplaceable lives of children, who will lead the next generation, from traffic accidents.

In addition, in the fields of rail (including tramways. The same applies below), maritime and air transportation, the development of mass and high-speed transportation systems means that there is always a risk that an accident will be serious if it occurs.

Needless to say, the prevention of traffic accidents is an urgent and important issue that not only the national government, local authorities, and related private organizations, but also each and every citizen must do their utmost to tackle. On the principle of respect for human life, and with the aim of achieving a society free of traffic accidents, we must establish a general outline of comprehensive and long-term traffic safety measures, and use this outline as a basis for the vigorous promotion of a variety of measures.

In this regard, and in accordance with the provisions of Article 22, Paragraph 1 of the Basic Act on Traffic Safety Measures, this program sets forth the general outline of the traffic safety measures to be taken during the five years from FY 2021 to FY 2025.

Under this program, the relevant government agencies and local authorities shall, taking into account the traffic situation and local circumstances, establish specific measures for traffic safety and implement them thoroughly.

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# Basic Principles of the Plan

Taking a traffic safety concept of prioritizing people as a basis, Traffic Safety Basic Plans have been drawn up every 10 years over the last 50 years, and have been successful in reducing the number of fatalities caused by road traffic accidents to about one-sixth of their historical peak.

On the other hand, people still become new victims of traffic accidents every day. In recent years, there has been an ongoing problem of traffic accidents involving children, including preschoolers, and of traffic accidents caused by elderly drivers. Amid strong calls for a society that provides support for child-rearing alongside appropriate measures to deal with the progress of demographic aging, there is now an even greater need for traffic safety initiatives that meet the needs of the times. In addition to reinforcing the various measures that have been implemented so far, it is necessary to work on measures for the new era that actively incorporate advanced technologies that contribute to securing traffic safety, which ultimately leads to traffic accidents. By doing so, we ultimately aim to take major strides towards a world-leading traffic-safety oriented society without traffic accidents.

## **[Achieving a Society with No Traffic Accidents]**

Japan has entered a long-term process of population decline, with one of the highest rates of aging in the world. In order to overcome these changes and build a truly prosperous and vibrant society, it is extremely important to realize, as a precondition, a society where people can live and move around safely and securely, something that all citizens desire.

To this end, various measures such as crime prevention, disaster prevention, and countermeasures against COVID-19 are needed, and considering the fact that many people still fall victim to traffic accidents every year, securing traffic safety, including on public transportation, is also an important factor in realizing a safe and secure society.

Although the number of fatalities due to road traffic accidents steadily decreased falling below 3,000 for the first time in 2020, we were unable to meet the targets of the 10th Plan. The number of railway accidents has been on a long-term downward trend, and has been steadily decreasing during the period of the 10th Plan, but if a train collision or derailment does occur, this may lead to a large number of casualties. As for maritime transportation, although the number of vessels involved in ship accidents has been on a downward trend in recent years, the percentage of accidents involving small vessels is high. In recent years, aviation accidents involving large aircraft have been limited to a few cases per year, caused mainly by weather-related factors such as turbulence, and small aircraft have accounted for the majority of accidents.

On the principle of respect for human life, and taking into account the huge social and economic losses that traffic accidents cause, we should reaffirm our commitment to ultimately achieve a society without traffic accidents. Needless to say, a society without traffic accidents cannot be achieved overnight, but now, half a century after the enactment of the Basic Act on Traffic Safety Measures, we must once again remember the existence of victims of traffic accidents and, in line with our pledge not to allow traffic accidents to occur, take further steps toward the eradication of such tragedies.

## **[Traffic Safety Concept of Prioritizing People]**

With respect to road traffic, it is necessary to further secure the safety of pedestrians and others who are in a weaker position relative to automobiles, and with respect to all traffic, to further secure the safety of the elderly, those with disabilities, children, and other vulnerable transportation users. A society free from traffic accidents is also a society in which vulnerable transportation users can become socially independent. In addition, people who unexpectedly



fall victim of traffic accidents require support that is tailored to their individual circumstances. We will take this “prioritizing people” approach to traffic safety as a basis for all kinds of traffic measures.

### **[Building a Society that Enables Safe Movement even as the Population Ages]**

Regarding road traffic, there are pressing issues posed by both accidents caused by elderly drivers and traffic accidents involving elderly pedestrians. In addition, it is necessary to face the issues that arise with the aging of drivers of commercial vehicles. In the maritime sector as well, there is a notable aging of the crew on domestic vessels. The challenge is to enable the elderly to live independent daily lives in the community without relying on automobiles.

In all areas of transportation, it is essential to confront and solve the various traffic safety issues that may arise as the population ages.

In Japan, the aging of society is progressing ahead of other countries in the world. As such, through cooperation among people involved in land, sea, and air transportation, we aim to build a society in which people can move around safely even when they are old, lead fulfilling lives where they can enjoy moving around with peace of mind, and to achieve a “cohesive society” in which people can live safely and with peace of mind regardless of their age or disability. We hope that in this respect, Japan can serve as a model for other countries in the world, including Asian countries where aging of the population is progressing.

#### **1. Three Components Forming the Traffic Society**

From this perspective, this plan sets numerical targets to be met within the plan period for each of the following types of traffic: (1) road traffic, (2) railway traffic, (3) traffic at Railway Crossings, (4) maritime traffic, and (5) air traffic, as well as specifying the measures to be taken to achieve them.

Specifically, we will improve policy evaluations and the scientific investigation and analysis of accidents, draw up measures that set outcome targets to the extent possible, and implement them vigorously with the understanding and cooperation of the public. This will be done while taking into consideration the interrelationships between the following three elements: (1) the human beings that make up the traffic society, (2) transportation such as vehicles, ships, and aircraft, and (3) the traffic environment as a place where they operate.

##### **(1) Safety Measures for People**

In order to ensure safe operation of transportation infrastructure, we will improve the knowledge and skills of people who operate transportation infrastructure, promote thorough awareness of traffic safety, tighten qualification systems, enhance guidance and oversight, improve supervision of driving and craft operation, and ensure appropriate working conditions. In addition, in order to ensure the safe movement of pedestrians and others, we shall promote thorough awareness of traffic safety among these groups and implement stronger guidance. In addition, since it is extremely important for each member of the public who participates in the traffic society to develop a positive awareness of the need to make it safe and secure, we will further enhance educational, publicity and awareness-raising activities relating to traffic safety. In this respect, increasing opportunities for the public to hear directly from the victims of traffic accidents would be effective in raising safety awareness. Furthermore, in order to raise awareness among the public themselves, we must build frameworks that encourage residents to be actively involved in the formation of a safe and secure traffic society by recognizing local issues, setting their own specific goals and policies, and being directly involved in various activities related to traffic safety in their local communities and organizations. Moreover, local authorities must also come up with ideas for such systems in accordance with their own circumstances. For this reason, when creating Prefectural Traffic Safety Plans and Municipal Traffic Safety Plans, it is necessary not only to refer to Traffic Safety Basic Plan, but to take the characteristics of the traffic and social situation in each local area into account and to reflect the wishes of residents.

(2) **Safety Measures for Transportation Systems**

Based on the premise that human beings make errors, measures shall be taken to prevent such errors from leading to accidents, such as by using new technologies and constant technological development to improving the safety of structures, facilities, equipment, etc. Measures shall also be taken to maintain a high level of safety at all times, taking into account the social functions and characteristics of each transportation system, and the structures that enable necessary inspections to be carried out shall be strengthened.

(3) **Safety Measures for the Traffic Environment**

Measures shall be taken to develop a road network with differentiated functions, develop traffic safety facilities, improve traffic control systems, promote effective traffic control, improve traffic information provision, and address the deterioration of infrastructure through age. In addition, in developing the traffic environment, we will take a people-first approach to strengthen measures aimed at eliminating collisions caused by mixed traffic. This will include separating areas for human movement from that for automobiles, railways, and other transportation systems. With road traffic in particular, it is important to further pursue traffic safety measures that put people first, such as the active provision of sidewalks on school routes, community roads, and main roads in urban areas.

In implementing these measures, appropriate consideration shall be given to changes in social conditions, such as demographic aging and internationalization, as well as to the perspective of resilience against disasters such as earthquakes and tsunamis.

2. **Matters Requiring Special Attention over the Next Five Years (the Duration of the Plan)**

(1) **Responding to Labor Shortages**

In the midst of labor shortages in a wide range of fields and occupations related to transportation, as well as the progress of automation and labor-saving measures, it is necessary to ensure the quality of personnel and provide thorough safety education to ensure that safety is not compromised.

(2) **Responding to the Introduction of Advanced Technology**

In the area of road traffic, advanced safety technologies such as collision damage mitigation brakes have become widespread, and are contributing to reducing accidents. In addition, efforts are being made to automate various aspects of land, maritime, and air transportation, including operation, maintenance, and inspection.

The introduction of advanced technology is expected to prevent human error and contribute to solving labor shortages, but it is important to foster social acceptance of such on the premise of ensuring safety.

In addition to this, the emergence of new types of mobility also needs to be further discussed from a safety perspective.

(3) **Transportation and Increasing Demands for Safety**

Even in the midst of increasing demands for safety in such respects as infectious diseases, natural disasters, and public security, it is important to ensure traffic safety, and to this end, to have more flexible cooperation among various specialized fields as well as the relevant ministries and agencies involved.

(4) **Monitoring the Impact of COVID-19**

The direct and indirect effects of COVID-19 extend to land, sea, and air transportation, giving rise to various challenges and restrictions, as well as affecting the lifestyles and transportation habits of the public. COVID-19's impact on traffic accidents and accident prevention measures will be closely monitored throughout the duration of this plan, and necessary measures will be initiated as appropriate.

### 3. Matters of Cross-Sector Importance

#### (1) Active Implementation of Advanced Technology

In order to further deter traffic accidents and realize a society without traffic accidents in all fields of transportation, we must promote and implement all advanced technology and information that contributes to securing traffic safety and actively engage in the research and development of new technologies.

In addition, with a view to realizing Society 5.0\* in the future, it is also important to transform people's behavior, including that of elderly, so that they can make active use of ICT\* and contribute more to traffic safety. In pursuing automation, it is necessary for society as a whole to create solutions that will improve overall safety.

In addition, as a basis for effective and appropriate traffic safety measures, we shall enhance and strengthen the comprehensive investigation and analysis of the causes of traffic accidents and promote the research and development that this requires.

#### (2) Enhancement of Rescue and Emergency Activities and Victim Assistance

In order to save the lives of the injured when traffic accidents occur and to minimize the damage caused, it is important to provide prompt rescue and emergency operations and to improve the treatment of the injured. In addition, taking the Basic Act on Crime Victims (Act No. 161 of 2004) as a basis, we will further enhance support for traffic accident victims in the field of traffic safety.

#### (3) Promotion of Participation and Collaborative Traffic Safety activities

In order to prevent traffic accidents, it is important for the national government, local authorities, local private organizations, etc., to implement measures in close cooperation, with each taking on their own responsibilities, and to actively promote traffic safety measures undertaken by the public. Therefore, we will promote participatory and collaborative traffic safety activities using systems that allow the public to participate in traffic safety measures implemented by the national government and local authorities from the planning stage, comprehensive traffic safety inspections conducted by members of the public on their own initiative, and initiatives that are tailored to the characteristics of each local community.

#### (4) Enhancing and Strengthening Independent Safety Control by Top Management

In order to further secure the safety of public transportation, which supports the daily lives of the public and would cause serious damage in the event of an accident, safety audits will be enhanced and expanded. Meanwhile, the government will also enhance and expand the assessment of transportation safety management, in which operators work together to build and improve safety management systems and the government checks on their implementation. In addition, using the evaluation of transportation safety management to raise awareness of disaster prevention among operators and enhance preemptive measures, will lead to stronger initiatives for disaster management and the implementation of safety measures that take into account the effect of infectious diseases.

#### (5) Promoting EBPM\*

In order to reinforce EBPM efforts relating to traffic safety measures, we will strive to develop and improve the data that forms the basis of said measures, collect data from various perspectives, verify the effects of each measure, and then work toward more effective measures.

#### (6) Sharing of Expertise

During the half century after the enactment of the Basic Act on Traffic Safety Measures, the various measures positioned in Traffic Safety Basic Plans and the efforts of the parties

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\* Society5.0: A human-centered society that achieves both economic development and solutions to social issues using systems that integrate cyber space (virtual space) and physical space (real space) at a high level.

\* ICT: Information and Communications Technology

\* EBPM: Evidence-based Policy Making

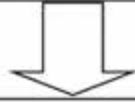
involved have led to great reductions in traffic accidents. However, although accidents at railways, Railway Crossings, sea and air have been decreasing, worldwide, more than 1.35 million people die in road traffic accidents each year. In order to reduce the number of traffic accidents, it is important for Japan and other countries to share their expertise and put it to use, as well as to promote international collaboration and cooperation.

# **Part 1 Land Traffic Safety**

## **Chapter 1 Road Traffic Safety**

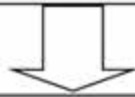
### 1. Achieving a Society with No Traffic Accidents

- Following the principle of respect for human life, our ultimate aim is to achieve a society with no traffic accidents.



### 2. Objectives Set for Road Traffic Safety

- (1) Aiming to realize “the world's safest road traffic,” the number of fatalities within 24 hours is to be reduced to 2,000 people\* or less by the year 2025.  
(\* Multiplying this 2,000 by the average ratio of the number of fatalities within 24 hours to the number of fatalities within 30 days between 2016 and 2019 (1.20) gives 2,400.)
- (2) The number of serious injuries is to be reduced to 22,000 people or less by 2025.



### 3. Measures for Road Traffic Safety

#### <6 perspectives>

- (1) Securing the traffic safety of the elderly and children
- (2) Securing the safety of pedestrians and bicycle users and improving their awareness of compliance with the law
- (3) Securing the safety on community roads
- (4) Promoting the use of advanced technologies
- (5) Promoting detailed measures based on actual traffic conditions
- (6) Promoting traffic safety measures in which the community is united



#### <8 Key Areas>

- |   |   |
|---|---|
| (1) Improving the road traffic environment                            | (5) Maintaining road traffic order  |
| (2) Comprehensively implementing traffic safety awareness initiatives | (6) Enhancing rescue and emergency services systems                         |
| (3) Securing safe driving   | (7) Promoting victim support, including the appropriate compensation system |
| (4) Ensuring vehicle safety   | (8) Enhancing R&D and study activities                                      |

## **Section 1 Achieving a Society with No Traffic Accidents (Basic Approach)**

### **1. Achieving a Society with No Traffic Accidents**

Following the principle of respect for human life, our ultimate aim is to achieve a society with no traffic accidents.

In recent years, there has been an ongoing problem of traffic accidents involving children, including preschoolers, and of traffic accidents caused by elderly drivers. Amid strong calls for a society that provides support for child-rearing alongside appropriate measures to deal with the progress of demographic aging, there is now an even greater need for traffic safety initiatives that meet the needs of the times.

It is necessary for the entire government to take more active steps toward the ultimate aim of a society free of road traffic accidents, reducing to close to zero the number of fatalities and the number of people suffering serious injuries that are life-threatening or of high priority.\*

In promoting traffic safety measures, and considering that economic losses due to road traffic accidents amount to at least 14.357 trillion yen per year (approximately 2.8% of GDP), it is necessary for all citizens participating in the traffic society to keep traffic safety in mind and to further enhance said measures.

In particular, since traffic safety is something closely linked with local communities, it is important to intensify initiatives in every community while taking the local traffic conditions into account. This will be effective if the government, schools, households, workplaces, organizations, and companies build stronger partnerships while sharing roles and responsibilities, and if residents participate and collaborate in the planning, execution, and evaluation of traffic safety initiatives in a variety of ways.

### **2. Securing Pedestrian Safety**

In particular, pedestrians account for a higher percentage of traffic fatalities in Japan than in Europe and North America, and it is important to secure the safety of pedestrians by improving sidewalks, etc., based on a people-first approach to traffic safety.

### **3. Implementing Measures based on Local Conditions**

Although a variety of traffic safety measures are available, each prefecture, municipality, etc. should take the initiative in selecting the most effective combination of measures for their local area, taking into account the actual conditions there. In particular, although it is effective for traffic safety measures on community roads to be implemented in the context of comprehensive urban planning, the role of municipalities and police stations, which are the places most accessible to residents, is extremely important in promoting traffic safety measures from this kind of urban planning perspective.

Moreover, in the process of promoting community efforts, it is also an effective way to regard traffic safety as a key factor to achieve community safety, in addition to crime prevention and disaster prevention.

### **4. Division of Roles and Building Stronger Partnerships**

In addition to the government, it will be effective if schools, households, workplaces, organizations, and companies build stronger partnerships while sharing roles and responsibilities, and if residents actively participate and collaborate in the planning, execution, and evaluation of traffic safety initiatives in a variety of ways.

### **5. Participation and Cooperation from Traffic Accident Victims, etc.**

Given that traffic accident victims have experienced and understand firsthand the tragedy of traffic accidents, including injuries and the loss of family members, their participation and

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\* Seriously injured: A person who has suffered injuries in a traffic accident and needs medical treatment for one month (30 days) or more.

cooperation is essential.

**Reference Economic Losses due to Road Traffic Accidents**

According to the Cabinet Office’s “Investigative Study on Economic Analyses of Damages and Losses caused by Traffic Accidents” (March 2017), the economic losses caused by road traffic accidents was estimated at 14.357 trillion yen.

This annual figure for losses caused by road traffic accidents comprises monetary and non-monetary losses. The former includes human losses such as medical expenses, compensation fees, lost earnings, property losses such as repair costs for vehicles and structures, and also emergency transport costs related to traffic accidents, police accident handling costs, court costs, insurance operating costs, and losses arising from traffic congestion. The latter includes pain, suffering, and loss of enjoyment of life, which are considered to be losses caused by traffic accidents, the calculation of which is based on death and injury losses.

<Economic Losses due to Traffic Accidents>

	Losses (billions yen)
<b>Monetary losses</b>	
Human losses	1,274
Property losses	1,796
Losses incurred by businesses	115
Losses incurred by public institutions, etc.	815
<b>Non-monetary losses</b>	
Death and injury losses	10,358
<b>Total</b>	<b>14,357</b>

(Note) The calculations in this investigative study are based on data as of FY 2014. The calculation of “death losses” uses the number of fatalities due to traffic accidents in 2014 (5,589) in the Health and Welfare Statistics, and the calculation of “injury losses” uses the number of injured estimated from insurance and mutual aid related statistics for 2014.



## Section 2 Objectives Set for Road Traffic Safety

### I Current Situation and Future Outlook regarding Road Traffic Accidents

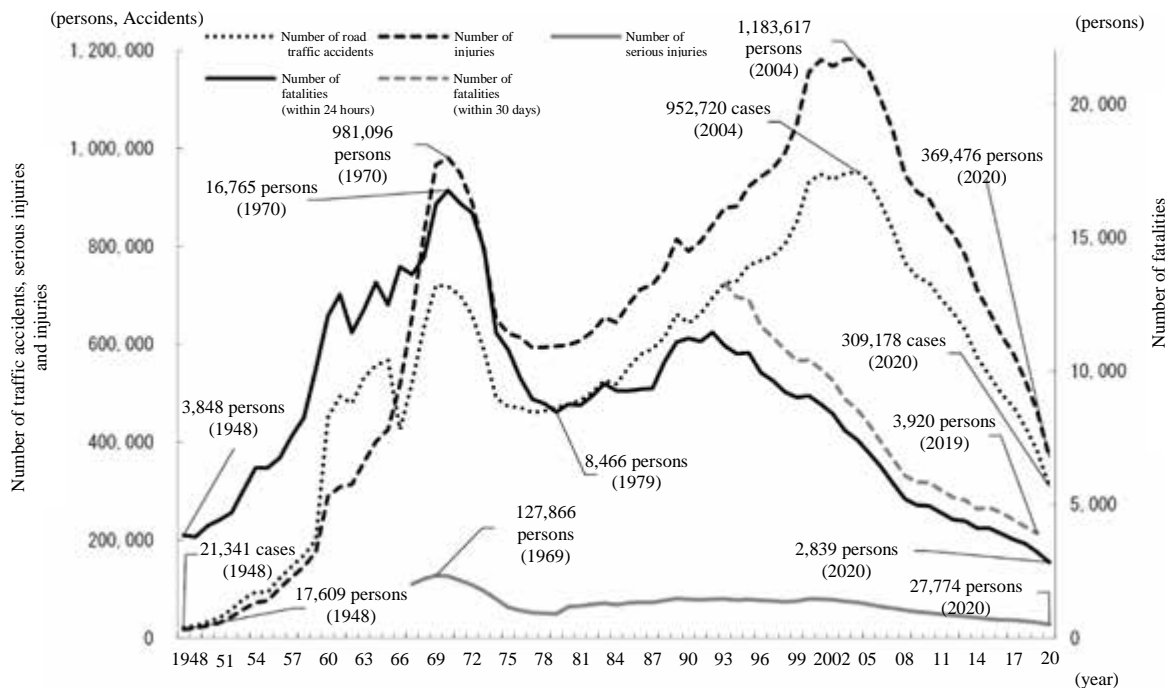
#### 1 The Current Situation regarding Road Traffic Accidents

Although the annual number of traffic accident 24-hour fatalities in Japan was 16,765 in 1970, it started to steadily decrease in the next year, dropping by almost half to 8,466 in 1979. This then began to trend upward, reaching 11,452 in 1992, but started to decrease again the following year, reaching 8,396 in 2002, about half the figure for 1970. Furthermore, the number of fatalities in 2009 was 4,979, the first time in 57 years since 1952 that this figure had fallen below 5,000, and in 2016 it was 3,904, below 4,000 and less than a quarter of the peak number (16,765 in 1970).

In 2020, the final year of the 10th Plan, the number of fatalities was 2,839, falling below 3,000 for the first time, about one-sixth of the peak number. Unfortunately, however, the goal of reducing the number of deaths occurring within 24 hours after an accident to 2,500 or less by 2020 was not achieved.

In recent years, the number of fatalities and injuries and the number of traffic accidents have continued to decrease from their peak in 2004, with 464,990 fatalities and injuries in 2019 and 372,315 in 2020, achieving the targets of the 10th Plan for two consecutive years.

Trends in the number of road traffic accidents, fatalities, injuries and serious injuries by road traffic accidents.



Notes:

- 1 Source: National Police Agency
- 2 "Number of deaths (24 hours)" refers to the number of people who died as a result of a traffic accident within 24 hours of it occurring.
- 3 "Number of deaths (30 days)" refers to the number of people who died as a result of a traffic accident within 30 days of it occurring (counting the day of the accident as the first day).
- 4 From 1966 onwards, the figures for the number of traffic accidents do not include property damage accidents.
- 5 The figures for number of deaths (24 hours), the number of injured, the number of seriously injured, and the number of traffic accidents do not include Okinawa Prefecture before 1971.

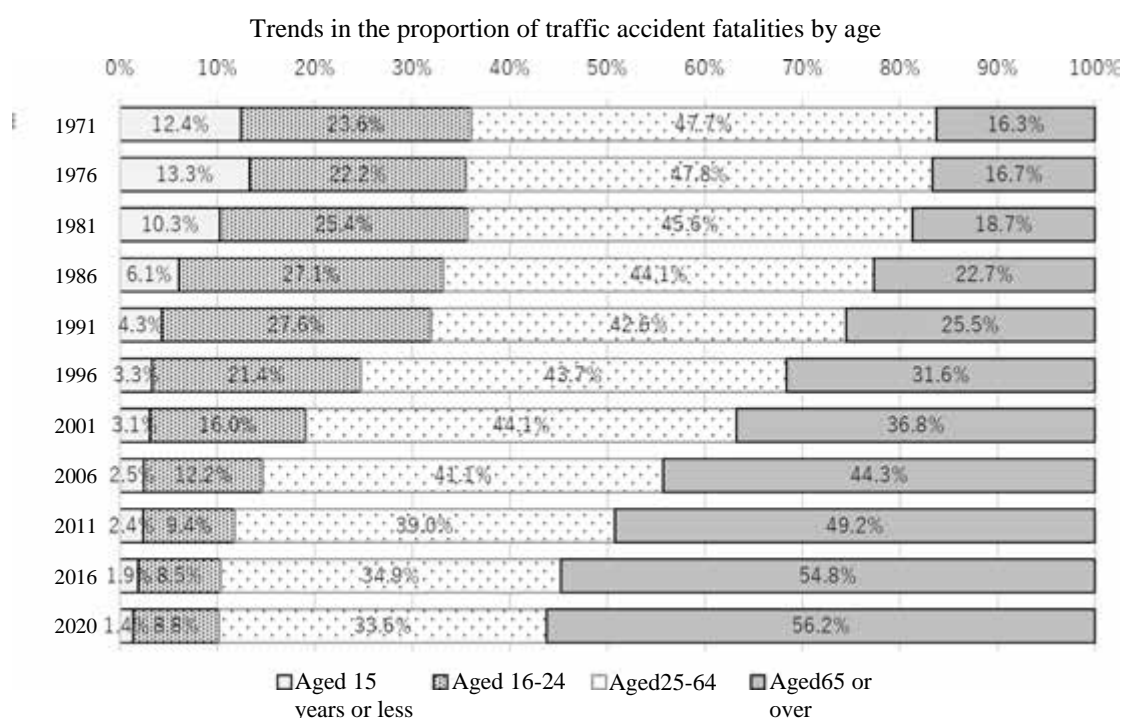
[Reference] Target values and actual results of the Traffic Safety Basic Plans to date

1st Traffic Safety Basic Plan (FY 1971–1975) Target: Halve the estimated number of pedestrian fatalities (approx. 8,000) Actual figure: 3,732 people in 1975
2nd Traffic Safety Basic Plan (FY 1976–1980) Target: Halve the number of fatalities (16,765)      Actual figure: 8,760 people in 1980
3rd Traffic Safety Basic Plan (FY 1981–1985) Target: 8,000 or fewer fatalities      Actual figure: 9,261 people in 1985
4th Traffic Safety Basic Plan (FY 1986–1990) Target: 8,000 or fewer fatalities      Actual figure: 11,227 people in 1990
5th Traffic Safety Basic Plan (FY 1991–1995) Target: 10,000 or fewer fatalities      Actual figure: 10,684 people in 1995
6th Traffic Safety Basic Plan (FY 1996–2000) Target: 10,000 or fewer fatalities by 1997, 9,000 or fewer by 2000 Actual figures: 9,642 in 1997, 9,073 in 2000
7th Traffic Safety Basic Plan (FY 2001–2005) Target: 8,466 or fewer fatalities      Actual figure: 6,937 people in 2005
8th Traffic Safety Basic Plan (FY 2006–2010) Target:      5,500 or fewer fatalities      Actual figure: 4,948 people in 2010 1 million or fewer casualties      Actual figure: 901,245 people in 2010
9th Traffic Safety Basic Plan (FY 2011–2015) Target:      3,000 or fewer fatalities      Actual figure: 4,117 people in 2015 700,000 or fewer casualties      Actual figure: 670,140 people in 2015
10th Traffic Safety Basic Plan (FY 2016–2020) Target:      2,500 or fewer fatalities      Actual figure: 2,839 people in 2020 500,000 or fewer casualties      Actual figure: 372,315 people in 2020

The number of traffic accidents and the number of injured have decreased for 16 consecutive years. The number of fatalities in traffic accidents has continued to drop to the lowest levels since 1948, when the current traffic accident statistics were introduced. However, to meet the targets of the 10th Plan, it was necessary to continue to reduce the number of fatalities by 9% or more year on year for every year of the 10th Plan’s duration, and this was not achieved.

Looking at the long-term changes in the rate of traffic fatalities by age group, in 1971, the first year of the 1st Plan, the ratio of people aged 65 and over to the total number of traffic fatalities was 16.3%. Conversely, 25 years later in 1996, the first year of the 6th Plan, it was 31.6%, in 2016, the first year of the 10th Plan, it was 54.8%, and in 2020, it was 56.2%. With the aging of the population, the rate of elderly people among traffic fatalities is increasing.

Further countermeasures for the elderly will be necessary in the future. In particular, the fact that the so-called “baby boomers” will begin to reach the age of 75 in 2022 makes it even more important to secure the safety of the elderly aged 75 and over.



## **2 Future Outlook regarding Road Traffic Accidents**

The situation regarding road traffic is expected to change in a complex manner in the future in line with trends in economic and social conditions. In particular, the direct and indirect effects of COVID-19 are expected to give rise to various challenges and restrictions, and to affect the lifestyles and transportation habits of the public. It is difficult to accurately assess what the future situation regarding traffic accidents will be. However, the Cabinet Office’s “Survey on Basic Policies for Road Traffic Safety” (March 2020) made long-term projections taking into account “projections focusing on accident rates by generation” and “projections focusing on the size of the population by age group,” and the projected figures for traffic accident fatalities (within 24 hours and within 30 days) and the number of seriously injured for 2025 were as follows.

Indicator	Predicted value
Number of fatalities (within 24 hours)	2,214 – 2,578
Number of fatalities (within 30 days)	2,608 – 3,111
Number of serious injuries	23,407 – 23,727

## **II Objectives of the 11th Plan**

- (1) Aiming to realize “the world’s safest road traffic,” the number of fatalities within 24 hours is to be reduced to 2,000 people\* or less by 2025. (\* Multiplying this 2,000 by the average ratio of the number of deaths occurring within 24 hours to the number of deaths occurring within 30 days between 2016 and 2019 (1.20) gives 2,400.)
- (2) The number of serious injuries is to be reduced to 22,000 people or less by 2025.

The ultimate goal is to achieve a society free of road traffic accidents. However, considering the difficulty of achieving this goal overnight, the following targets are set for 2025, the

duration of this Plan, aiming to reduce to close to zero the number of fatalities and the number of people suffering serious injuries that are life-threatening or of high priority.

(1) Reduce the annual number of fatalities within 24 hours to 2,000 or less.

Multiplying this 2,000 by the average ratio of the number of deaths occurring within 24 hours to the number of deaths occurring within 30 days between 2016 and 2019 (1.20) gives 2,400. If the annual number of fatalities within 30 days is 2,400, the number of fatalities within 30 days per 100,000 population is 1.96. Looking at the number of fatalities within 30 days per 100,000 people in the 34 countries for which the International Road Traffic Accident Database (IRTAD) publishes data, Japan had the eighth lowest number of fatalities within 30 days, at 3.29 in 2018. If this target is achieved, Japan will become the country with the fewest traffic accidents if the situation in other countries does not change significantly from their current situations.

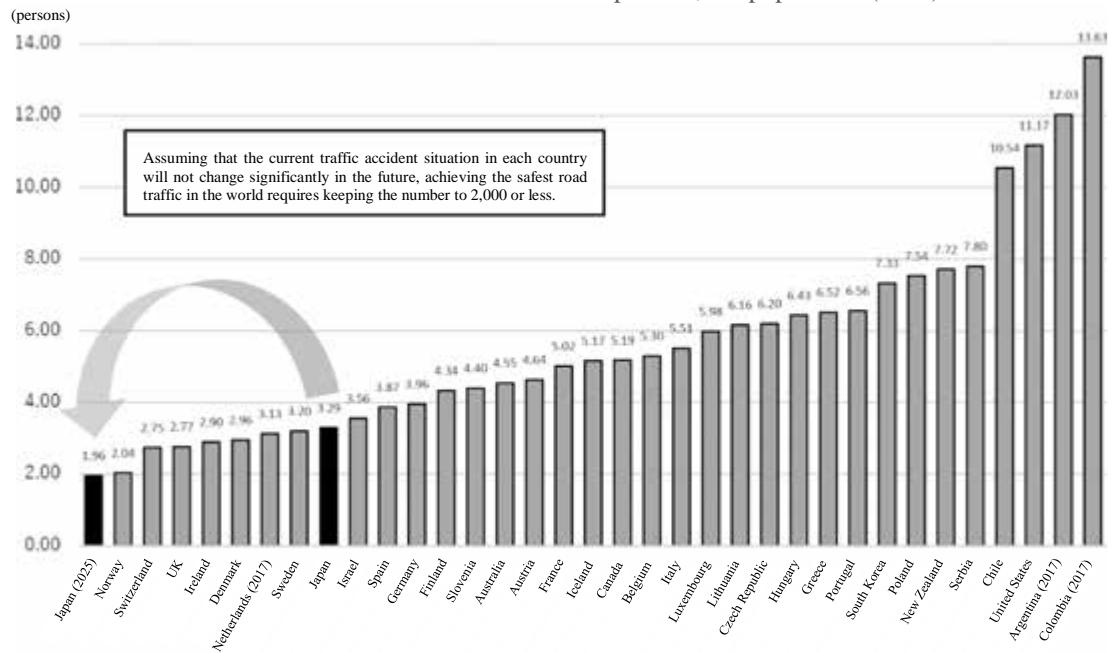
(2) Reduce the annual number of serious injuries to 22,000 or less.

The highest priority objective of this Plan is to reduce the number of fatalities, but since efforts to prevent accidents that result in serious injuries will also lead to a reduction in the number of fatalities, the Plan will set a target for the number of people suffering serious injuries that are life-threatening or of high priority. In addition, the progress of advanced technology and emergency medical services has reduced the damage caused by traffic accidents, and there are many accidents in which only serious injuries are sustained, even in cases that would have resulted in death in the past. For this reason, we have set a target value in order to further focus on reducing the number of accidents resulting in serious injuries that have a lasting impact on daily life.

Since the percentage of fatalities made up by pedestrians and cyclists is higher than that of other countries, when working to reduce the number of fatalities in traffic accidents, efforts should be made to reduce the number of fatalities among pedestrians and cyclists at a rate higher than that of the overall number of fatalities.

In order to achieve the above objectives, the relevant government agencies and local authorities shall, with the understanding and cooperation of the people, comprehensively and vigorously pursue the various measures set forth in Section 3.

The number of traffic accident fatalities per 100,000 population (2018)



Notes:

- 1 Source: IRTAD
- 2 Values given are for 2018 unless the country name has the year in parentheses.
- 3 All figures are calculated based on data on traffic accident fatalities within 30 days (people who died within 30 days of an accident).
- 4 The figures for Japan (2025) are the average of the ratio of the number of deaths within 24 hours to the number of deaths within 30 days between 2016 and 2019 (1.20) using the predicted population (122.544 million: estimated results based on the assumption of median births and median deaths from the National Institute of Population and Social Security Research "Future Estimated Population of Japan (2017 Estimate)") and taking the number of traffic accident fatalities within 24 hours of a traffic accident in 2025 to be 2,000.

## **Section 3 Measures for Road Traffic Safety**

### **I Perspectives in Considering Future Measures for Road Traffic Safety**

The number of traffic accident fatalities during 2020 decreased to 2,839 for the fifth consecutive year, even lower than the previous year's figure, which was the lowest since the current traffic accident statistics began in 1948, and also lower than 3,000 for the first time. The number of accidents and the number of injuries decreased for the 16th consecutive year.

While the number of fatalities per 100,000 population among the elderly has been decreasing year by year, in 2020, it was about twice as high as the number of fatalities per 100,000 population among all age groups, and accounted for 56.2% of all road traffic accident fatalities; both of these figures remain high.

In terms of the number of fatalities per 100,000 population by road user group, the highest numbers are seen "Pedestrian" and "Motor vehicle occupant", and in terms of the number of fatal accidents per 100,000 population by type of accident, the highest numbers are seen in "Head-on collisions, etc", "When pedestrians cross roads", and "Crossing collisions", in that order.

Therefore, while taking the existing traffic safety measures as the basis, we will flexibly respond to changes in the economic and social situation, traffic conditions, and the progress and spread of technology, etc. In addition, we will enhance the collection and analysis of information on traffic accidents that have actually occurred under these changing circumstances, make improvements to ensure more effective measures, and implement those measures expected to be effective.

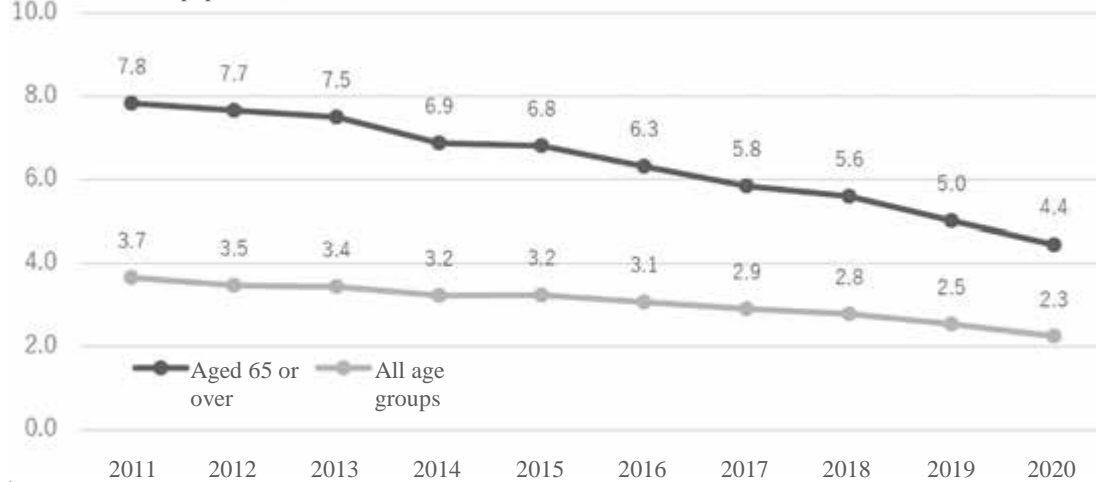
To the extent possible, EBPM will be used to implement these measures, and their effects will be assessed and improved as necessary.

In this regard, traffic safety measures will be implemented based on the following eight key areas: (1) Improving the Road Traffic Environment, (2) Comprehensively implementing traffic safety awareness initiatives, (3) Securing Safe Driving, (4) Ensuring Vehicle Safety, (5) Maintaining Road Traffic Order, (6) Enhancing Rescue and Emergency Services Systems, (7) Promoting Victim Support, including The Appropriate Compensation System, and (8) Enhancing R&D and Studies and activities.

In doing so, the following points should be emphasized for future traffic safety measures.

### Trends in the number of traffic accident fatalities per 100,000 population by age group

(Persons/100,000 population)



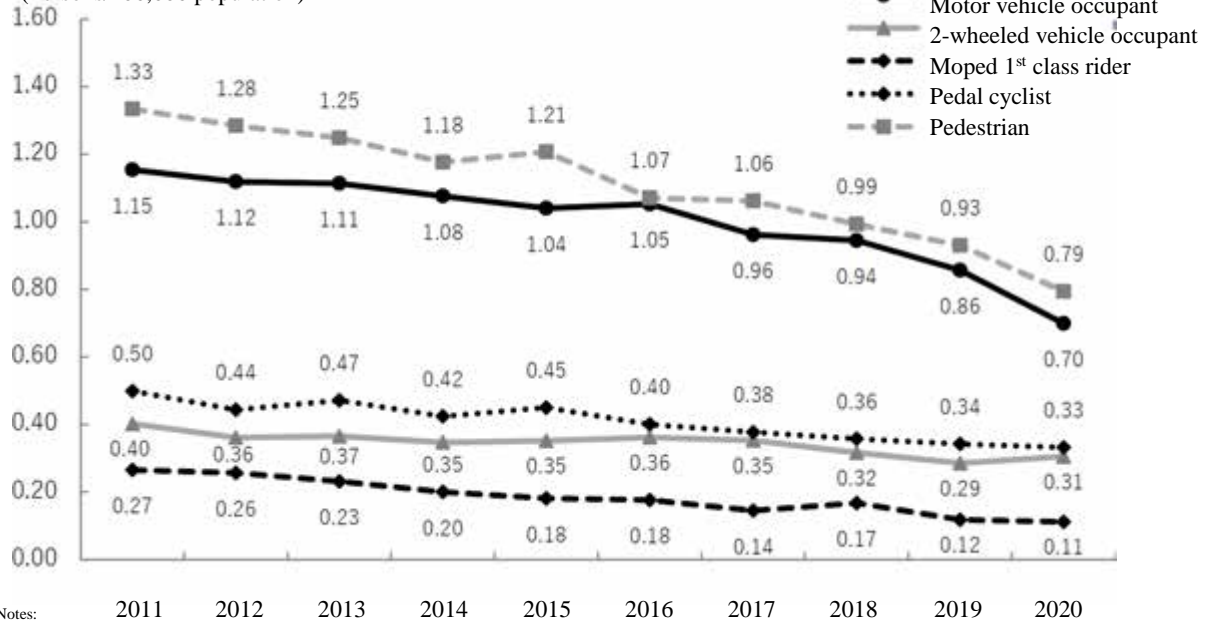
Notes:

1 Source: National Police Agency

2 The population used for the calculation is the population of the year previous to the year in question, and is based on the Population Estimates of the Ministry of Internal Affairs and Communications (population as of October 1 of each year (interpolation correction not applied. However, for census years, the population is based on the census population.))

### Trends in the number of traffic accident fatalities per 100,000 population by road user group

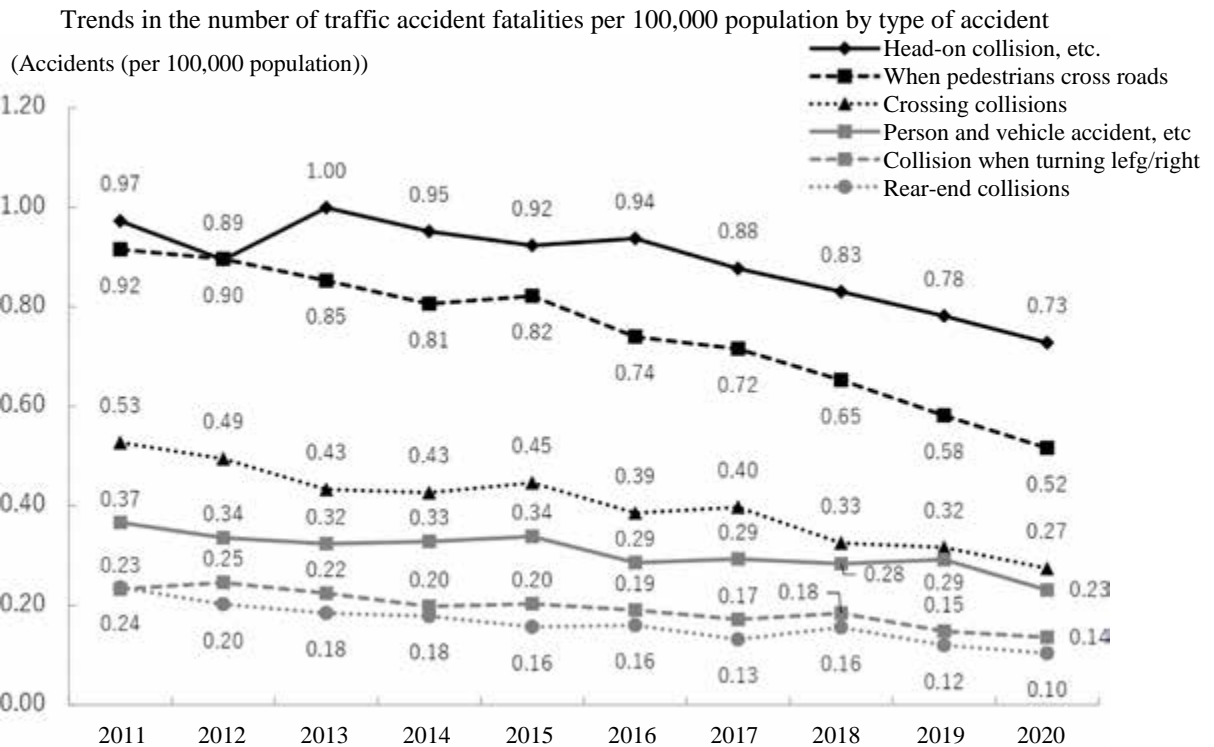
(Persons/100,000 population)



Notes:

1 Source: National Police Agency

2 The population used for the calculation is the population of the year previous to the year in question, and is based on the Population Estimates of the Ministry of Internal Affairs and Communications (population as of October 1 of each year (interpolation correction not applied. However, for census years, the population is based on the census population.))



Notes:

- 1 Source: National Police Agency However, "Other" is omitted.
- 2 "Person and vehicle accident, etc" refers to person-to-vehicle accidents other than when pedestrians are crossing the road (e.g., while passing head-on, back-on, or lying in the road).
- 3 "Head-on collision, etc." refers to head-on collisions, roadway departures, and collisions with structures.
- 4 The population used for the calculation is the population of the year previous to the year in question, and is based on the Population Estimates of the Ministry of Internal Affairs and Communications (population as of October 1 of each year (interpolation correction not applied. However, for census years, the population is based on the census population.))

**<Perspectives to be emphasized>**

**(1) Securing the safety of the elderly and children**

Pedestrians and cyclists account for a higher percentage of traffic fatalities in Japan than in Europe and North America, and about 70% of these are elderly.

With regard to the elderly, measures will be taken for those who mainly are pedestrians and use bicycles as means of transportation, and measures to support safe driving will be pursued for those who drive automobiles. Moreover, measures to support the daily lives of the elderly with mobility after they surrender their driver's licenses are not limited to the policies covered in this plan, but it is important to promote them in close coordination with these measures.

- For elderly people who are pedestrians and use bicycles as means of transportation, it will be important to improve sidewalks, take measures on community roads, provide traffic safety education and community watch activities tailored to elderly people, and take measures to ensure the safe use of various types of mobility, as well as making use of automated driving services that are appropriate for local conditions. In addition, we will create a barrier-free road traffic environment, based on the idea of designing cities and living environments so that they can be easily used by a wide range of people regardless of age.
- With regard to measures to support safe driving by the elderly, it is necessary to more actively promote the use and proliferation of technologies that compensate for the decline in their physical capabilities. In addition, accidents have occurred due to overconfidence and misunderstanding of driver assistance features. It is vital to use traffic safety education and other means to provide a wide range of information on technologies, including driver assistance features, their limitations, and the state of



technological progress.

With Japan's declining number of children becoming increasingly serious, it is essential that we develop an environment where parents can give birth to and raise their children with peace of mind, and one where it is easy to move around with young children. Although the number of traffic fatalities among children has been decreasing, from the perspective of ensuring the safety of the children who will lead the next generation, we will actively promote the installation and proper management of crosswalks, sidewalks, and other safe and secure walking spaces on routes where children, particularly preschoolers, move in groups on a daily basis, and on school routes. In addition, as the number of households that leave their children at day-care centers while working is increasing, it is necessary to further develop efforts to look after children at day-care centers and in the community.

In addition, measures such as traffic safety education for the elderly and children will be taken as appropriate to the local traffic situation.

The Act for Partial Revision of the Road Traffic Act (Act No. 42 of 2020), which provides countermeasures for elderly drivers, is scheduled to come into effect by June 2022. As such, we must make preparations to ensure that it is properly and smoothly enforced, and to redouble our efforts after its enforcement.

## **(2) Securing the safety of pedestrians and cyclists and raising awareness of compliance with the law**

While the number of fatalities among pedestrians has been steadily decreasing, it remains the situation in which most fatalities occur, and there is still no thorough adherence to pedestrian priority, such as cars not stopping at crosswalks. It is essential to ensure the safety of pedestrians, especially on roads that are often used by the elderly and children.

In accordance with a "people-first" approach, we will implement measures to ensure pedestrian safety, working actively to ensure safe and secure walking spaces. This will include installation and proper management of crosswalks and sidewalks on routes where children, particularly preschoolers, move in groups on a daily basis, school routes, community roads, and main roads in urban areas.

In addition, in order to reduce the number of traffic accidents involving pedestrians crossing the street, we will work to improve drivers' awareness of compliance with the law by reminding them of the traffic rules regarding crosswalks and ensuring that pedestrians have priority.

Conversely, pedestrians should be informed of traffic rules such as crossing at crosswalks and obeying traffic lights, and traffic safety education will be conducted to encourage pedestrians to take actions to protect their own safety, such as checking before crossing and being aware of their surroundings.

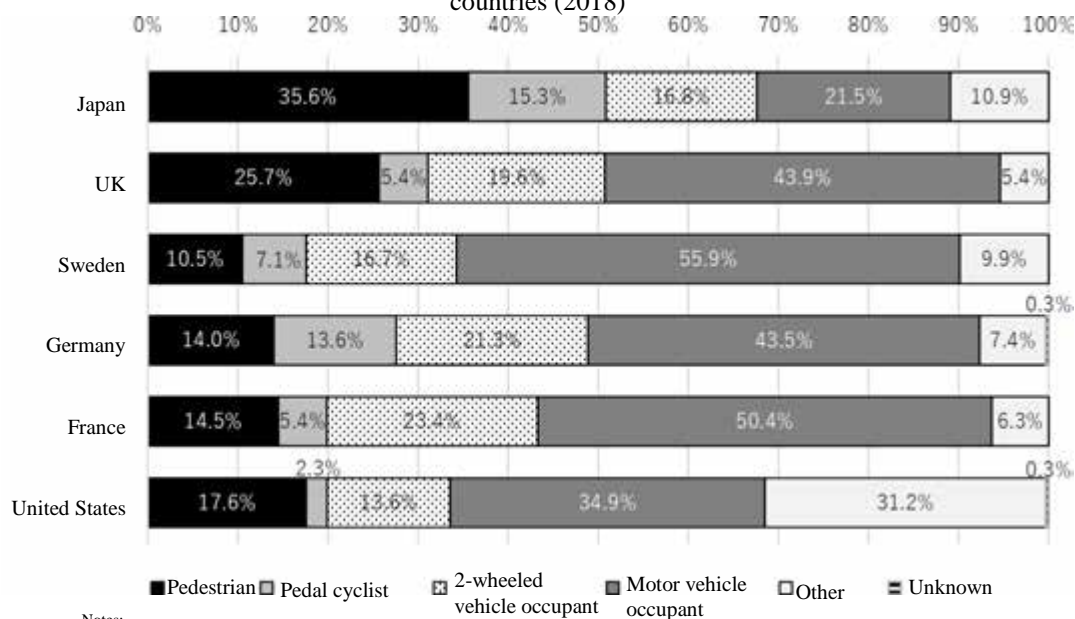
Secondly, while bicycles can be the injured party in the event of a collision with a car, they can also be the injuring party in the event of a collision with a pedestrian, etc. Therefore, measures such as encouraging all age groups to wear helmets, and maintaining bicycles, and promoting the purchase of liability insurance for damages will be pursued. In order to promote the safe use of bicycles, it is necessary to actively secure safe and comfortable bicycle traffic space where pedestrians, bicycles and automobiles are appropriately separated, such as by reviewing the width of lanes and sidewalks, etc. In particular, in promoting the provision of bicycle traffic space in urban areas, consideration should be given to urban development and other perspectives, including the nature of bicycle traffic and how the space is shared between various modes of transportation.

At the same time, we will pursue the provision of bicycle parking lots as a measure against abandoned bicycles that hinder traffic safety, such as in front of stations in urban areas and on sidewalks in downtown areas.

Furthermore, since many cyclists violate the rules and manners due to an inadequate understanding of traffic rules for bicycles, we will enhance traffic safety education and actively promote awareness-raising activities on the streets to raise the safety awareness of cyclists and other road users.

We will also implement measures such as education and awareness-raising on the prevention of traffic accidents caused by those who use bicycles for commuting or delivery purposes, as well as those associated with the increase prevalence of various mobility devices, such as bicycles with driving assist devices and electric wheelchairs.

Proportion of traffic accident fatalities by road user group in major North American and European countries (2018)



Notes:  
 1 Source: IRTAD  
 2 Numeric value is based on the component rate by condition

### **(3) Ensuring the safety of community roads**

We must reduce traffic accidents and ensure an environment in which all pedestrians and cyclists, including the elderly, those with disabilities, and children, can use community roads safely and with peace of mind.

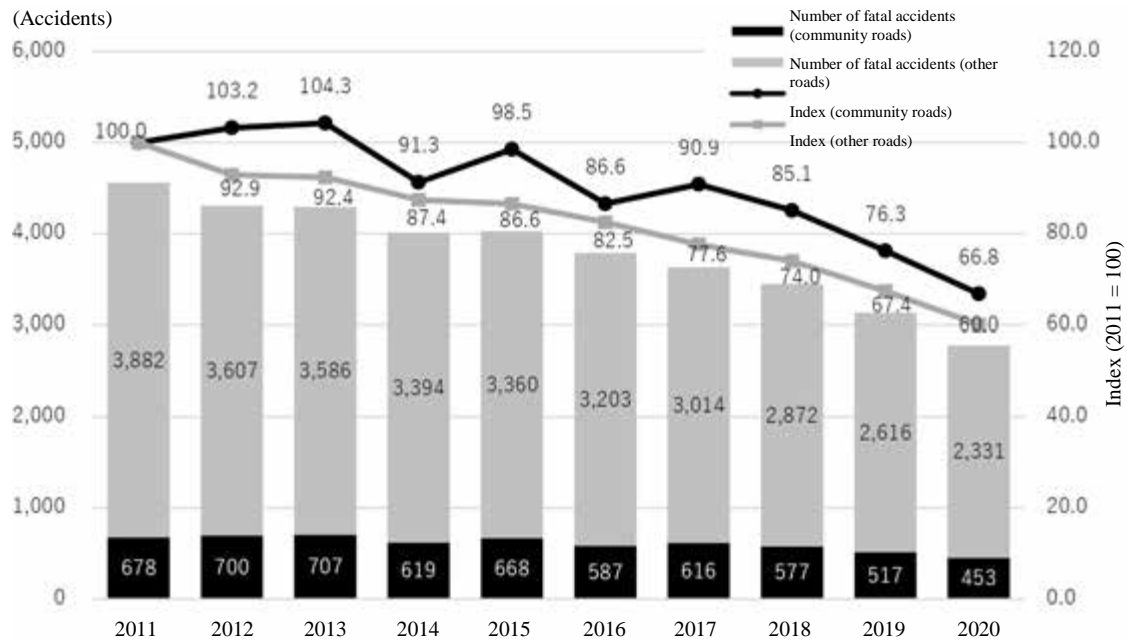
Although traffic fatalities on community roads have been decreasing in recent years, the rate of decrease is smaller than that of traffic fatalities on other types of roads, so further efforts are required.

In terms of safety measures on these roads, in addition to the progress in setting up “30 Zones,” physical devices such as road humps have reached the stage of widespread use. In addition to promoting the improvement of the road traffic environment to curb the speed of vehicles, it is also necessary to continue to implement appropriate traffic supervision on community roads, promote safe driving methods on these roads, and prevent vehicles that should be using main roads from entering, such as by promoting the development of portable automatic speed violation control devices.

In implementing various measures on community roads, it is important to have consistent involvement of local residents from the initial stages of the measures, and attention must be paid on how to roll out the measures by, for example, involving local experts.

By continuing these efforts, we aim to deeply instill in the public the awareness that “people have priority on community roads.”

Trends in the number of fatal traffic accidents



Note: Roads with a roadway width of less than 5.5 m are counted as community roads.

#### **(4) Promoting the use of advanced technology**

Traffic accidents are on the decline due to the use of advanced technologies such as collision damage reduction brakes. In addition to the spread of Safety Support Cars (“Supocar” and “Supocar S”) it is expected that the number of traffic accidents will be further reduced through the use of advanced technology. This will include the further development and proliferation of systems that support safe driving by preventing accidents caused by drivers’ delayed recognition of danger or driving errors, inter-vehicle communication, the practical application of Level 3 or higher automated driving, and infrastructure support for automated vehicles. To this end, while paying attention to international discussions and the progress of technologies related to automated driving, we will look into traffic rules and safety measures to enable the practical application of automated driving, premised on ensuring safety and taking trends in technological development into account.

In terms of technological development, we will promote the introduction of systems based on new technology, not only in the field of vehicles, but also, for example, systems that can quickly provide rescue and emergency services in the event of a traffic accident. In addition, with the aging of society and the falling number of children, the shortage of professional drivers is becoming more serious; the use of advanced technology will help to solve this shortage and ensure safety.

#### **(5) Promoting fine-tuned measures based on actual traffic conditions, etc.**

Throughout the 10th Plan, efforts were made to analyze the big data obtained from ETC2.0\* based on detailed information such as the area, location, and type of accidents,

\* ETC2.0: Compared to conventional ETC (Electronic Toll Collection System: a system that communicates

thereby effectively implementing more finely-tuned measures for accidents that were difficult to prevent using conventional measures. In the future, we will face the challenge of making more extensive use of big data and the knowledge of experts.

For example, we must use analysis systems and micro-analysis of big data obtained from ETC2.0 to ascertain various risk factors for road traffic accidents, and to use this as a basis for developing specific countermeasures.

#### **(6) Promoting traffic safety measures that communities are united behind**

Amidst the urgent need for each region to take concrete measures to realize a safe and secure traffic society, taking into account the needs of the local community and changes in traffic conditions due to the further aging of the population, it is even more important to address traffic safety issues that are rooted in the local community through the cooperation of the government, related organizations, and residents of each prefecture, municipality, etc.

For this reason, further efforts will be made to provide information on traffic accidents through the internet and other media, with the aim of applying the knowledge of experts familiar with the local conditions, and raising local residents' interest in traffic safety measures, and implementing measures tailored to the characteristics of that area's traffic accidents, such as their location and type.

In addition, not only do local governments have limited resources to devote to the variety of traffic safety issues they face, but the personnel who support traffic safety activities in the community, such as traffic volunteers, are aging. Therefore, we will encourage local residents, including young people, to develop a deeper interest in traffic safety measures as issues relevant to them, and to actively participate in traffic safety activities aimed at creating a safe and secure traffic society in the area.

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wirelessly with an on-board device in a car or motorcycle at expressway/toll road gates, identifying the vehicle type and route section for authentication and payment.), ETC2.0 has significantly improved functions such as (1) the ability to send and receive a large amount of information, and (2) the ability to ascertain not only interchange entry/exit information but also route information. This system brings various advantages not only to road users, but also to road policy, making a substantial contribution to the implementation of Intelligent Transportation Systems (ITS).

## **II Measures to Be Taken**

### **1 Improving the road traffic environment**

The National Police Agency, the Ministry of Land, Infrastructure, Transport and Tourism, and other relevant organizations have been working together to improve the road traffic environment, pursuing measures for both main roads and community roads.

However, since pedestrians and cyclists account for a higher percentage of traffic fatalities in Japan than in other countries, we must promote further safety measures on community roads used by many pedestrians and bicycles. For this reason, when developing the road traffic environment in the future, we will promote the functional differentiation between main roads that carry automobile traffic and pedestrian-centered community roads, and work to improve the safety of community roads for everyday use.

In addition, given the continued aging of society and the falling number of children, we will redouble our efforts to develop a people-first road traffic environment that provides safe and secure walking space, focusing on protecting children from accidents and creating a traffic society in which the elderly and those with disabilities can go out safely and with peace of mind.

In addition, we will also pursue comprehensive TDM\* (Transportation Demand Management) measures in order to promote traffic safety by ensuring smoother road traffic. This involves seeking new ways to use roads, improving transportation efficiency, and equalizing traffic volume across time and space. At the same time, we will promote the development and proliferation of Intelligent Transport Systems (ITS\*). These are designed to improve safety, transportation efficiency, and comfort by building systems that integrate people, roads, and vehicles with state-of-the-art ICT, and to contribute to environmental conservation by reducing traffic congestion and otherwise making traffic smoother.

#### **[Priority Measures and New Measures in the 11th Plan]**

- Development of safe and secure people-first walking space on community roads, etc. ((1))
- Promoting traffic safety measures on community roads, etc. ((1)A)
- Ensuring traffic safety on school routes, etc. ((1)B)
- Development of walking spaces that contribute to the safety of the elderly, those with disabilities, etc. ((1)C)
- Further promoting the use of expressways to differentiate their functions from those of community roads ((2))
- Promoting traffic safety measures on expressways ((3))
- Implementation of a zero-accident plan (strategy emphasizing elimination of accident-prone areas) ((3)A)
- Creating a safe and comfortable road traffic environment using ITS ((4)E)
- Securing and improving transportation for the elderly, etc. ((5))
- Promoting of the elimination of utility poles ((7))
- Comprehensive development of the bicycle use environment ((9))
- Utilization of ITS ((10))
- Developing a disaster-resistant road traffic environment ((12))
- Promoting comprehensive parking measures ((13))
- Enhancing provision of road traffic information ((14))

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\* TDM: Transportation Demand Management

\* ITS: Intelligent Transport Systems

**(1) Development of safe and secure, prioritizing humans, pedestrian space in community roads**

The traffic safety measures that have achieved certain results so far focus mainly on cars, while road development and traffic safety measures from a pedestrian perspective are still not sufficient, with problems such as the inflow of through traffic into community roads remaining serious.

It is therefore necessary, with the cooperation of local communities, to pursue traffic safety measures from the perspective of people, such as the active provision of sidewalks along school routes, community roads, and main roads in urban areas, etc. On roads where it is particularly necessary to ensure traffic safety, finely-tuned accident prevention measures, such as the provision of sidewalks and other traffic safety facilities and the promotion of effective traffic control, will be implemented to control vehicle speeds and create a safe road traffic environment where different types of traffic such as automobiles, bicycles, and pedestrians are kept separate.

**A Promoting traffic safety measures on community roads**

In areas where many traffic accidents occur, which have been identified based on scientific data and the expressed needs of the local community, the national government, local governments, and local residents will work together to implement zoning measures, such as the thorough elimination of through traffic and reductions in vehicle speed, thereby ensuring road spaces in which children and the elderly can travel with peace of mind.

Prefectural Public Safety Commissions will pursue measures that focus on the integration of traffic regulation, traffic control, and traffic guidance. Regarding community roads, in order to ensure safe passage for pedestrians and cyclists, we will promote the development of “30 Zones” that impose speed restrictions of 30 kilometers per hour in a given area, and will also implement traffic restrictions such as prohibition of traffic. In addition, we will implement safety measures such as the provision of easy-to-read and easy-to-understand road signs and road markings such as high-brightness signs, the use of LED signal lights, the installation and widening of road shoulders, and the use of zoning regulations combined with physical devices, as well as traffic facilitation measures such as the improvement of traffic signals and the provision of real-time traffic information using optical beacons and traffic information boards, particularly on peripheral main roads. In addition, with a focus on daily life-related routes as defined in the Act on Promotion of Smooth Transportation, etc. of Elderly Persons, Disabled Persons, etc., (Act No. 91 of 2006, hereinafter referred to as the “Barrier-Free Act”), we will promote the development of acoustic traffic signals that use sound to indicate the status of the signal displays, pedestrian support information and communication systems that help the visually impaired and the elderly to cross safely at intersections (including those that use Bluetooth to transmit pedestrian signal information to smartphones, as well as those that enable users to extend the green light time using their smartphones (hereinafter referred to as “Advanced PICS\*")), pedestrian lights that indicate the waiting time until green and the remaining green time on the signal display, and traffic signals that separate pedestrians and automobiles to prevent traffic accidents.

Further, we will ensure appropriate enforcement by expanding the use of portable automatic speeding control devices, which can be used even on narrow roads with no guardrails across the country.

Through the provision of sidewalks, road administrators will develop a network of pedestrian spaces where people can move around with peace of mind. Moreover, by improving coordination with traffic regulations and traffic control policies implemented by prefectural public safety commissions, measures will be taken to create zones that give

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\* PICS: Pedestrian Information and Communication Systems

priority to pedestrians and bicycles by using road structures that reduce vehicle speed, such as humps and chicanes. This will also lead to measures to reduce through traffic by improving intersections and installing humps and narrow strips at the entry to these areas, thereby ensuring smoother traffic on peripheral main roads.

Meanwhile, other measures will be taken to promote the maintenance of road signs and road markings that are easy to read and understand: these include increasing the brightness of road signs, making them larger, changeable, and light-emitting as necessary, placing signs alongside each other, integrating and improving their locations, and increasing the brightness of road markings (collectively referred to hereinafter as “brighter road signage”).

Furthermore, as well as using big data to eliminate potential danger spots, the national government, local governments, and local residents will collaborate to implement effective countermeasures in areas where many traffic accidents occur.

**B Ensuring traffic safety on school routes, etc.**

In order to ensure traffic safety on school routes and routes where children, particularly preschoolers, move in groups on a daily basis, we will support ongoing efforts to conduct regular joint inspections and to improve and enhance measures based on the “School Route Traffic Safety Program” and similar. In addition, taking into account the results of emergency safety inspections of these routes, necessary measures, both infrastructural and otherwise, will be carried out in cooperation with schools, boards of education, police, nursery schools and similar facilities, their governing bodies, road administrators and other relevant organizations, as appropriate for the actual conditions of road traffic.

In order to ensure safe travel for students attending high schools and junior high schools, and of children and infants attending elementary schools, kindergartens, nursery schools, and children’s centers, we will actively pursue measures such as the construction of sidewalks along school routes, the installation of humps and curb extensions, colored paving of shoulders, installation of protective fences and rising bollards, construction of bicycle paths, bicycle-only lanes, and roads indicating the location of bicycle traffic, construction of push-button traffic signals and pedestrian lights, construction of multirailway crossing facilities, and expansion of crosswalks.

**C Development of pedestrian space to contribute to the safety of the elderly and people with disabilities**

**(A)** In order to achieve a society in which all people, including the elderly and those with disabilities, can participate and be active in safety and comfort, wide sidewalks and other facilities that ensure level ground will be installed, especially around stations, public facilities, welfare facilities, hospitals, etc.

In addition, we will provide sidewalks with improvements in terms of steps, inclines and levels, acoustic and other barrier-free traffic signals, Advanced PICS, pedestrian/vehicle separating traffic signals, escort zones, multi-railway crossing facilities with elevators, pedestrian rest facilities, bicycle parking lots, and automobile parking lots with parking spaces for those with disabilities. Meanwhile, in order to ensure safe and smooth travel for the elderly and those with disabilities, and to deal with the increase in the number of elderly drivers, we will promote the use of LED signal lights and brighter road signage.

At transportation hubs such as the areas in front of stations, we will promote the installation of elevators, ramps, multi-railway crossing facilities directly connected to buildings, and transport plazas to ensure safe and comfortable and walkable spaces.

In particular, in the areas around stations that are designated as priority development areas under the Barrier-Free Act, we will put networks in place using ongoing and comprehensive provision of wide sidewalks that are easy for everyone to walk on and barrier-free traffic signals with functions to ensure safety when crossing. This will be conducted in conjunction with the provision of barrier-free access on public

transportation.

Moreover, tactile paving for the visually impaired, guide signs for pedestrians, barrier-free access maps, etc. will be used to provide appropriate information on the location of public facilities and how to access them.

- (B) In addition to enhanced enforcement against parking violations that are malicious, dangerous, and annoying, such as illegal parking near crosswalks and bus stops, we will also, in cooperation with the municipalities that conduct removal of abandoned bicycles, actively promote enforcement against the illegal parking of motorcycles, etc. on sidewalks and tactile paving for the visually impaired, which impede the smooth movement of the elderly and those with disabilities.

## **(2) Further promoting the use of expressways to differentiate their functions from those of community roads**

We will engage in systematic development of a road network, from high-standard trunk roads (roads necessary for high-speed automobile traffic, which are automobile-only roads that make up a nationwide automobile traffic network, consisting of expressways and automobile-only general national highways) to community roads, and promote differentiation of their functions.

In particular, we will promote the use of roads with low accident rates, such as high-standard trunk roads, while reducing vehicle speeds and eliminate through traffic on community roads, thereby establishing people-first road traffic.

## **(3) Promoting the traffic safety measures on highways**

For traffic safety measures on main roads, priority will be given to select sections with high rates of fatalities and injuries, including dangerous sections, as well as sections based on traffic safety records in the local area. At the planning stage, the effectiveness of the measures will be checked using data on the effectiveness of previous measures, and “results-oriented management” will be pursued to reflect the results in subsequent measures. Fine-tuned and efficient accident countermeasures will be implemented, including measures for potentially dangerous sections using big data, such as data on emergency braking. In addition, roads will be developed systematically so that the functions are appropriately shared across the network, from high-standard trunk roads to community roads, and road provision will be conducted in stronger coordination with other transportation systems. Furthermore, we will promote the use of high-standard trunk roads, which are safer than general roads.

- A Promoting the zero-accident plan (Operation focused to eliminate accident danger zones)

In conducting road improvement projects that contribute to traffic safety, we will use the following procedures to implement the “Zero Accident Plan (Priority Elimination of Accident-Prone Sections). This will allow us to scientifically verify the effectiveness of road improvement projects, apply the management cycle to ensure efficient and effective implementation, and obtain the maximum effect with the minimum budget.

- (A) Given that accidents resulting in death or injury on Japan’s national highways are concentrated in specific sections, such sections and sections that reflect the actual traffic safety situation in the region, will be selected with reference to the views of third parties.
- (B) In addition to alerting local residents to the fact that a section is prone to accidents, accident data will be used to clarify the major accident types and accident factors, and future data on the effectiveness of countermeasures will be used to draw up and implement measures in line with those accident factors.
- (C) After the measures are completed, the effects of the measures will be analyzed and evaluated, additional measures will be taken as necessary, and the evaluation results



- will be used to consider subsequent measures.
- B Implementing measures to prevent accidents in danger spots  
Big data will be used to designate sections of main roads with particularly high accident rates and potential danger spots as accident risk areas, and intensive accident deterrent measures will be implemented in cooperation with prefectural public safety commissions and road administrators. In areas where accidents are likely to occur, we will implement measures such as the installation and improvement of traffic signals, use of separate signals for pedestrians and vehicles, brighter road signage, construction of sidewalks, corner cuts and other intersection improvements, improvement of sight distances, construction of additional lanes, installation of median strips, installation of stop zones on bus routes, construction of protective fences and demarcation lines, and the installation of road lighting and visual guidance signs.
- C Traffic control on main roads  
On general roads, in order to ensure safe and smooth traffic, traffic regulations such as speed limits and prohibitions on overtaking on the right side of the road will be reviewed and optimized, taking into consideration factors such as the structure of the road, the state of provision of traffic safety facilities, and the actual state of road traffic.  
On new expressways and national highways, meanwhile, appropriate traffic regulations will be implemented in order to ensure safe and smooth traffic, taking into consideration factors such as the structure of the road and the state of provision of traffic safety facilities. On existing expressways and national highways, traffic regulations will be reviewed in order to match the actual traffic conditions, taking into consideration factors such as changes in traffic flow, the upgrade status of the road structure, the state of provision of traffic safety facilities, and the incidence of traffic accidents. In particular, in sections where traffic accidents occur frequently, necessary safety measures such as traffic classification and speed restrictions for large freight vehicles will be carried out, and in the event of traffic accidents or traffic disturbances such as bad weather, temporary traffic restrictions will be implemented promptly and accurately to prevent accidents.
- D Preventing the recurrence of serious accidents  
In the event of a serious accident with a significant social impact, we will promptly investigate the causes and prevent the recurrence of similar accidents.
- E Developing a road network with an appropriate division of functions  
(A) In addition to systematically developing a road network, from high-standard trunk roads to community roads, we will actively promote the provision of sidewalks and bicycle paths to separate different types of traffic such as pedestrians, bicycles, and automobiles.  
(B) The safety of the entire road network will be improved by creating a user-friendly environment and sharing out a greater volume of traffic. This will involve constructing high-standard trunk roads, which have a lower casualty rate and higher levels of safety than general roads, and increasing the number of interchanges.  
(C) The development of bypasses and ring roads will be promoted, eliminating through traffic and effectively dispersing traffic, and thereby ensuring a smooth and safe road traffic environment.  
(D) In order to improve the living environment in residential areas surrounded by main roads and commercial areas with a large number of pedestrians, we will differentiate road functions by diverting passing traffic to the main roads as much as possible. This will involve systematic provision of auxiliary main roads, boundary roads, and pedestrian-only roads, etc., as well as closer coordination with traffic regulations and traffic control implemented by prefectural public safety commissions, and comprehensive control of vehicle speed and through traffic using humps and curb extensions, etc.  
(E) In order to establish an efficient transportation system that meets the needs of the

public and to form a positive transportation environment in which smooth traffic flow is ensured, including the elimination of road congestion, we will pursue multimodal policies that aim to coordinate multiple types of transportation such as roads, railways, maritime, and air, as well as providing access roads to transportation hubs such as rail stations, airports, and ports.

F Promoting accident prevention measures on expressways, etc.

On expressways, etc., traffic safety facilities will be systematically installed from a viewpoint of comprehensive implementation of urgent traffic safety measures, while road widening in congested areas and other reconstruction projects, appropriate road maintenance and management, and provision of road traffic information will be actively undertaken to maintain and improve safety standards.

(A) In order to ensure safe and smooth automobile traffic, detailed analysis of accident factors such as rainy weather and nighttime conditions will be carried out on accident-prone sections requiring urgent countermeasures. This analysis will be used to conduct focused maintenance of reinforced median barriers, light emitting visual guidance signs, high-function pavements, and high-visibility demarcation lines. In addition, wire ropes will be installed in sections where the road structure does not allow for separation between lanes, so as to prevent serious accidents due to overflow into the opposite lane.

In order to prevent serious accidents caused by driving in the wrong direction or the entry of pedestrians, bicycles, etc. onto expressways, countermeasures such as road signs and road markings will be augmented. New technologies developed through collaboration between industry, academia, and government, as road surface markings that make use of optical illusions and sensor-based detection and warning equipment will be deployed, and the development of road-vehicle coordination technology using image recognition will be undertaken.

In order to prevent rear-end collisions in congested areas, we will promote the effective use of information boards, including temporary information boards, as well as the use of safety vehicles to guard the tail ends of congested areas.

In addition, as well as installing emergency access points to support rescue and first-aid activities after an accident, we will also provide support for rescue and first-aid activities using helicopters on expressways.

(B) In order to prevent driving while overworked or frustrated, and to ensure a better driving environment conducive to safe and comfortable driving, the following measures will be undertaken: widening of main routes, upgrades of interchanges, countermeasures against traffic congestion through early removal of vehicles stopped due to accidents or breakdowns, and elimination of congestion at rest facilities.

(C) In order to meet the various needs of road users and provide them with appropriate road traffic information, the Vehicle Information and Communication System (VICS<sup>\*</sup>) and ETC2.0 will be developed and expanded. In addition, in order to reduce traffic congestion and improve user service, we will promote the improvement of services that provide users road traffic information immediately using information and communication technology.

G Promoting accident prevention measures by renovating roads, etc.

In order to prevent frequent occurrence of traffic accidents and ensure safe, smooth and comfortable traffic, we will undertake measures to prevent accidents by renovating roads in accordance with the following policy.

(A) In order to improve the safety and living environment of pedestrians and cyclists, projects to reconstruct roads that contribute to the safety of road traffic will be undertaken. These include the widening of existing roads to install sidewalks, measures to discourage vehicles from passing through the area by installing humps and curb

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\* VICS: Vehicle Information and Communication System

extensions on community roads while developing main roads, and the construction of bicycle paths, bicycle-only lanes, and roads indicating the location of bicycle traffic in order to separate bicycle traffic from pedestrians and vehicles.

- (B) In order to prevent traffic accidents and reduce traffic congestion in and around intersections, we will promote the downsizing of intersections and the use of grade-separated crossings.

In addition, the introduction of roundabouts, which are expected to prevent traffic accidents and mitigate damage by reducing speed of entry, and reduce waiting time by eliminating the need for traffic signals, will be undertaken at appropriate locations, taking into consideration the surrounding land use conditions.

- (C) Since harmonizing the functions of roads with their actual use, including the use of land along the roads, contributes to ensuring traffic safety, we will promote the provision of secondary roads, tree planting zones, and measures to prevent vehicles from parking on the road, taking into account actual traffic flow and access from the roadside.

- (D) In order to secure safe and comfortable traffic space for pedestrians and cyclists in commercial districts, etc., we will pursue the construction of facilities such as wide sidewalks, bicycle paths, and bicycle-only lanes in line with their traffic volume and usage.

- (E) In order to systematically separate human and vehicle traffic and expand pedestrian space in areas where there is significant traffic congestion, such as city centers and around railway stations, we will conduct comprehensive development of main roads, pedestrian decks, and traffic plazas around these areas.

- (F) In districts with outstanding historical environments, such as historic townscapes and landmarks, we will conduct systematic development of roads leading to the historical district, roads for daily life within the district, and historical paths in order to appropriately separate traffic within the district from tourist traffic and through traffic.

#### H Enhancing traffic safety facilities, etc.

- (A) In addition to, as appropriate for traffic conditions, promoting improvements in signal control, such as centralized control and multi-stage programming to link multiple traffic signals in an area or line, we will also promote the use of LED signal lights to improve visibility by preventing illusory blinking.

- (B) In order to ensure traffic safety in accordance with the structure of roads and traffic conditions, we will undertake the provision of brighter road signage, highly functional road surfaces, and highly visible demarcation lines, etc. We will also promote the installation of kilometer posts (point markers) so that traffic accidents can be easily identified, accidents can be promptly dealt with and accurately investigated, and the location of vehicles and the distance to their destinations can be easily confirmed. Furthermore, we will also undertake the provision of oncoming vehicle approach systems that warn drivers of approaching vehicles on curves with poor visibility.

#### **(4) Promoting projects to improve traffic safety facilities, etc.**

In line with the Priority Plan for Social Infrastructure Development established based on the Act on Priority Plan for Social Infrastructure Development (Act No. 20 of 2003), prefectural public safety committees and road administrators will collaborate to investigate and analyze the actual situation of accidents. Meanwhile, we will make improvements to the road traffic environment, prevent traffic accidents, and facilitate smoother traffic by implementing traffic safety facility maintenance projects in a focused, effective, and efficient manner as per the following policy.

##### A Strategic maintenance of traffic safety facilities, etc.

Prefectural public safety commissions are faced with the issue of measures to deal with

the aging of traffic signals and other infrastructure which has been in place for a long time. Therefore, in line with the “Basic Plan for Extending the Lifespan of Infrastructure” etc., drawn up by the Liaison Council of Relevant Ministries and Agencies on Measures to Combat Aging Infrastructure in 2013, they will promote the replacement of aging facilities, extending their lifespans, and reducing lifecycle costs from a medium- to long-term perspective. In particular, road signs and road markings at crosswalks, which are a prerequisite for giving priority to pedestrians crossing the street, should be managed efficiently and appropriately so that their effectiveness is not impaired due to damage, loss, fading, or wear.

**B Promoting measures for pedestrians, bicycles, and community roads**

Under a “people-first” approach to community roads, we will implement comprehensive and whole-area traffic accident countermeasures such as “30 Zones” to control vehicle speed and to reduce or eliminate through traffic. In addition, given the continued aging of society and the falling number of children, we will work to ensure barrier-free walking spaces and safe and secure walking spaces on school routes and routes where children, particularly preschoolers, move in groups on a daily basis.

Furthermore, we will ensure a safe travel space for pedestrians and bicycles by improving the environment for bicycle use, promoting the elimination of utility poles, and taking measures at railway crossings with safety issues.

**C Promoting measures for main roads**

Since traffic accidents on main roads are concentrated in particular sections, we will implement priority accident-prevention measures in such areas. When doing so, we will implement measures such as improvement of traffic signals and intersections, using objective analysis of accident data to ascertain the causes of accidents.

**D Promoting measures for smooth traffic**

In order to facilitate traffic safety, traffic signals will be improved, intersections will be made multi-level, and Railway Crossings with long closing times will be eliminated. In addition, parking measures will be implemented to increase traffic capacity, ensure smooth traffic flow, and reduce carbon dioxide emissions from automobiles.

**E Using ITS to achieve a safe and comfortable road traffic environment**

In order to collect, analyze, and provide traffic information, control traffic signals in response to traffic conditions, and regulate traffic on roads in a comprehensive and whole-area manner, traffic control areas will be expanded, and traffic control systems will be enhanced and upgraded.

Specifically, traffic signal control systems will be improved by centralized control and multi-stage programming to link multiple traffic signals in an area or line, and a new traffic management system (UTMS\*) will be implemented by installing optical beacons and improving traffic control centers using state-of-the-art information and communication technology. At the same time, we will enhance road traffic information provision by expanding the information collection and provision environment and building a traffic environment that contributes to the practical application of automated driving technology, with the aim of achieving a safe and comfortable road environment.

**F Promoting residents’ participation in road traffic environment improvement**

In addition to actively conducting general traffic safety inspections, in which traffic safety facilities are inspected with the active participation of local residents and road users, a “Sign Box” and “Traffic Signal Box” will be used to reflect the opinions of road users in the development of the road traffic environment.

**G Use of liaison councils, etc.**

The “Prefectural Road Traffic Environment Safety Promotion Liaison Councils” set up by prefectural police forces and road administrators, as well as the “Advisor Councils” set

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\* UTMS: Universal Traffic Management Systems

up under these, will be used to discuss the planning, evaluation, and progress management of measures, while receiving advice from academic experts, thereby realizing a safe road traffic environment in a precise and steady manner.

#### **(5) Securing and improving transportation for the elderly, etc.**

Under the partial amendment to the Act on Revitalization and Rehabilitation of Local Public Transportation Systems (Act No. 59 of 2007), which came into effect in November 2020, local authorities will take the lead in drawing up master plans for local public transport (local public transport plans) aimed at securing means of transportation for local residents, including the elderly, and will implement initiatives to improve public transportation services and to secure and enhance sustainable means of travel by mobilizing local transportation resources.

We will promote the social implementation of local automated driving services, such as automated last-mile driving that links the nearest station to users' destinations, and automated driving services based at roadside stations in mountainous regions, which will contribute to preventing accidents and securing means of transportation for elderly people.

In addition, we will promote the nationwide spread of MaaS\*, a new mobility service that improves the convenience of travel by public transportation, by developing MaaS models that contribute to solving local issues and by providing support for the infrastructure required to make it widespread, thereby securing and enhancing means of transportation for the elderly and other local residents.

#### **(6) Implementing universal design in walking spaces**

In order to achieve a society in which all people, including the elderly and those with disabilities, can participate and be active in safety and comfort, we will actively promote the comprehensive and ongoing implementation of universal design in walking spaces on roads connecting stations, public facilities, welfare facilities, hospitals, etc. This will involve constructing wide sidewalks, improving sidewalks in terms of steps, and levels, eliminating utility poles, and installing tactile paving for the visually impaired. We will also work to provide safe and secure walking spaces, including barrier-free access.

#### **(7) Promoting of the elimination of utility poles**

With a view to ensuring a safe and comfortable traffic space, a new plan to promote the elimination of utility poles will be drawn up on the basis of the Act on the Elimination of Utility Poles (Act No. 112 of 2016). This plan will include a prohibition on the use of new poles on very narrow sidewalks and restrictions on the use of existing poles, and the elimination of utility poles will be advanced in cooperation with related businesses.

In addition, we will promote efforts to ensure the safety of pedestrians by reducing the size of ground-level electrical enclosures.

#### **(8) Promoting effective traffic regulation**

To maintain safe and smooth traffic flow, we will conduct ongoing inspections and reviews of traffic regulations and traffic control based on actual local traffic conditions, and also implement comprehensive measures, both infrastructural and otherwise, by accurately identifying changes in these conditions.

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\* MaaS: Mobility as a Service

In terms of speed regulations, the maximum speed limit will be examined and reviewed from the viewpoint of whether or not it is reasonable and appropriate for the actual traffic conditions. On general roads, the speed limit will be raised and the reasons for the limit will be made known to the public in a systematic manner, taking into consideration actual speeds and the incidence of traffic accidents, while on community roads, speed control measures will be actively implemented.

With regard to parking regulations, we will promote parking regulations that are finely tuned to the road environment, traffic volume, parking demand, etc., taking into account the views and demands of local residents and focusing on areas where there is insufficient provision for necessary and unavoidable parking demand.

Meanwhile, in order to make signals easier to observe for pedestrians and cyclists, traffic signal control will be improved in accordance with actual crossing conditions, such as by adjusting signal displays, improving push-button signals with long waiting times for pedestrians, and other operational changes.

Furthermore, the quality of the information on traffic regulations provided by prefectural public safety commissions will be improved and a database will be promoted to create an environment that promotes effective traffic regulation.

## **(9) Development of a comprehensive bicycle environment**

### **A Creating a safe and comfortable environment for bicycle use**

In order to realize a clean, energy-efficient and sustainable inner-city transportation system, it is necessary to create a safe and comfortable environment for bicycle use by clarifying the role and position of bicycles, appropriately separating pedestrians, bicycles, and automobiles according to traffic conditions, and taking measures to prevent accidents between pedestrians and bicycles. Therefore, based on the Bicycle Utilization Promotion Plan defined by the Bicycle Utilization Promotion Act (Act No. 113 of 2016), we will promote awareness of the "Guidelines for Creating a Safe and Comfortable Environment for Bicycle Use" (Ministry of Land, Infrastructure, Transport and Tourism, and National Police Agency), providing technical advice and promoting efforts to create a safe and comfortable bicycle use environment. This will involve formulating local bicycle utilization promotion plans, including bicycle network plans based on the said plans and guidelines, and developing spaces for bicycle traffic based on the use of roadways, separating pedestrians and bicycles.

In addition, in order to improve the safety of bicycle traffic, in sections of road where bicycle-only lanes have been set up or there is mixed use of bicycles and automobiles, regulations prohibiting parking or stopping cars will be implemented as necessary in light of the actual traffic conditions in the vicinity. Alongside this, there will be proactive enforcement against vehicles that are illegally parked or stopped in a highly malicious, dangerous, and troublesome manner, such as blocking bicycle-only lanes.

In each local area, road administrators and prefectural police will promote awareness of the "Guidelines for Creating a Safe and Comfortable Environment for Bicycle Use" so that they can create bicycle networks, develop road space, and thoroughly enforce traffic rules. Furthermore, they will actively promote measures to encourage bicycle use, such as use of shared bicycles, as well as social measures, such as activities to raise awareness of rules and etiquette, and the development and popularization of various types of bicycles.

### **B Promoting measures for bicycle parking, etc.**

Regarding measures for bicycle parking, we will promote the establishment of a Bicycle Parking Measures Council, the formulation of a comprehensive plan, and the development of off-street and on-street bicycle parking facilities in accordance with usage conditions, particularly in areas where the demand for bicycle parking is high or expected to increase significantly in the future. In addition, we will promote the enactment of ordinances that

require the establishment of bicycle parking lots, etc. for facilities that generate a great deal of demand for bicycle parking. Furthermore, in addition to promoting the development of bicycle parking lots by the Bicycle Parking Lot Development Center, etc., the national government and local authorities will support private businesses that develop bicycle parking lots, thereby further advancing measures for bicycle parking.

In order to solve the problem of abandoned bicycles around railway stations, etc., local governments, road administrators, prefectural police, railway operators, etc. will maintain appropriate cooperative relationships and promote the rearrangement and removal of bicycles left in stationfront plazas and on roads by enacting ordinances and other measures appropriate to local conditions.

In particular, in order to facilitate smooth travel by the elderly and those with disabilities on daily life-related routes in priority development areas, as designated by municipalities under the Barrier Free Act, we will make intensive efforts to prevent illegal parking through public relations and educational activities in cooperation with related organizations and groups, as well as to promote the development of bicycle parking lots.

## **(10) Use of ITS**

We will continue to promote ITS (Intelligent Transportation Systems). These new road transportation systems are designed to improve safety, transportation efficiency and comfort by building systems that integrate people, roads, and vehicles with state-of-the-art information and communication technology, and to contribute to environmental conservation by reducing traffic congestion and otherwise making traffic smoother. Therefore, under the “Declaration for the Creation of the World’s Most Advanced Digital Nation/Basic Plan for the Promotion of Public-Private Data Utilization” approved by the Cabinet in July 2020, the government will further promote research and development, field testing, infrastructure development, dissemination, and studies on standardization in cooperation with industry and academia, and will actively promote international cooperation such as international information exchange and international standardization at the ITS World Congress.

### **A Provision of road traffic information and communication systems**

In order to ensure safe and smooth road traffic, we will not only promote the development and expansion of VICS, which provides real-time information on traffic congestion, travel times, regulations, and other road traffic information, but also enhance the provision of highly accurate information and promote the use of compatible on-board devices.

In addition, in order to collect and provide detailed road traffic information, we will promote the development of infrastructure such as optical beacons and ETC2.0, as well as consolidating and distributing a wide range of road traffic information such as real-time vehicle travel history (probe) information to supplement the information provided by the infrastructure.

### **B Promoting new traffic management systems**

In order to optimize traffic management using state-of-the-art information and communication technology, we will promote ITS by developing and maintaining UTMS using optical beacons, thereby aiming to realize a safe, smooth, comfortable, and environmentally friendly traffic society.

### **C Promoting driver assistance systems for preventing traffic accidents**

In order to enhance traffic safety through the evolution of ITS, industry, academia, and the government will collaborate to conduct research and development aimed at the further dissemination and enhancement of driver assistance systems that use communication technologies such as road-to-vehicle communication, vehicle-to-vehicle communication, and walker-to-wheel communication as countermeasures against accidents that cannot be handled by automobiles alone.

In addition, ITS will be promoted through the development of Traffic Signal Prediction Systems (TSPS\*) and other UTMS. These systems encourage relaxed driving by providing drivers with information on the color of traffic signal lights and other information in advance of their arrival at intersections with traffic signals.

D Deployment of ETC2.0

ETC 2.0 supports safe driving by providing information on points of frequent accidents, warnings about fallen objects on the road, etc. In addition, by making use of wide-ranging and detailed big data, such as collected speed data, usage route and time data, we will promote initiatives to use roads intelligently, such as smart tolling to reduce traffic congestion and accidents.

E Promoting advanced information technology for road transportation projects

In order to achieve safe and smooth vehicle operation that takes the environment into account, ITS technology will be utilized in road transportation projects to encourage use of public transportation. Specifically, we will promote the development of a Public Transport Priority System (PTPS\*).

### **(11) Promoting traffic demand management**

In order to improve traffic safety by easing the still severe traffic congestion and ensuring smooth road traffic, public relations and educational activities to establish and promote TDM will be actively undertaken. Specifically, in addition to upgrades to traffic control and measures to increase traffic capacity, such as the construction of bypasses and ring roads and the improvement of intersections, we will seek new ways to use roads, such as by promoting park-and-ride, enhancing information provision, staggered commuting, and the introduction of flextime systems. In so doing, we will improve transportation efficiency and equalize traffic volume across time and space.

Policies for ensuring smooth traffic will be implemented comprehensively and systematically in line with the Basic Act on Transportation Policy (Act No. 92 of 2013) and the Basic Plan for Transportation Policy drawn up based on this act. This will involve cooperation and mutual coordination between the national government, local governments, transportation-related business operators, transportation facility managers, residents, and other stakeholders.

A Promoting public transportation

Under the partial amendment to the Act on Revitalization and Rehabilitation of Local Public Transportation Systems (Act No. 59 of 2007), which came into effect in November 2020, local authorities will take the lead in drawing up master plans for local public transport (local public transport plans) in response to regional travel needs, and will promote the use of public transport by improving public transport services.

Specifically, on some roads with significant road traffic congestion, measures will be implemented to promote the use of buses, such as setting up bus-only and priority lanes, installing high-grade bus stops and PTPS, and introducing park-and-bus rides and community buses.

In addition, implementing measures to secure, maintain, and improve public transportation systems such as railways and buses, including supporting the development of tram and monorail systems, will promote their use, lead to smoother transportation on roads.

Moreover, we will promote the nationwide spread of MaaS by developing MaaS models that contributes to solving local issues and by providing support for the infrastructure required to make it widespread, thereby securing and enhancing means of transportation

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\* TSPS: Traffic Signal Prediction Systems

\* PTPS: Public Transportation Priority Systems



in local communities and sightseeing areas, and maintaining and revitalizing public transportation.

Meanwhile, railway and bus operators will strive to achieve seamless public transportation by reviewing their frequency of service and operating hours, as well as improving connections, thereby providing greater convenience to users. In addition, in order to secure access to railway stations and bus stops, we will enhance their functions as transportation hubs, promoting the development of park-and-ride parking lots, bicycle paths, bicycle-only lanes, roads indicating the location of bicycle traffic, stationfront plazas, and centralized public transportation terminals.

**B Promoting more efficient use of freight vehicles**

Logistics efficiency will be improved in order to promote efficient use of freight vehicles. This will involve measures such as using joint transportation to improve loading efficiency, and using secure drop locations and delivery boxes to reduce redelivery of packages.

**(12) Developing a disaster-resistant road traffic environment**

**A Developing disaster-resistant roads**

We will work to ensure road traffic that helps people live their lives in safety and security in the event of disasters such as earthquakes, heavy rains, heavy snowfalls, and tsunamis.

Seismic countermeasures for bridges on emergency transportation roads will be implemented to ensure a reliable road network that can be used to carry out emergency activities quickly and safely in the event of an earthquake. Disaster prevention measures, such as road slopes and the construction of roads to avoid or replace sections that may be affected by disasters, will be implemented to ensure a safe, secure, and reliable road network even during heavy rains and heavy snowfalls. In order to minimize the human suffering caused by tsunamis, early provision of information to road users, construction of evacuation routes for quick evacuation, and construction of high-standard highways to avoid tsunami inundation areas will be carried out to secure roads for emergency transportation even when tsunami damage occurs.

In addition, we will position Roadside Stations as regional disaster prevention centers and enhance their disaster prevention capabilities, such as serving as evacuation sites in the event of an earthquake, tsunami, or other disaster.

**B Development of disaster-resistant traffic safety facilities, etc.**

In order to ensure safe and smooth road traffic in the event of disasters such as earthquakes, heavy rains, heavy snowfalls, and tsunamis, traffic safety facilities such as traffic control centers, traffic monitoring cameras, vehicle detectors, and traffic information boards will be installed. Furthermore, in order to implement traffic regulations such as road closures quickly and effectively, we will develop and introduce road disaster monitoring systems and promote the provision of traffic control materials and equipment. Alongside this, we will promote the installation of supplementary power supply devices for traffic signals to prevent them from stopping due to power outages in the event of a disaster, as well as the systematic replacement of aging traffic signals, road signs, and road markings.

Furthermore, we will facilitate proper operation of the “Wide-area Traffic Control System,” which uses an internet connection to allow the National Police Agency to collect detailed traffic information in real time from the traffic control centers of prefectural police and use it for wide-area traffic management.

**C Traffic regulation during disasters**

In the event of a disaster, the inflow of vehicles into the affected area will be controlled, and after assessing the damage, necessary traffic regulations such as road closures will be

implemented promptly and accurately in accordance with the provisions of the Basic Act on Disaster Management (Act No. 223 of 1961).

In addition, from the viewpoint of minimizing confusion in the event of a disaster, we will promote the use of roundabouts, which can ensure safe and smooth road traffic when traffic volume and other conditions are met.

D Enhancing information provision during disasters

In order to collect, analyze, and provide information on damage to roads and road traffic conditions promptly and accurately in the event of a disaster, and to contribute to recovery, securing of emergency traffic routes and emergency transportation roads, and provision of road traffic information to road users, we will promote the installation of seismographs, traffic monitoring cameras, vehicle detectors, road traffic information devices, and road management information systems, etc., as well as the provision of disaster information regarding roads and traffic over the internet and similar media.

In addition, we will promote the provision of traffic information during disasters by generating and providing operational performance information from probe information held by police and road administrators and probe information held by private businesses.

**(13) Promoting the measures for overall parking**

In order to ensure the safety and smoothness of road traffic, and to contribute to the maintenance and promotion of urban functions, comprehensive parking measures will be implemented in accordance with road traffic conditions and local conditions.

A Promoting fine-tuned parking regulations

In addition to inspecting and reviewing parking regulations, we will promote fine-tuning of regulations by relaxing them in accordance with local traffic conditions, taking into account the views and demands of local residents as well as the need for goods transportation and demand for motorcycle parking.

Promoting measures against illegal parking

(A) Focusing on highly malicious, dangerous, and troublesome violations, we will conduct vigorous enforcement based on the guidelines for enforcement activities, tailored to local conditions. In addition, when it is deemed necessary after taking into account the road traffic environment and other conditions on the ground, appropriate measures such as reviewing the guidelines for enforcement activities will be taken.

(B) With regard to abandoned vehicles for which the driver cannot be held responsible, we will make active use of orders for the payment of abandonment fines to the users of such vehicles and orders for restriction of use against users who have been repeatedly ordered to pay abandonment fines, thereby holding users responsible. On the other hand, for malicious parking violations, such as those that have caused traffic accidents or are habitual, drivers will be held accountable.

C Provision of parking lots, etc.

In order to curb uncontrolled parking on the streets and ensure safe and smooth road traffic, the following measures will be taken in addition to the promotion of parking regulations and illegal parking controls to promote the development, proper placement, and effective use of parking lots.

(A) We will conduct surveys on the development of parking lots, promote the designation of parking lot development areas in areas with congested automobile traffic, and promote the drafting of parking lot development plans in order to implement systematic and comprehensive parking measures in such areas.

(B) In addition to promoting the development of mandatory incidental parking facilities based on local parking demand, we will also promote the development of private parking facilities.

Furthermore, the development of public parking lots will be promoted in areas that require

the maintenance and enhancement of urban services, as well as in areas that require priority development of parking lots, such as transportation hubs.

(C) Parking guidance systems will be upgraded to encourage effective use of existing parking lots. In addition, in order to deter excessive influx of vehicles from suburban areas and avoid traffic congestion in the city center, we will create an environment conducive to the spread of park-and-ride, such as by placing parking lots on the edges of urban areas. Parking lot placement will also be optimized with reference to urban development plans.

(D) In order to deal with shortages of parking spaces at rest facilities on expressways, we will increase the number of parking spaces, introduce a parking lot reservation system, and promote the use of rest facilities outside expressways, such as by expanding rest services based at Roadside Stations.

D Fostering the will to eliminate illegal parking

In addition to conducting public relations and awareness-raising activities regarding the elimination of illegal parking and the provision of storage space for vehicles, we will work in close cooperation with relevant organizations and groups to foster the will to eliminate illegal parking, with the understanding and cooperation of local residents, through the active participation of local traffic safety activity promotion committee members.

E Promoting integrated infrastructural and social parking measures

We will promote comprehensive parking measures that combine both infrastructural and social approaches, focusing on areas where there is insufficient provision for necessary and unavoidable parking demand. Such measures include reviewing local parking management schemes, inspecting and improving parking regulations in accordance with the views and demands of local communities, such as residents' associations and local shopping districts, promoting voluntary efforts by road users and related businesses, encouraging local governments and road administrators to improve off-street parking, joint goods handling spaces and on-street goods handling spaces, controlling illegal parking, and conducting proactive public relations and awareness-raising activities.

#### **(14) Enhancement of road traffic information**

In order to ensure safe and smooth road traffic, it is important to provide drivers with accurate, detailed, and easy-to-understand road traffic information, and it is also necessary to enhance road traffic information by using ICT and similar technologies to meet the public's need for more advanced and wide-ranging information and to provide it in a timely and appropriate manner.

A Enhancing information collection and provision systems

In order to ensure safe and smooth road traffic by providing road users with necessary road traffic information that meets their increasingly diverse needs, we will improve information collection and provision systems by installing optical beacons, traffic monitoring cameras, vehicle detectors, traffic information boards, road information devices, etc. We will also improve and upgrade traffic control systems by expanding traffic control areas, and facilitate the creation of a nationwide database of traffic control information.

In addition, in order to build a traffic environment that contributes to the actual implementation of automated driving, we will pursue projects that contribute to the computerization of traffic control and traffic signals, such as traffic information collection and traffic information collection/provision devices.

Furthermore, as part of ITS, VICS and ETC2.0, which provide drivers with road traffic information such as traffic congestion, will be actively developed and expanded in order to disperse traffic, eliminate traffic congestion, and promote safe and smooth traffic.

B Enhancing road traffic information with ITS

As part of ITS, VICS and ETC2.0, which provide drivers with road traffic information such as traffic congestion, will be actively developed and expanded. By promoting ETC2.0 services, which provide information relating to traffic congestion avoidance, safe driving, and disaster support through the use of ETC2.0 compatible car navigation systems and ETC2.0 in-vehicle units, we will make information provision more sophisticated, eliminate traffic congestion caused by dispersed traffic, and promote safe and smooth traffic.

C Promoting projects to provide appropriate road traffic information

The Road Traffic Act (Act No. 105 of 1960) stipulates a notification system for operators that provide predictive traffic information, corrective measures against operators that cause traffic hazards or congestion on roads by providing inaccurate or inappropriate predictive traffic information, while the guidelines for the provision of traffic information (Public Notice of the National Public Safety Commission No. 12 of 2002) stipulate requirements that operators should observe when providing traffic information. These will be used as a basis to promote the provision of accurate and appropriate road traffic information by private operators, by providing them with guidance and supervision, and by ensuring the appropriateness of their traffic information provision services.

D Ensuring an easy-to-understand road traffic environment

We will promote the installation of large, fixed signs and roadside changeable signs that are highly visible and durable to ensure effective traffic control by time and type of vehicle, as well as the construction of systematic and easy-to-understand guide signs and reversible lane system that meet the needs of users.

In addition, efforts will be made to address increasing internationalization by installing guide signs with route numbers, etc. at intersections and near intersections of major trunk roads, improving the provision of English-language guide signs, and promoting the provision of traffic control signs that can display both Japanese and English.

### **(15) Development of a road traffic environment that contributes to traffic safety**

A Optimizing road use and road occupation, etc.

(A) Optimizing road use and road occupation

When granting permission for the use and occupation of roads for the installation of structures and construction of buildings, etc., we will maintain the structure of the roads, perform proper operations to ensure safe and smooth road traffic, and provide guidance on compliance with the permit conditions and on proper maintenance and management of occupied property.

(B) Elimination of illegal occupation of property, etc.

Illegal occupation of property that interferes with road traffic will be eliminated by ascertaining the actual situation and performing strict supervision and enforcement, with particular emphasis on urban areas. Furthermore, in order to eliminate illegal occupation of roads, it is essential that those living along the road and other road users are aware of the problem. Therefore, awareness-raising activities to prevent illegal occupation of roads and promote the concept of road protection will be vigorously undertaken, mainly during “Road Friendship Month.”

In addition, in order to effectively coordinate road construction and similar work, we will further enhance and expand the use of computer mapping systems that perform data processing using digital maps based on drawings.

(C) Regulations on digging up roads, etc.

For road-occupying construction that involves digging up public roads, the timing and method of construction will be coordinated in order to prevent disorderly digging up of roads and accidents and traffic congestion caused by the work.

Furthermore, we will pursue the construction of utility tunnels as a drastic measure

to prevent digging.

**B Promoting development of rest facilities, etc.**

In order to prevent accidents caused by overworked drivers and to cope with the increase in the number of elderly drivers in recent years, we will actively promote the development of Roadside Stations and other rest facilities.

**C Securing play areas for children**

In order to solve the shortage of play areas for children, help prevent traffic accidents caused by roadside play, and create comfortable living environments in cities, we will promote the development of key parks in residential areas, key urban parks, and similar facilities under the Priority Social Infrastructure Development Plan.

Furthermore, in areas that are disadvantaged in terms of children's play areas, such as downtown areas, areas with small residential complexes, areas with frequent traffic, or in areas close to these, priority will be given to the establishment of children's centers and children's playgrounds, mainly for infants and children in the early grades of elementary school, as well as to the promotion of the opening up of schoolyards and physical education facilities of public elementary schools, junior high schools, and high schools, and of the yards of social welfare facilities.

**D Prohibition or restriction of traffic under the Road Act**

When traffic is deemed to be dangerous due to damage or lack of damage to the road or due to abnormal weather conditions, or for unavoidable reasons due to construction work on the road, traffic shall be prohibited or restricted promptly and precisely in accordance with the Road Act (Act No. 180 of 1952) to preserve the structure of the road and prevent traffic hazards. In addition, supervision and enforcement measures will be implemented in order to prevent violations of the prohibition or restriction on the passage of vehicles carrying dangerous goods through underwater tunnels, etc., and the prohibition or restriction on the passage of vehicles exceeding the maximum size, weight, etc., for the road.

**E Ensuring safety in different regions**

In Specified Snow Coverage and Cold Districts, we will promote the following measures against snowy and frozen road surfaces in order to ensure safe road traffic in winter: preventive and systematic traffic control carried decisively without regard for prefectural or regional demarcations, intensive snow removal work, implementation of snow chain rules, spraying of anti-freezing agents, maintenance of snow melting facilities at intersections, and provision of snow gutters and chain removal stations, etc.

In addition, when heavy snow is expected, we will provide road users with a wide range of information, such as on road closures, the presence of stuck vehicles, and calls for wide-area detours and refraining from going out, using various means such as road information boards, radio, and social media. Meanwhile, in the event of traffic stoppages, we will provide information directly and periodically to those who are stuck, including information on snow removal work, progress in clearing the stoppages, and the outlook for lifting road closures.

Furthermore, in order to help ensure safe road traffic, we will promote the installation of road information devices that collect information on weather, road surface conditions, etc. and provide it to users.

## **2 Comprehensively implementing traffic safety awareness initiatives**

Traffic safety education is important in developing good citizens who, under the principle of respect for human life, are aware of their responsibilities as members of a traffic society, strive to improve their awareness of the rules of traffic safety and etiquette, respect the positions of others, and contribute to the safety of other people and the community. In order to raise people's awareness of traffic safety and help them learn traffic etiquette, it is important to promote lifelong learning in line with the process of human growth, and to encourage each citizen to think of traffic safety as an issue relevant to them. In accordance with a people-first approach traffic safety, it is also important to foster knowledge about and compassion for children, the elderly, and people with disabilities, as well as to be considerate of the pain experience by victims of traffic accidents and to raise awareness of the need to avoid becoming either a victim or a perpetrator of traffic accidents.

To this end, the Traffic Safety Education Guidelines (Public Notice of the National Public Safety Commission No. 15 of 1998) and similar materials will be used to provide step-by-step and systematic traffic safety education for everyone from infants to adults, in accordance with their stage of life and physical and mental development. In particular, as the aging of the population progresses, we will strive to raise awareness of traffic safety among the elderly, have other generations learn about elderly people's distinctive characteristics and the need to protect and care for them. In addition, the community will work together to ensure the safety of the elderly through community watch activities. Furthermore, for elementary school students, junior high school students, and high school students, who are members of the traffic society and often use bicycles, enhanced education on basic knowledge of road traffic, traffic safety awareness, and etiquette relating to bicycle use will be provided. At schools, efforts will be made to systematically implement this across all educational activities, including related subjects, comprehensive learning time, special activities, and independent activities on the basis of the Courses of Study Guidelines, while incorporating effective learning activities that make use of ICT. In addition, in accordance with the School Safety Plan to be formulated based on the School Health and Safety Act (Act No. 56 of 1958), guidance on traffic safety in school life, including commuting to school, and in other areas of daily life, including that relating to the use of bicycles, shall be provided to students. For children with disabilities, consideration will be given to providing guidance on traffic safety in special support schools, etc., with due regard to the nature of their disabilities.

In conducting traffic safety education and awareness-raising activities, we will actively incorporate educational methods based on participation, experience, and practice. Also, by enhancing the relevant educational materials and posting them on our website, we will use the internet to promote their use in the traffic safety education conducted in communities and schools, as well as striving to provide the necessary information in an easy-to-understand manner, thereby enabling citizens to practice safe traffic behavior on the basis of their own understanding.

For young people in particular, efforts will be made to raise awareness of traffic safety by providing effective information, and to create an environment in which they can take the initiative in traffic safety awareness activities.

For traffic safety education and awareness-raising activities, the national government, local governments, police, schools, relevant private organizations, local communities, businesses, and households will be encouraged to make use of their respective characteristics and collaborate with each other on activities that unite the local area. In particular, we will work to improve the leadership skills of local government officials and faculty members involved in traffic safety education and awareness-raising activities, as well as to develop private-sector leaders in the community, thereby promoting voluntary activities that suit local conditions.

In addition, in order to effectively conduct community-based traffic safety education and awareness-raising activities, efforts will be made to promote intergenerational exchanges in the community and at home by having children, parents, grandparents, and other generations

discuss traffic safety and call for caution.

Furthermore, after the implementation of traffic safety education and awareness-raising activities, the effectiveness of the activities will be reviewed and evaluated, and efforts will be made to make the activities more effective and to deepen the awareness of the people involved about their significance and importance.

At the same time, taking into account the increase in the number of foreign residents and visitors to Japan, efforts will be made to accurately convey the traffic rules of Japan, which aims to be the safest traffic society in the world, while maintaining tolerance for a diversity of cultural backgrounds.

#### **[Priority Measures and New Measures in the 11th Plan]**

- Promoting participation/experience/practical activities ((1) F, G, (2), (3) A, C, F)
- Promoting traffic safety education for the elderly ((1) F)
- Ensuring the safety of crossing pedestrians ((3) B)
- Promoting safe bicycle riding ((3) C)
- Promoting correct use of seat belts by all passengers ((3) D)
- Promoting the wider use of reflective materials and equipment ((3) F)
- Promoting traffic safety education and awareness-raising activities to eradicate drunk driving ((3) G)
- Promoting the use of protectors and other safety gear by motorcyclists ((3) I (c))
- Promoting voluntary activities by private traffic safety organizations ((4))
- Promoting participation and cooperation in traffic safety activities in the community ((5))

#### **(1) Promoting step-by-step and systematic traffic safety education**

##### **A Promoting traffic safety education for young children**

The goal of traffic safety education for young children is to have them acquire the attitude of observing basic traffic rules and practicing traffic etiquette according to their stage of physical and mental development and local conditions, and to have them acquire the basic skills and knowledge necessary for safe travel on roads in daily life.

In kindergartens, nursery schools, and certified childcare centers, traffic safety education will be provided in a systematic and continuous way, in all aspects of daily educational and childcare activities, in cooperation and collaboration with households and relevant organizations and groups. In order to carry out these activities effectively, efforts will be made to provide easy-to-understand instruction, for example, by using picture-story shows and audiovisual materials, and by practicing with parents and children. At the same time, instructional materials will be prepared, the teaching skills of teachers and staff will be improved, and further provision of teaching materials and equipment will be made.

Guidance on traffic safety will be conducted in children's centers and playgrounds through play as part of guidance on daily life. Relevant organizations and groups will support traffic safety education in kindergartens, nursery schools, and certified childcare centers by providing a wide range of teaching materials, tools, and information tailored to local traffic conditions and the physical and mental development of the young children. In addition, they will endeavor to hold traffic safety seminars for guardians so that they can provide appropriate guidance to their children at home, such as by always acting as role models for their children in travelling safely on roads.

In addition, we will promote the use of traffic volunteers to teach young children safe behaviors for their journey to and from school and during out-of-school activities, and to hold traffic safety seminars for guardians.

**B Promoting of traffic safety education for elementary school students**

The goal of traffic safety education for elementary school students is to help them acquire the necessary skills and knowledge as pedestrians and cyclists, reflecting their stage of physical and mental development and local conditions, and also to improve their awareness and ability to anticipate and avoid dangers in road traffic, allowing them to travel safely in accordance with road and traffic conditions.

Traffic safety education in elementary schools will be provided, while working in cooperation with households and relevant organizations and groups, throughout the school's educational activities, including physical education, moral education, comprehensive learning time, and special activities. This education will emphasize safe walking, safe use of bicycles, safe use of vehicles, prediction and avoidance of danger, and the meaning and necessity of traffic rules.

To this end, we will prepare and distribute educational materials for safe travel to and from school, including the safe use of bicycles, further promote traffic safety classes, and conduct practical training sessions on CPR for teachers.

Relevant organizations and groups will support the traffic safety education provided in elementary schools and conduct complementary traffic safety education for children. In addition, traffic safety seminars for guardians should be held so that they can teach their children basic traffic rules and etiquette, through exemplary everyday behavior in actual traffic situations, such as while walking or riding a bicycle.

Moreover, we will promote the use of traffic volunteers to teach children how to behave safely and hold traffic safety seminars for their guardians.

**C Promoting of traffic safety education for junior high school students**

The goal of traffic safety education for junior high school students is to help them acquire the skills and knowledge necessary for traffic safety in their daily lives, especially for safely riding bicycles on the road, and to help them be considerate and mindful not only of their own safety, but also that of other users when riding on the road.

Traffic safety education in junior high schools will be provided, while working in cooperation with households and relevant organizations and groups, throughout the school's educational activities, including health and physical education, moral education, comprehensive learning time, and special activities. This education will emphasize safe walking, safe use of bicycles, characteristics of automobiles, prediction and avoidance of danger, the meaning of signs, responsibility of the perpetrator in bicycle accidents, and first aid.

To this end, we will prepare and distribute educational materials for safe travel to and from school, including the safe use of bicycles, further promote traffic safety classes, and conduct practical training sessions on CPR for teachers.

Relevant organizations and groups will support the smooth implementation of traffic safety education at junior high schools by dispatching instructors, providing information, etc., They will also conduct traffic safety seminars for guardians and supplementary traffic safety education for junior high school students in the community.

**D Promoting traffic safety education for high school students**

The goal of traffic safety education for high school students is to provide them with the necessary skills and knowledge for traffic safety in daily life, especially for safe travel on the road as bicycle and motorcycle users, and also to develop individuals who can act responsibly as members of a traffic society, obeying traffic rules and respecting the lives of others.

Traffic safety education in high schools will be provided, while working in cooperation with households and relevant organizations and groups, throughout the school's educational activities, including health and physical education, comprehensive learning time, and special activities, working to further develop students' understanding of safe use of bicycles, characteristics of motorcycles and automobiles, prediction and avoidance of



danger, responsibilities of drivers, and first aid. Furthermore, since it is expected that many of the students will obtain a driver's license in the near future, traffic safety education will be provided with an emphasis on that premise. With regard to instruction on the safety of motorcycles and automobiles in particular, schools will work with PTAs and organizations and groups that promote safe driving to enhance practical traffic safety education in accordance with the actual circumstances of students and the local community. Taking into consideration the fact that some students may need to ride motorcycles, etc. while in school for reasons such as travelling to and from school, this education will include raising awareness of safe driving and instruction on practical skills.

To this end, we will prepare and distribute educational materials for safe travel to and from school, including the safe use of bicycles, further promote traffic safety classes, and conduct practical training sessions on CPR for teachers.

Relevant organizations and groups will support the smooth implementation of traffic safety education at high schools by dispatching instructors, providing information, etc. They will also provide supplementary traffic safety education for high school students and people of equivalent age in the community. In addition, the students will be encouraged to think about the roles that high school students can play by interacting with elementary and junior high schools, and to actively participate in traffic safety activities.

#### E Promoting traffic safety education for adults

Traffic safety education for adults will focus on education for drivers on obtaining and after obtaining a license, taking the perspective of ensuring safe driving of vehicles, etc. In addition, efforts will be made to enhance traffic safety education for working adults, university students, and others.

Since the education when obtaining a driver's license is mainly provided at driving schools, efforts will be made to further improve the level of instruction.

Driver education after obtaining a driver's license will aim to improve people's consciousness of their social responsibility as drivers, the knowledge and skills necessary for safe driving, especially the ability to predict and avoid danger, as well as to develop an understanding of the pain of traffic accident victims and better knowledge of traffic safety and traffic etiquette. This will be conducted mainly through various training courses held by prefectural public safety commissions, driver education courses conducted by driving schools and private traffic safety education facilities as appropriate for the characteristics of the participants, and traffic safety education courses conducted by safe driving supervisors and operations supervisors as part of workplaces' safe driving supervision practices.

Employers that use automobiles will actively encourage safe driving supervisors, operations supervisors, etc. to participate in statutory training courses, training sessions for instructors, etc., and strive to promote voluntary safe driving supervision practices in their workplaces. In addition, at training facilities such as the Japan Safe Driving Center's Central Training Institute for Safe Driving, training will be conducted to develop driver education instructors who possess advanced driving techniques, teaching methods, etc., and facilities will be set up for this traffic safety education to be conducted.

Furthermore, we will work to promote traffic safety education, including the safe use of bicycles, in classes and lectures for working adults, promote various programs for traffic safety at community centers and other social education facilities, and promote activities by relevant organizations, groups, and traffic volunteers.

For university students and special training school students, we will work with related organizations and groups to enhance traffic safety education in a way that is appropriate for the students' use of bicycles, motorcycles, and automobiles and the accident situation.

In addition, in view of the increasing number of young people who do not have a driver's license, we will endeavor to provide opportunities for young people and adults who do not have a driver's license to learn about traffic safety.

F Promoting traffic safety education for the elderly

The goal of traffic safety education for the elderly is, bearing in mind that there are differences in traffic behavior, risk perception, and knowledge of traffic rules, etc., depending on whether they have a driver's license or not, to help them understand the effects of age-related changes in physical functions on their traffic behavior as pedestrians or drivers, behavior by pedestrians and cyclists that is dangerous from a driver's point of view, as well as to help them acquire the practical skills and knowledge of traffic rules, etc., necessary for them to be able to practice safe traffic behavior with confidence.

In order to promote traffic safety education for the elderly, the national government and local governments will endeavor to improve the instructional system by training personnel in charge of traffic safety guidance for the elderly, developing teaching materials. They will actively promote traffic safety education based on participation, experience and practice using a variety of educational tools. Crossing violations make up a higher proportion of the violations committed by elderly people than among those committed by other groups. Taking this into account, efforts will be made to provide traffic safety education that encourages compliance with traffic rules. Furthermore, in addition to holding traffic safety classes for the elderly in cooperation with related organizations, traffic volunteers, medical facilities and welfare facilities, etc., traffic safety education will be conducted by taking advantage of various opportunities such as social education sessions for the elderly, welfare activities, and other events. In particular, efforts will be made to ensure the safety of elderly people's travel in the community as a whole by providing individual guidance during home visits and advice during opportunities for daily contact with elderly people, such as community watch activities. These efforts will focus especially on those elderly people who, because they do not have a driver's license, have not had the opportunity to receive traffic safety education. In this case, specific guidance shall be given in accordance with the actual situation regarding accidents involving the elderly, while making sure to encourage elderly people's own initiative, and efforts shall be made to promote the use of reflective materials and equipment.

In addition, for elderly drivers, efforts will be made to enhance the content of training courses for the elderly and training courses at the time of license renewal, as well as to promote the establishment of traffic safety subcommittees in senior citizens' clubs, senior citizens' homes, etc. and the training of traffic safety instructors for the elderly (Silver Leaders), thereby improving traffic safety awareness through mutual education between elderly people. Meanwhile, senior citizens' clubs, etc. will develop their own traffic safety activities in cooperation with related organizations and groups, and will endeavor to play a leading role in traffic safety activities in the community and at home.

For elderly people who use electric wheelchairs, we will work with organizations made up of electric wheelchair manufacturers to provide thorough guidance and advice on safe use of electric wheelchairs at the time of purchase, as well as promoting ongoing traffic safety education.

In order to promote the spread of safe driving among the elderly in the community, we will hold training sessions based on participation, experience and practice for silver leaders and others who have influence among local elderly people. By providing them with the knowledge necessary for safe driving among the elderly and improving their leadership skills, we will work to train people who will engage in ongoing promotion of traffic safety among the elderly.

In addition, efforts will be made to provide opportunities for the elderly to have hands-on experience with the advanced safety technologies installed in safe driving support vehicles.

Furthermore, in order to accurately respond to the further aging of society and to create a traffic society in which the elderly can go out safely and with peace of mind, we will strive not only to raise awareness of traffic safety among the elderly themselves, but also

to encourage the nation as a whole to watch over and pay attention to the elderly, and to work together to ensure the safety of the elderly through community watch activities.

**G Promoting traffic safety education for persons with disabilities**

For people with disabilities, in order for them to acquire the skills and knowledge necessary for traffic safety, efforts will be made to assign sign language interpreters, use videos with subtitles, etc., and to conduct traffic safety education based on participation, experience and practice that is finely-tuned according to people's levels of disability.

In addition, for people with disabilities who are unable to walk independently, training sessions for caregivers, traffic volunteers, and other persons accompanying people with disabilities will be held.

**H Promoting traffic safety education for foreign nationals**

In order to spread awareness of Japanese traffic rules and etiquette to foreign residents, and to prevent traffic accidents, we will promote effective traffic safety education for foreign residents, such as by helping them understand the differences in traffic rules and attitudes toward traffic safety between Japan and their home countries, and also encouraging them to participate in seminars and other events through employers who employ foreign nationals. In addition, in response to the expected increase in the number of foreign visitors to Japan, we will promote activities to familiarize them with Japan's traffic rules through various information media such as multilingual guidebooks and websites, in cooperation with related organizations and groups involved in attracting foreign visitors.

For foreign drivers, we will implement multilingual driver's license examinations for foreign drivers in accordance with their requests and residence circumstances.

**I Enhancing educational activities for traffic offenders**

In penal institutions, efforts will be made to further enhance the guidance for reform, such as "traffic safety guidance" and "education from victims' points of view," which are provided to inmates who have caused traffic accidents that seriously affect victims' lives or bodies of victims or who have repeatedly committed serious traffic violations. In particular, the guidance for those who have driven under the influence of alcohol and for inmates with alcohol dependency problems will be further enhanced.

At juvenile training schools, appropriate education and guidance will be provided to juveniles who have committed traffic offenses in accordance with the nature of their individual problems, and education on traffic problems will be enhanced with an emphasis on fostering respect for human life and a spirit of abiding by the law. In addition, for juveniles who have committed incidents that resulted in the death of the victim or harm to the life or body of the victim, education that incorporates the victim's perspective will be enhanced by the use of a guest speaker system.

Regarding classification assessments for juvenile traffic offenders at juvenile assessment centers, expert research will be actively conducted to accurately understand the characteristics of juveniles who commit traffic offenses and to develop more appropriate traffic assessment methods, with the use of driving aptitude tests and Ministry of Justice Driving Attitude Test to be further improved and enhanced.

**J Enhancing probation for those placed on probation for traffic offenses**

With regard to probation for traffic offenses, the treatment capabilities of probation officers and volunteer probation officers in charge of group and individual treatment will be enhanced, and effective treatment focusing on the problems of those given probation for traffic offenses, such as drunk driving prevention programs, will be implemented.

**(2) Promoting effective traffic safety education**

In providing traffic safety education, educational methods based on participation,

experience, and practice should be actively utilized in order to enable participants to acquire the knowledge and skills necessary for safe travel on roads and to understand the necessity of such.

Institutions and organizations that provide traffic safety education should share information on traffic safety education and conduct it in cooperation with other relevant institutions and organizations, such as by lending materials and equipment, dispatching instructors, and providing information on traffic safety education in response to requests.

In addition, efforts should be made to promote steady education through flexible use of various methods, such as training and recruitment of traffic safety education instructors in accordance with participants' age, information literacy, and mode of participation in road traffic, as well as the use of equipment such as drive recorders, simulators, and VR.

Furthermore, we will check the effectiveness of traffic safety education, review the educational methods and materials used as necessary, and strive to ensure that traffic safety education is always effective, taking into account technological advances and changes in society and lifestyles.

In addition to the previous efforts, traffic safety education and public relations and awareness-raising activities that do not involve face-to-face interaction will be effectively implemented, such as by providing learning opportunities using videos and actively utilizing various resources such as websites and social media.

### **(3) Promoting public awareness activities relating to traffic safety**

#### **A Promoting traffic safety campaigns**

In order to spread and increase awareness of traffic safety widely among the public, to instill in them the habit of observing traffic rules and practicing proper traffic etiquette, and to promote their own efforts to improve the road traffic environment, an ongoing traffic safety campaign will be rolled out systematically in cooperation with national campaign organizers and organizations, traffic countermeasure councils and other local authority institutions and organizations.

The main points of the traffic safety campaign shall be set to reflect the traffic situation and the time of year, such as the prevention of traffic accidents involving pedestrians, cyclists and motorists, and the prevention of traffic accidents at dusk and at night, while regional points of emphasis shall be determined as necessary in order to implement effective traffic safety campaigns that are in line with local conditions.

In implementing the traffic safety campaign, the purpose, period, focus, and plan of the campaign should be made known to the public in advance to enhance and develop the campaign with their participation. In addition, relevant organizations and groups should work together to conduct the campaign based on the actual accident situation and the needs of residents and traffic accident victims so that ongoing voluntary activities can be undertaken even after the campaign ends.

We will also encourage the participation of private organizations and traffic volunteers who are likely to provide finely tuned community-based activities, promoting traffic safety activities that make people aware of traffic accidents as an issue relevant to them through traffic safety classes based on participation, experience, and practice.

Furthermore, in order to raise national awareness of traffic safety, to deter traffic accidents by encouraging each and every member of the public to act with caution, and to further ensure the recent downward trend in traffic accident fatalities and injuries, a "Day for Zero Traffic Accident Deaths" will be set for the spring and autumn National Traffic Safety Campaign periods. Promotional activities using street campaigns and government announcements, as well as publicity and awareness-raising activities by traffic-related organizations, will be actively deployed.

Afterwards, the effects of the campaign will be checked and evaluated so that more

effective campaigns can be carried out in the future.

**B Ensuring the safety of crossing pedestrians**

Since many fatal accidents at crosswalks without traffic signals involve vehicles not decelerating sufficiently before the crosswalk, traffic safety education and traffic enforcement will be conducted to remind drivers of their obligation to decelerate before crosswalks and to give priority to pedestrians at crosswalks.

In addition, pedestrians should be informed of traffic rules, such as crossing at crosswalks and obeying traffic signals where they are present. Furthermore, traffic safety education will be provided to encourage pedestrians to act to protect their own safety, such as clearly informing drivers of their intention to cross, checking for safety before starting to cross, and being aware of their surroundings while crossing.

**C Promoting safe bicycle riding**

We will make people understand that when bicycles are on the road, they must obey the rules for vehicles and practice correct traffic etiquette.

In order to prevent traffic accidents while riding bicycles and promote their safe use, we will step up activities to raise awareness of the correct way to ride bicycles, including riding in consideration of pedestrians and other vehicles, by using the “Five Rules for Safe Use of Bicycles” (adopted by the Traffic Task Force of the Central Traffic Safety Council on July 10, 2007). Although bicycles are used for various purposes such as delivery, commuting, and school commuting, there are many cases of people violating the rules and etiquette due to inadequate understanding of traffic rules, so we will work to enhance traffic safety education.

Bicycles can also be the injuring party in the event of a collision with a pedestrian, so they need to be fully aware and responsible as participants in traffic. Therefore, we will promote awareness of this issue, and with the cooperation of related businesses, implement measures such as inspection and maintenance of bicycles and the purchase of liability insurance in preparation for cases where the bicycle is the injuring party.

In addition, we will administer a training system for cyclists as appropriate, thereby raising awareness of compliance with the rules for cyclists.

In order to prevent accidents involving bicycles during dusk and at night, we will work to improve bicycle visibility by ensuring that lights are turned on and by promoting the use of reflective materials and equipment.

In order to ensure the safety of infants carried as passengers on bicycles, guardians will be provided with traffic safety education based on participation, experience, and practice so that they can experience the impact that riding with an infant has on handling a bicycle. In addition, we will promote the widespread use of bicycles designed for carrying two infants, which offer excellent safety features for doing so, and promote public relations and educational activities to ensure that infants wear seat belts when riding in infant seats equipped with them.

We will strive to promote understanding among parents of infants and children of the importance of head protection for infants and children when riding bicycles and the damage mitigation effects of wearing helmets, encouraging the use of helmets for infants and children, as well as by cyclists of all ages.

Furthermore, in order to prevent traffic accidents during bicycle deliveries, the relevant businesses will be encouraged to take traffic safety measures, guidance and awareness-raising activities for bicycle delivery staff will be conducted on the streets, and delivery staff will be encouraged to follow traffic rules through the restaurants involved.

**D Ensuring proper use of seat belts in all seats, including rear seats**

We will work to promote understanding of the effects of wearing seat belts and the correct way to wear them, and to ensure the correct use of seat belts in all seats, including the rear seat.

Because the fatality rate when seat belts are not worn in the rear seat is much higher

than when seat belts are worn, we will cooperate with local governments, related organizations, and other parties to conduct traffic safety education based on participation and hands-on experience, using images of crash tests and Seat Belt Convincers to allow people to feel the effects of wearing seat belts.

E Ensuring proper use of child seats

We will conduct publicity and awareness-raising activities to promote better understanding of the effects of using child seats and how to use them correctly, working to ensure their proper use. Particular efforts will be made for guardians of older infants.

Because the fatality rate when a child seat is used improperly is much higher than when it is used properly, effective publicity, education, and guidance to guardians on the effects of using child seats and how to use them will be conducted in cooperation with kindergartens, nursery schools, certified childcare centers, hospitals, and retailers, making use of the symbols for promoting child seat use.

In addition, efforts will be made to publicize and raise awareness about the use of child seats for children who are six years of age or older but who, due to their size or other circumstances, are unable to wear a seat belt properly.

We will also promote the creation of an environment that facilitates the use of child seats through the use of various support systems implemented by local authorities and private organizations.

Furthermore, we will encourage child seat manufacturers and automobile manufacturers to take actions such as promoting the spread of child seats that meet the new standards (i-Size, which stipulates requirements such as preventing incorrect installation and ensuring safety during side collisions), promoting the publication of charts showing compatibility between child seats and car seats, providing comparative information on the safety of each product, and creating easy-to-understand instruction manuals. We will also ensure that users are given guidance and advice on the correct use of child safety seats at stores, and that information is made available to anyone who requires a child seat, for example, through obstetrics and gynecology departments and local government offices.

F Promoting the use of reflective materials

In order to promote the use of reflective materials and equipment which can help prevent accidents among pedestrians and cyclists from dusk to nighttime, publicity and awareness-raising activities will be actively conducted using various media. In order to promote better understanding of the effects and usage of reflective materials and equipment, traffic safety education based on participation, experience, and practice will be implemented, and exhibitions of reflective materials and equipment will be held in cooperation with related organizations and groups.

In promoting the use of reflective equipment, we will recommend the incorporation of reflective materials into personal items such as clothing, shoes, bags, etc., and endeavor to provide information on products with appropriate reflective performance, etc.

G Promoting traffic safety education and public awareness activities to eliminate drunk driving

We will continue to conduct traffic safety education and publicity activities to raise awareness of the dangers of drunk driving and the reality of traffic accidents caused by drunk drivers. In addition, we will cooperate with traffic volunteers, safe driving supervisors, operations supervisors, liquor manufacturers and sellers, restaurants serving alcoholic beverages, and those involved in parking lots, to further promote efforts to eliminate drunk driving in local communities, work areas, such as by promoting designated driver campaigns, encouraging pre-journey testing using alcohol detectors, etc. In so doing, we aim to establish a common norm among the public of “never drink and drive, never let anyone drink and drive.” In particular, young drivers have a higher rate of fatal accidents due to drunk driving than other age groups. Therefore, the relevant ministries and agencies will work together to carry out publicity and awareness-raising

fine-tuned to young drivers and other target groups.

In addition, in cases where a drunk driver is suspected of having an alcohol dependency problem, efforts will be made to promote collaborative efforts among relevant organizations and groups so that the driver and their family can receive consultation, guidance, and support tailored to local conditions.

Moreover, we will actively share information on measures being taken by each local government to eliminate drunk driving so that they can be used as a reference when implementing measures in other regions.

#### H Conducting effective publicity campaigns

The following policies will be implemented to ensure effective publicity campaigns, making use of all kinds of media including television, radio, newspapers, mobile terminals, the internet, and digital signage, and by focusing on specific and appealing messages based on the actual traffic accident situation, messages closely related to daily life, and messages that incorporate the voices of victims of traffic accidents.

(A) We will actively conduct wide-ranging campaigns in cooperation with households, schools, workplaces, and local communities, as well as intensive public-private sector campaigns in various media to prevent traffic accidents involving children and the elderly, ensure the proper use of seatbelts and child restraints in all seats, including the back seat, eradicate malicious and dangerous driving such as obstructive driving and drunk driving, and eliminate illegal parking.

In addition, we will also make people aware of the dangers of operating smartphones while driving.

(B) Since households play an extremely important role in traffic safety, enhanced efforts will be made to reach households through finely-tuned publicity campaigns, publicity through local public organizations and neighborhood associations, etc., thereby protecting children, the elderly, and other groups from traffic accidents and raising awareness of the need to eliminate malicious and dangerous driving, such as obstructive driving and drunk driving.

(C) In order to assist publicity campaigns for public safety conducted by private organizations, national government and local governments shall actively provide materials and information on traffic safety, and seek the understanding and cooperation of the media in order to raise public awareness.

#### I Promoting other publicity and awareness-raising activities

(A) In order to raise public awareness of the need to prevent traffic accidents involving the elderly, we will actively publicize the reality of accidents involving elderly people walking and riding bicycles. In addition, efforts will be made to promote the display of elderly driver signs (senior driver marks) to the elderly, as well as to encourage other age groups to understand the characteristics of elderly drivers and to raise awareness of the need for protection for vehicles with the senior driver mark attached.

(B) Since there is a tendency for serious accidents to occur more frequently from dusk to nighttime, the actual conditions and dangers of accidents due to speeding, drunk driving, pedestrian crossing violations, etc., which are the main causes of serious accidents at night, will be widely publicized in order to prevent such violations.

In addition, by using traffic information boards in accordance with seasonal and weather changes and local conditions, we will encourage people to turn on the headlights of cars and bicycles early, use high beams when there are no oncoming or preceding vehicles, and promote the use of reflective materials and equipment by pedestrians and cyclists.

(C) The head is the most common site of injury in motorcycle fatalities, followed by the chest. In order to mitigate injuries caused to motorcyclists, efforts will be made to increase understanding of the importance of the proper use of helmets and protectors in protecting the chest and other parts of the body by conducting publicity and awareness-

raising activities in cooperation with related organizations and groups.

- (D) In order to prevent tractor accidents, we will work to raise awareness of the need to attach lights, and other necessary equipment to implements, to set up cabins and frames on tractors, and to fasten seat belts when driving on public roads.
- (E) In order for the public to recognize the traffic accident situation and develop an awareness of traffic accident prevention, we will promote more sophisticated traffic accident analysis using geographic information and other systems, as well as striving to provide and distribute accident data and information on accident blackspots through the internet and other media.
- (F) Information on advanced technologies such as collision damage mitigation brakes and automated driving will be summarized as comprehensive safety information, including information to encourage users to use such technologies without overconfidence, information on automobile assessments, effectiveness of safety devices, popularization of drive recorders, proper use of automobiles, inspection and maintenance methods, and general information on traffic accidents. This information will be delivered in a timely and appropriate manner depending on the recipients, such as automobile users, automobile-based transportation businesses, and automobile manufacturers, in order to raise awareness of traffic safety among the parties concerned.
- (G) We will enhance public awareness of traffic safety by providing opportunities to think about traffic accident prevention through research presentations, results presentations, and discussions by academics and experts involved in traffic safety.

#### **(4) Promoting independent traffic safety activities by private organizations, etc.**

We will promote the independent activities of private organizations that work toward traffic safety by providing support for projects including the training of traffic safety instructors and various events, as well as stepping up efforts to provide materials necessary for traffic safety. In addition, regional organizations, automobile manufacturing and sales organizations, and automobile user organizations will be encouraged to take advantage of opportunities such as the National Traffic Safety Campaign to conduct traffic safety activities effectively and proactively in a manner appropriate for their respective positions and the local conditions. To this end, regular liaison and consultations regarding traffic safety measures will be held between the government and private organizations, as well as between private organizations, thereby promoting the development of traffic safety activities that involve the public as a whole.

In addition, we will provide support for traffic volunteers who may not necessarily be part of an organization to improve their capabilities, thereby promoting their independent activities and the development of a system for them to liaise and cooperate with each other. In addition, we will step up measures for bolstering local personnel involved in traffic safety, such as school and child safety volunteers.

We will work to develop leaders and organizations that provide traffic safety education tailored to local conditions, and to promote traffic safety education and awareness-raising activities led by private organizations and traffic volunteers.

In addition, as the age of traffic volunteers is increasing, efforts will be made to involve people of all ages so that traffic safety efforts can be steadily passed on to the next generation.

#### **(5) Promoting participation and cooperation in traffic safety activities in the community**

Since traffic safety is dependent on the safety awareness of local residents, it is important to raise the awareness of not only local residents, but also commuters who visit and interact



with the area, thereby encouraging them to develop the mindset of being a member of the traffic society.

As such, in order to spread the concept of traffic safety widely, the government, private organizations, businesses and residents should work closely together to conduct activities that are relevant to the actual situation in each community, and actively promote the participation and cooperation of residents.

In this regard, in order to contribute to local residents' understanding of traffic safety, efforts will be made to actively feedback the opinions of local residents and others into traffic safety efforts, such as the independent creation of "Near Miss Maps" by residents and road users, general traffic safety inspections, and the active use and publicization of prefectural and municipal traffic safety plans, etc.

### **3 Securing safe driving**

In order to ensure safe driving, it is necessary to improve drivers' skills and capabilities. For this reason, efforts will be made to improve driver education, etc., not only for drivers but also for those who are trying to obtain a driver's license. In particular, we will enhance education for elderly drivers, whose number is expected to increase significantly in the future. Necessary improvements will also be made to the driver's license system, taking into account the recent traffic situation.

In addition, driver education, guidance by safe driving supervisors, and other publicity and awareness-raising activities will be conducted to raise awareness among drivers of the need to protect pedestrians and cyclists, including the elderly, people with disabilities, and children, such as the fact that pedestrians have priority at crosswalks.

Furthermore, in anticipation of future changes in the automobile-based transportation business, we will emphasize the roles and responsibilities that companies and workplaces should play in traffic safety, promote voluntary safe driving supervision practices by companies and workplaces, enhance safety measures for automobile-based transportation companies, and promote efforts to prevent transportation-related occupational accidents.

In addition, in order to provide timely and appropriate information on natural phenomena that affect the safety of road traffic, we will use technologies such as ICT to enhance the provision of comprehensive information relating to road traffic.

#### **[Priority Measures and New Measures in the 11th Plan]**

- Enhancing measures for elderly drivers ((1) E)
- Promoting safe driving supervision ((3))
- Promoting widespread use of drive recorders ((3))
- Promoting safety measures based on the Safety Plan for Commercial Vehicles, etc. ((4))
- Measures based on proposals by the Committee for the Investigation of Accidents Involving Commercial Vehicles ((4) F)
- Promoting safety evaluation projects for automobile-based transportation businesses, etc. ((4) I)
- Safety measures for land transportation of international shipping containers ((6) B)

#### **(1) Enhancing driver education, etc.**

In order to develop drivers who can practice safe driving after acquiring the knowledge and skills necessary to do so, we will enhance traffic safety education that fosters safety awareness from before obtaining a driver's license, and at the time of obtaining a driver's license and after doing so, education will be provided especially to improve the ability to drive safely in actual traffic situations.

In addition, the content of education will be enhanced so that these opportunities are not limited to simply teaching knowledge and skills, but also improve drivers' awareness and attitude toward safe driving by providing education tailored to individual psychological and personality traits, education to instill a deeper understanding of the tragedy of traffic accidents by using the memoirs of traffic accident victims, and education to promote awareness of the state of one's own physical functions and health.

A Enhancing education for those seeking a driver's license

(A) Enhancing training at driving schools

With regard to the training at driving schools, we will review and study the training curriculum while taking into consideration traffic conditions such as the incidence of traffic accidents and the road environment, etc. We will improve standards of training by enhancing the skills of instructors, enriching the content of the training, and

improving the methods used.

In addition, efforts will be made to provide the public with information on training standards.

(B) Enhancing training during license acquisition

We will endeavor to improve training for those who wish to obtain a moped license, regular motorcycle license, large motorcycle license, regular license, semi-medium vehicle license, medium vehicle license, large vehicle license, regular class-2 license, medium vehicle class-2 license, and large vehicle class-2 license.

B Enhancement of re-education for drivers

In order to effectively provide refresher training for drivers through courses for those who have had licenses revoked or suspended, courses for those who have committed traffic violations, courses for first-time drivers, courses at the time of license renewal, and courses for the elderly, efforts will be made to expand course facilities and equipment, improve the quality of course instructors, upgrade course materials and equipment, and enhance course content and methods.

From the perspective of eradicating drunk driving, particular efforts will be made to ensure that courses for those who have had their licenses revoked for drunk driving are properly conducted and to enhance drunk driving education classes.

Meanwhile, driving schools will strive to enhance their functions as local traffic safety education centers by providing refresher courses for those who have already obtained driver's licenses.

C Re-education at training courses for drivers who engage in malicious or dangerous behavior, such as obstructive driving.

After diagnosing the driving characteristics of trainees through driving aptitude tests, the necessary individual guidance will be provided in order to correct bad or dangerous driving patterns.

D Promoting safe driving measures for motorcycles

In addition to the training at the time of license acquisition, efforts will be made to conduct safe driving training for motorcycles and mopeds.

Furthermore, efforts will be made to enhance and strengthen education for motorcyclists by promoting the development of traffic safety education systems at designated driving schools.

E Enhancing measures for elderly drivers

(A) Enhancing education for the elderly

Efforts will be made to effectively implement training courses for the elderly, and to expand the number of classes for the elderly in renewal courses. In particular, training courses for the elderly will focus on driving skills, and efforts will be made to provide more effective and efficient education.

(B) Reliable implementation of emergency aptitude tests, etc.

Efforts will be made to identify drivers suspected of having dementia through opportunities such as cognitive function tests and safe driving consultations, and administrative penalties such as revocation of driver's licenses will be taken for those who pose a problem to safe driving by ensuring that emergency aptitude tests are conducted.

In addition, in order to ensure the smooth implementation of the emergency aptitude tests, etc., efforts will be made to strengthen the system by securing specialists in dementia to conduct the tests in cooperation with relevant organizations and groups.

(C) Appropriate and smooth enforcement of the revised Road Traffic Law

The Act for Partial Revision of the Road Traffic Act (Act No. 42 of 2020), which includes the introduction of a driving skills test system for elderly drivers who are 75 years of age or older and have a certain record of violations, and the introduction of a system of licenses with limited conditions, such as limiting the vehicles eligible for

application to safe driving support vehicles, is scheduled to be enforced by June 2022. We will make preparations for the appropriate and smooth enforcement of the revised law and facilitate the appropriate operation of these systems after it comes into effect.

(D) Use of elderly driver signs (senior driver marks)

In order to raise the safety awareness of elderly drivers, we will promote the active use of the senior driver mark.

(E) Promoting measures to support the elderly

In order to create an environment where it is easy for elderly people who have concerns about driving to surrender their driver's licenses, the relevant ministries and agencies will work together to promote awareness of the driving history certificate system.

In addition, in order to secure means of transportation for local residents, including the elderly, local governments will take the lead in drawing up master plans for local public transport (local public transport plans), thereby improving public transportation services and promoting efforts to secure and enhance sustainable means of transportation by mobilizing local transportation resources.

F Ensuring proper use of seat belts, child seats, and helmets

In order to ensure the proper use of seat belts and child seats in all seats, including the rear seat, and the proper use of helmets when riding motorcycles, we will actively conduct campaigns to promote the use of seat belts and child seats through various seminars, traffic safety campaigns, and other opportunities in cooperation with relevant organizations and groups. We will also conduct traffic guidance and enforcement on the streets against violations of mandatory seat belt, child seat, and helmet use.

G Enhancing operations at the Japan Safe Driving Center

Making use of the various training facilities at the Japan Safe Driving Center's Central Training Institute for Safe Driving, we will provide enhanced traffic safety education based on participation, experience, and practice for safe driving instructors, vocational drivers, and young drivers who require advanced driving skills and specialized knowledge, and further enhance notification, certification, and research services.

H Guidance and training for designated driver businesses, etc.

In order to ensure the proper operation of designated driver businesses and to ensure traffic safety and the protection of users, on-site inspections, etc. shall be conducted at such businesses, and strict control shall be exercised over illegal activities such as unapproved business, violation of the obligation to take measures for damages, and driving without a license.

I Improvement of aptitude tests for drivers engaged in automobile-based transportation work, etc.

In order to ensure the safety of automobile-based transportation work, it is obligatory for business operators to have elderly drivers, etc. undergo aptitude examinations. The certification standards for conducting aptitude examinations have been clarified to create an environment for these examinations to take place.

J Early removal of dangerous drivers

In addition, eliminating long-term pending cases through the appropriate and swift operation of the administrative penalty system, efforts will be made to remove dangerous drivers as soon as possible by such means as prompt and accurate emergency aptitude tests for persons suspected of having diseases that may interfere with the safe operation of vehicles.

## **(2) Improving the driver licensing system**

The driver's license test will be examined in light of the recent traffic situation, such as trends in traffic accidents, etc., to determine whether it accurately judges ability in actual

traffic environments, and improvements will be made as necessary.

In addition, in order to provide driver's license services from the standpoint of the people, efforts will be made to reduce the work involved in renewing a license by simplifying procedures, address the feelings of victims of traffic accidents, and to cooperate with driving schools to expand the system for accepting participants onto training courses for the elderly.

Furthermore, we will improve the facilities and equipment for people with disabilities at driver's license testing centers and provide enhanced safe driving consultation services.

### **(3) Promotion safe driving supervision**

In addition to enhancing training for safe driving supervisors and deputy safe driving supervisors (collectively referred to hereinafter as "safe driving supervisors"), thereby improving their capabilities and safety awareness, and also guide traffic safety education guidelines within the workplace, we will also instruct them to ensure that traffic safety education based on the traffic safety education guidelines is properly conducted in their workplaces.

In addition, we will further enhance the measures to be taken by safe driving supervisors for young drivers and freight vehicle safety, eliminate workplaces where safe driving supervisors have not been appointed, bolster companies' internal safe driving supervision systems, and thoroughly implement safe driving supervision practices.

Moreover, the system for reporting violations of the Road Traffic Act and other laws in connection with business activities to employers, will be fully utilized, and employers will be held thoroughly accountable for violations ordered or permitted by them or their safe driving supervisors.

In order to further prevent traffic accidents in the course of business activities, efforts will be made to promote the use of in-vehicle devices that contribute to ensuring safe driving, such as drive recorders and digital operation recorders (collectively referred to hereinafter as "drive recorders"), and to promote awareness of how to use the images obtained from drive recorders, etc. for traffic safety education and safe driving supervision that promotes awareness of the dangers hidden on familiar roads and problems in everyday driving behavior.

### **(4) Promoting safety measures based on the Safety Plan for Commercial Vehicles, etc.**

All relevant parties (government, businesses, and users) will work together to promote comprehensive measures based on the Comprehensive Safety Plan for Commercial Vehicles, which aims to reduce the number of fatalities, serious injuries, personal injuries, and drunk driving incidents involving commercial vehicles.

A Establishing a safety culture through transportation safety management, etc.

We will continue to implement Transportation Safety Management Assessments, in which the government verifies the establishment and improvement of business operators' safety management systems. In addition, through the assessment of transportation safety management, efforts will be made to raise awareness of disaster prevention among transport operators and to strengthen advance measures, etc. As well as strengthening transportation disaster prevention efforts, this will allow accurate confirmation of transport operators' safety-related initiatives in light of the impact of infectious diseases and instill awareness on the part of operators regarding thorough compliance and observance.

In addition, in order to raise the safety awareness of business operators, we will continue to provide them with information on the incidence of serious accidents involving commercial vehicles, various safety measures for commercial vehicles, etc. through the mailing list "Safety Communication for Commercial Vehicles" and the "Comprehensive Safety Information for Automobiles" website. Efforts will also be made to support the

implementation of accident prevention consulting by using outside experts, etc., and to enhance company-internal safety education.

**B Taking drastic measures to eliminate malicious violations such as drunk driving and nuisance driving**

In addition to instructing drivers to use alcohol detectors during roll calls to thoroughly check for alcohol intoxication, we will promote the use of alcohol counselors who will provide drivers, including habitual drinkers, and operations supervisors with basic information about alcohol, methods for reducing alcohol consumption, and other specialized guidance to prevent drunk driving, with the aim of achieving zero drunk driving incidents at businesses. In addition, we will continue to raise awareness of the need to eradicate drug use.

Furthermore, we will instruct businesses to provide guidance and supervision to drivers regarding distracted driving, such as driving while looking at or talking on a phone, and nuisance driving, such as tailgating, which obstructs the passage of other vehicles and can lead to serious traffic accidents.

**C Developing and promoting ICT, automated driving, and other new technologies**

In order to promote accident prevention efforts by operators, efforts will be made to promote the spread of ASV devices such as collision damage reduction brakes and devices that contribute to operations management.

In addition, we aim to further reduce the number of accidents by promoting the use of systems that make use of driving information acquired through communication systems for vehicles and in-vehicle devices, and comprehensive data that links vehicles, in-vehicle devices, and health care devices.

Moreover, by making use of ICT technology that can be used for operations management, we will promote their development and proliferation in order to improve safety by changing working styles and improving the quality of operations management.

**D Measures to prevent accidents based on strengthening universal service coordination in a super-aged society**

In light of the aging of business vehicle drivers and the increase in accidents in which elderly people are victims, we will promote measures to prevent accidents caused by elderly drivers and implement initiatives based on the actual situation of on-board accidents in passenger buses.

**E Accident prevention measures based on accident incidence trends, major factors, etc. in each business category**

In order to ensure the safety of transportation, all parties involved in the field will work together to implement accident prevention measures based on the characteristic accident trends for each type of truck, bus, and cab, as well as the age and health status of the drivers. In addition, further enhancement of driver education will be explored and implemented, including the formulation of a manual for driver guidance and supervision and the establishment of more effective guidance methods.

In addition, in light of the 2016 Karuizawa ski bus accident, comprehensive measures to realize safe and secure charter bus operations have been drawn up, and measures will be promoted with follow-up to prevent accidents that result in the death or injury of passengers.

**F Measures based on proposals by the Committee for the Investigation of Accidents Involving Commercial Vehicles**

The Committee for the Investigation of Accidents Involving Commercial Vehicles will analyze the causes of serious accidents involving commercial vehicles that have a significant social impact, including further clarification of the organizational and structural problems behind the accidents, and recommend more objective and higher-quality measures to prevent any recurrence.

**G Promoting measures to prevent health-related accidents among drivers**

In order to prevent health-related accidents in which drivers are unable to continue driving due to illness, the “Health Management Manual for Drivers of Commercial Vehicles” will be widely publicized, the guidelines for countermeasures against major diseases such as sleep apnea syndrome, cerebrovascular diseases, and cardiac and macrovascular diseases will be thoroughly circulated, and the widespread use of screening tests will be encouraged.

H Thorough compliance by automobile-based transportation businesses

In order to enforce the Labor Standards Act (Act No. 49 of 1947) and other related laws and regulations, and to ensure thorough operations management, stringent audits will be conducted on businesses that have committed malicious violations such as drunk driving, businesses that have caused serious accidents, and businesses that have newly entered the market. Also, audits and supervision will be conducted jointly by relevant organizations, and inappropriate operators will be severely punished. In addition, IT will be used to conduct effective and efficient audits and supervision.

In order to ensure safety while responding to a wide variety of transportation needs, such as the Tokyo Olympic and Paralympic Games in 2021 and the Osaka-Kansai Expo in 2025, we will use on-street inspections, particularly at airport bus depots, to ascertain the actual conditions of bus operations, such as the assignment of shift drivers, driver alcohol consumption, and overwork, in order to prevent accidents involving commercial vehicles.

As part of the cooperation with the relevant administrative agencies, mutual liaison meetings will be held and a mutual reporting system used for the results of guidance and supervision, thereby ensuring the accurate operation of the reporting system for accidents caused by overworked drivers and the thorough implementation of industry guidance.

In terms of guidance by business associations and other related organizations, thorough guidance will be provided through the national government-designated organization for the implementation of proper operations. These will serve to ensure the safety of operations, including the prevention of overworked driving and overloading.

Emphasis will be placed on enhancing and strengthening the audit system to ensure the implementation of the above initiatives.

I Promoting safety evaluation projects for automobile-based transportation businesses, etc.

The National Motor Truck Transportation Business Rationalization Operation Implementing Agency will enable users to select freight forwarders with high safety standards, and promote the “Freight Vehicle Transportation Business Safety Assessment Project” (commonly known as the G-Mark System), which is being implemented to contribute to the improvement of overall safety of freight operators.

In addition, when the national government, local authorities, private organizations, etc., place orders for services involving freight vehicle transportation, they will take into account, from the viewpoint of promoting road traffic safety within the scope of their respective services, whether or not a business has been certified as a High-Safety Workplace (commonly known as G-Mark certified workplaces) and make efforts to actively choose such operators with the understanding of the parties concerned.

Furthermore, we will also promote the “Safety Evaluation and Certification System for Charter Bus Operators,” which by having the safety of charter bus operators and the status of their efforts to ensure safety evaluated, certified and announced by the Safety Evaluation and Certification Organization for Charter Bus Operators, makes it easier for charter bus users and travel agencies to select charter bus operators with higher safety standards. Efforts will also be made to provide safer charter bus services by conducting awareness-raising and initiatives aimed at ensuring safe practice by operators.

**(5) Preventing transportation-related occupational accidents, etc.**

A Preventing transportation-related occupational accidents

By ensuring that all employees are familiar with the Guidelines for the Prevention of Transportation-related Occupational Accidents, we will promote the establishment of management systems in workplaces, proper management of working hours, proper driving supervision, driver education, health management, and raise awareness of the prevention of transportation-related occupational accidents.

In addition, to ensure that these measures are effectively implemented, the government, in cooperation with relevant organizations, will promote the appointment of managers for the prevention of transportation-related occupational accidents at workplaces, the implementation of education for managers and drivers based on guidelines for the prevention of transportation-related occupational accidents, and the provision of individual guidance to workplaces.

B Optimizing the working conditions of drivers, etc.

In order to improve the working conditions of automobile drivers, such as working hours, holidays, extra pay, and the form of wages, supervisory guidance will be provided to ensure the implementation of the Labor Standards Act and other related laws and regulations, as well as the “Standards for Improvement of Working Hours, etc. of Automobile Drivers” (Public Notice of the Ministry of Labor No. 7, 1989).

In addition, the relevant administrative agencies will hold mutual liaison meetings and utilize the mutual reporting system for audit and supervision results, conducting joint audits and supervision as necessary.

**(6) Enhancing road traffic information**

A Enhancing the provision of transportation of dangerous goods, etc.

In order to prevent large-scale disasters caused by accidents during the transportation of dangerous goods, and to improve the provision of information that contributes to mitigating damage in the event of a disaster, guidance for carriers of dangerous goods will be stepped up with regard to the carrying of yellow cards (emergency contact cards containing necessary information in the event of an accident, such as the properties of dangerous and hazardous substances, emergency measures to be taken in the event of an accident, and emergency reporting and contact information), compliance with relevant laws and regulations, and the implementation of training for crew members.

In addition, in the event of a leak of dangerous goods due to a traffic accident involving a vehicle transporting them, the Dangerous goods Disaster Information Support System will be enhanced in order to handle the accident safely and promptly.

B Safety measures for land transportation of international shipping containers

In order to ensure safety when transporting international shipping containers on land, the “Guidelines for the Safe Transport of International Shipping Containers on Land,” which includes information on the items, weight, and packing of cargo contained in containers, and on the proper use of container locks, will be disseminated to all concerned parties through regional liaison conferences and related industries.

C Enhancing weather information, etc.

We appropriately identify natural phenomena such as typhoons, heavy rains, heavy snow, hazardous winds including tornadoes, earthquakes, tsunamis, and volcanic eruptions that will affect road traffic, and endeavor to issue Emergency warnings, Warnings, and forecasts timely and appropriately, and to disseminate the information quickly, as well as endeavor to make qualitative improvements to this information. In addition, we will promote the development of road information devices that collect information on snowfall and road surface conditions and provide it to road users.

Furthermore, observation facilities related to weather, earthquakes, tsunamis, volcanic



phenomena, etc. will be appropriately developed, installed, and maintained, and we will share information with disaster risk reduction related organizations, and will improve observation and monitoring systems using ICT. We also endeavor to spread meteorological knowledge through publicity activities and seminars, etc.

#### **4 Ensuring vehicle safety**

In recent years, there have been remarkable advances in automotive technology, and the development and practical application of various advanced safety technologies have made rapid progress. In a situation where most traffic accidents are caused by drivers violating traffic rules or making mistakes in driving, the use and widespread promotion of such technologies can be expected to dramatically reduce the number of traffic accidents. Although the number of accidents and fatalities and injuries have been decreasing due to the widespread use of collision damage mitigation brakes, the number of traffic accidents remains at a high level, and pressing issues are posed by the need to ensure the safety of children and the succession of accidents caused by elderly drivers. Therefore, it is essential to properly ensure traffic safety by further improving the performance of advanced safety technologies for both private and commercial vehicles and by promoting their widespread use.

Based on this understanding, it is necessary not only to evolve and develop measures to mitigate damage in the event of a collision, but also to further enhance preemptive measures to prevent accidents from occurring by further encouraging the widespread use and refinement of advanced safety technologies, including automated driving technologies.

However, the smooth and effective introduction of advanced safety technologies into society requires not only the establishment of standards to ensure a minimum level of safety, but also measures to ensure that drivers have an accurate understanding of their functions and use them correctly.

In addition, for those accidents that do unfortunately occur, damage mitigation measures involving the vehicle structure will be expanded, and measures to prevent the spread of damage, such as preventing vehicle fires and ensuring ease of escape from the vehicle after an accident, will also be promoted.

In promoting the widespread use of these vehicle safety measures, it is necessary not only to expand and strengthen safety regulations, but also to coordinate measures to promote the development of safe vehicles by automobile manufacturers and research institutes with measures encouraging users to choose safe vehicles, and to take appropriate measures at each stage from basic research to practical use and proliferation.

Further, as the introduction of advanced technologies makes the structure of automobiles ever more complex, proper maintenance and management to maintain their functions properly over the course of their use will be more important than ever. With regard to automated driving technology in particular, there is a high possibility that a malfunction will lead directly to an accident. Therefore, it is necessary to establish mechanisms and systems to properly maintain and manage the functions of automated driving technology, and appropriate measures must be taken in the automobile maintenance business and the automobile inspection system.

#### **[Priority Measures and New Measures in the 11th Plan]**

- Improving vehicle safety regulations, etc. ((1))
- Development of Japanese Industrial Standards for vehicle safety, etc. ((1) D)
- Promotion of safety measures and utilization of automated vehicles. ((2))
- Providing automobile assessment information, etc. ((3))
- Enhancing automobile servicing and maintenance ((4) C)
- Enhancing and strengthening the recall system ((5))

#### **(1) Improving vehicle safety regulations, etc.**

- A Enhancing and strengthening the Safety Regulations for Road Vehicles, etc.
  - (A) Promoting safety measures for vehicles

Vehicle safety measures will be implemented based on the results of deliberations by the Technical Safety Working Group of the Automobile Committee of the Land Transport Subcommittee of the Council for Transport Policy in FY 2020.

Specifically, a study group involving industry, academia, and government will play a central role in continuously implementing a series of steps (PDCA cycle), including (1) identification and analysis of actual accident conditions, (2) examination of policies and specific details of safety measures, and (3) assessment of effects before and afterwards. By enhancing the group's studies through this PDCA cycle, we will further expand and strengthen measures for vehicle safety.

In particular, in ascertaining and analyzing the actual conditions of accidents, we will consider making greater use of information from on-board recording devices such as drive recorders and event data recorders (EDR\*), in addition to the macro and micro data already available. In conjunction with this, we will also consider initiatives that will contribute to further progress, such as cooperating with medical facilities to obtain detailed information on the injury conditions of passengers, thereby conducting in-depth investigations of the mechanisms of the injuries caused by accidents.

In addition, as part of the series of procedures involved in the promotion of vehicle safety measures, consideration will be given to changes in social conditions, such as the further aging of the population, changes in the way vehicles are used, the state of development of new technologies, and trends in vehicle safety measures in other countries, and the results of these studies will be made public to ensure transparency.

As part of the efforts to promote preventive safety measures using advanced safety technologies to prevent accidents, we have worked to implement more comprehensive and effective coordination between the enhancement and strengthening of safety regulations, the promotion of development and widespread use of advanced safety vehicles (ASV\*), and the provision of automobile assessment information to users. However, we will continue to seek further cooperation in the future.

(B) Enhancing and strengthening the Safety Regulations for Road Vehicles

The Safety Regulations for Road Vehicles that specify safety requirements for vehicle structure and equipment, which are the basis of vehicle safety measures, will, taking into account the study results mentioned above, be expanded and strengthened from the following perspectives: preemptive safety measures to prevent accidents from occurring; seatbelts, airbags, and other damage mitigation measures to protect occupants, pedestrians and cyclists in the event of an accident; and measures to prevent damage spreading and causing secondary damage, such as the outbreak of fires after collisions involving electric vehicles.

In particular, in addition to measures to protect pedestrians and the elderly who account for a high percentage of fatalities, we will take measures to deal with various types of collisions, such as those that occur when turning right at intersections, and promote the development of advanced safety technologies to prevent traffic accidents. In so doing, we will actively look into promoting the development of safer vehicles and strive to ensure the safety of road traffic. Specifically, the following measures will be taken to improve the safety of automobiles and other vehicles: further enhancing automobiles' peripheral vision; strengthening safety measures for protecting pedestrians; improving the performance of automatic steering technology as a safe driving assist; collision damage mitigation brakes to be installed in large vehicles that cause particularly severe damage in collisions; further improving the safety of batteries and other components installed in electric vehicles and fuel cell vehicles; implementing safety measures for the various types of mobility that will emerge with the progress of

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\* EDR: Event Data Recorder

\* ASV: Advanced Safety Vehicle

technology.

**B Developing and promoting advanced safety vehicles (ASV)**

Under the ASV Promotion Study Group formed through a partnership of industry, academia, and government, measures will be taken to further promote the development and widespread use of advanced safety vehicles (ASV) equipped with systems that utilize advanced technologies to assist drivers in driving safely.

Since the primary responsibility for safe driving lies with the driver, efforts should be made to foster understanding of advanced technologies in order to prevent accidents caused by overconfidence or misunderstanding of advanced technologies on the part of drivers.

In addition, we will continue to promote the development and widespread use of advanced safety vehicles (ASVs) by upgrading the technical guidelines for advanced safety technologies linked to the use of communication technology and map information in consideration of technological progress and accident data.

**C Promoting safety measures that address the succession of accidents caused by elderly drivers**

In light of the spate of accidents caused by elderly drivers committing driving errors such as pedal misapplication, as well as the fact that the aging of the population will continue to drive the age of drivers upwards, vehicle safety measures such as improving the performance and promoting the widespread use of Safety Support Cars will be pursued for elderly drivers.

**D Development of Japanese Industrial Standards for vehicle safety, etc.**

The Japanese Industrial Standards for automobiles, which were established based on the Industrial Standardization Act (Act No. 185 of 1949), have traditionally been developed considering safety in terms of the hardware aspects of vehicles, but in light of recent technological progress, they are also being developed in terms of (1) vehicle control, (2) perception of external information, and (3) man-machine interface with the driver.

Japan is the world leader in the practical application of technologies that provide warnings and controls to assist drivers. The relevant ministries and agencies will work together to revise the Japanese Industrial Standards related to reducing driver workload, improving convenience, alerting drivers to danger, avoiding accidents and reducing damage. These include (1) distance control systems, (2) front-end vehicle collision warning systems, and (3) warnings of obstacles around the vehicle.

In addition, through the Japanese Industrial Standards Committee, which is Japan's representative body at the International Organization for Standardization (ISO\*), efforts will be made to harmonize the standards with international standards and to develop them in order to help prevent traffic accidents.

## **(2) Promotion of safety measures and utilization of automated vehicles**

Since most traffic accidents are caused by driver error, the practical application of automated driving, in addition to the use of advanced safety technologies, has the potential to make a dramatic contribution to improving traffic safety. On the other hand, since automated driving technology is still under development, we will promote both the use of automated vehicles and relevant safety measures for them.

**A Establishment of safety regulations for automated vehicles**

In March 2020, safety regulations for automated driving systems which are limited to lane keeping on congested expressways and cyber security were established. In response to further progress in automated driving technology, regulations for more advanced automated driving systems will be developed continuously.

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\* ISO: International Organization for Standardization

- B Promoting efforts to realize safe driverless automated driving mobility service vehicles  
 In order to achieve driverless automated driving mobility service vehicles that contribute to the mobility of the elderly and others in rural areas, initiatives such as field tests and the formulation of technical requirements will be conducted in order to ensure the safety of such vehicles.
- C Promoting efforts to prevent overconfidence and misunderstandings about automated vehicles  
 We will promote initiatives to ensure that users can use automated vehicles without overconfidence or misunderstanding, such as understanding the driving conditions under which automated driving functions operate.
- D Introducing electronic inspections for automated vehicles and accurate operation of the examination and licensing systems  
 Electronic inspections will be introduced to ensure the safety of automated vehicles throughout their entire lifecycle, from design and manufacture to use. In addition, type designation examination for automated vehicles will be conducted using simulations to verify their safety in various driving environments, and efforts will be made to ensure the proper operation of the permission system for software updates.
- E Investigating the causes of accidents involving automated vehicles and promoting efforts to prevent recurrence  
 Because there are various possible factors, such as the state of the automated driving system, the driving environment at the time, and the driver's response that may be relevant in accidents involving automated vehicles, such accidents will be investigated and analyzed in a comprehensive manner that ensures objectivity and accuracy, and efforts will be made to promptly determine the cause and prevent any recurrence.

**(3) Providing automobile assessment information, etc.**

We will promote an automobile assessment scheme which compiles general information on the correct use of automobile safety devices and the state of their equipment, as well as comparative information on the safety of different automobile models from a fair and neutral standpoint, and provides this information to automobile users on a regular basis. In addition, we will promote public understanding of advanced technologies related to automobile safety, such as ASV technologies, through the automobile assessment scheme and the publication of information to prevent overconfidence in and misunderstanding of advanced technologies. An integrated automobile assessment scale (from 1\* to 5\*) was introduced in 2020 in order to make the assessment results easier for users to understand, and we will make efforts to further publicize this. These initiatives will promote the widespread use of safer automobiles through the choices of automobile users, and at the same time, encourage the research and development of safer automobiles by automobile manufacturers.

Specifically, for preventive safety performance assessments, test items such as brakes for mitigating collision damage to bicycles (bicycle AEBS\*) and brakes for mitigating collision damage at intersections (intersection AEBS) will be expanded. For collision safety performance assessments, new test and evaluation methods will be explored based on the circumstances of accidents and the evolution and advancement of technology, such as frontal collision tests that are more in line with actual accident conditions.

As for child seats, in addition to promoting and raising awareness of i-Size-compliant seats and exploring a strengthening of the safety performance assessments, we will also promote the wider use of safer seats by ensuring that comparative information on the safety of each product is correctly distributed to automobile users who need it, for example, through obstetrics and gynecology departments and local government offices.

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\* AEBS: Advanced Emergency Braking System

#### **(4) Enhancing automobile inspection, servicing and maintenance**

##### **A Enhancing automobile inspections**

In order to maintain the functions of advanced technologies such as collision damage mitigation brakes, which have been rapidly gaining popularity in recent years, inspections will be enhanced to include, in addition to the current inspection focusing on external appearance and measuring instruments such as brake testers, function tests based on defect information recorded in vehicles' On-Board Diagnosis (OBD<sup>\*</sup>). Furthermore, in cooperation with the National Agency for Automobile and Land Transport Technology, we will endeavor to ensure that these inspections are carried out by designated maintenance garages. In addition, in order to prevent unauthorized modification, site inspections of vehicle operators will be conducted as appropriate, and the street inspection system will be enhanced and strengthened to remove poorly maintained or non-compliant vehicles, including those with illegal modifications.

Guidance and supervision of business operators will be reinforced in order to ensure proper operation and use of the designation system for motor vehicle maintenance garages. Moreover, the inspection system for light vehicles at the Light Motor Vehicle Inspection Organization will be enhanced and strengthened.

##### **B Enhancing the type designation system**

In order to prevent accidents attributable to the structure of a vehicle, the system for examining the safety of new vehicles will be enhanced through the type designation system, for example, by using simulations to verify safety under various driving environment conditions when examining automated vehicles.

##### **C Enhancing automobile servicing and maintenance**

###### **(A) Promoting servicing and maintenance**

In order to raise the awareness of upkeep among automobile users and to ensure that servicing and maintenance are carried out, the "Motor Vehicle Check and Maintenance Promotion Campaign" will be rolled out nationwide with the cooperation of related parties, thereby promoting thorough upkeep by automobile users.

In addition, in order to ensure the safety of commercial vehicles owned by automobile-based transportation businesses, guidance on vehicle maintenance and management should be given to the relevant parties at every opportunity, such as audits of automobile-based transportation businesses and seminars to maintenance managers to promote their reliable implementation.

Efforts will be made to understand and investigate the causes of accidents caused by vehicle malfunctions, and to thoroughly prevent any recurrence by providing information on servicing and maintenance methods.

###### **(B) Elimination of illegally modified vehicles**

In order to ensure the safe operation of automobiles, a "Campaign to Eliminate Illegally Modified Vehicles," such as those used by motorcycle gangs and those modified for the purpose of overloading, which have become a social problem and pose a danger to road traffic, will be rolled out nationwide with the support of relevant organizations and the cooperation of automobile-related organizations. Publicity activities, guidance to related parties, and on-street inspections will be stepped up to raise awareness among automobile users and automobile-related businesses of the need to prevent illegal modifications.

In addition, efforts will be made to ensure that the prohibition of illegal modifications and the repair order system for vehicles with illegal modifications are properly implemented.

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\* OBD: On-Board Diagnostics

(C) Improving the suitability and productivity of certified maintenance garages

In order to gain the understanding and trust of automobile users for servicing and maintenance, we will instruct certified maintenance garages to ensure that the fees and content of their services are reasonable, including from the viewpoint of consumer protection. In addition, support will be provided for improvements to business management and productivity of certified maintenance garages.

(D) Improvement of maintenance techniques, including support for new automobile technologies

In response to the changes in the environment of the automobile society, such as the adoption and proliferation of new automobile technologies and the diversification of user needs, it is necessary for the automobile maintenance industry to respond to these changes in order to properly maintain and manage automobiles. As such, the current status of the automobile maintenance industry will be ascertained through hearings with related organizations, and improvements to the industry's environment and techniques will be pursued.

In addition, we will improve the skills of maintenance personnel by providing training for chief mechanics in response to new technologies, as well as promoting use of the first-class automobile mechanic system, thereby meeting the need for the maintenance of automobiles that use new technologies and explanations to users about their proper use.

(E) Strengthening measures against fraudulent vehicle inspections and other violations

Although the designation system for motor vehicle maintenance garages was established in order to make use of the private sector's capabilities, violations such as fraudulent vehicle inspections still occur. Therefore, in order to ensure the proper operation and utilization of the system, we will continue to provide guidance and supervision to business operators.

**(5) Improving and reinforcing the recall system**

With the increasing standardization and modularization of equipment across automobile manufacturers, large-scale recalls are being carried out by multiple automobile manufacturers. To ensure faster and more reliable implementation of automobile recalls, we will strengthen the system for collecting information from automobile manufacturers, etc., and the National Agency for Automobile and Land Transport Technology will conduct technical verification of automobiles with questionable safety and environmental features by checking the vehicles themselves.

In addition, in order to implement recalls from the standpoint of automobile users, we will promote the collection of defect information from automobile users and enhance the provision of recall-related and related information to increase awareness of automobile defects among users.

**(6) Ensuring the safety of bicycles**

In order to ensure the safe use of bicycles and to prevent bicycle accidents, the type approval system for bicycles with drive assist devices (those that use a motor to supplement human power) and ordinary bicycles shall be administered appropriately. It is important to create a climate in which bicyclists regularly receive guidance on inspection, maintenance, and proper use of bicycles. In recent years, there have been cases of substantial compensation paid in relation to accidents in which bicycles are the injuring party. In order to secure the resources for payment in the event of such liability and to provide adequate relief to victims, the government will promote enrolment in liability insurance in cooperation with related businesses. In addition, in order to prevent accidents involving bicycles during dusk and at

night, we will work to improve bicycle visibility by ensuring that lights are turned on and by promoting the use of reflective materials and equipment.



## **5 Maintaining road traffic order**

In order to prevent traffic accidents caused by disregard for traffic rules, it is necessary to maintain road traffic order through traffic supervision and enforcement, investigation of traffic accidents, and countermeasures against motorcycle gangs.

To this end, traffic supervision and enforcement to deter traffic accidents will be carried out based on accurate analyses of the actual circumstances of traffic accidents, focusing on highly malicious and dangerous violations that directly lead to serious accidents such as fatalities, as well as highly troublesome violations such as parking violations.

In addition, when traffic accidents occur, investigations will be conducted systematically from the initial stages, and thorough investigations will be conducted with a view to establishing a case for Dangerous Driving Causing Death or Injury. In addition, appropriate and detailed investigations will be further promoted by using training and similar programs to strengthen investigative capabilities and investigate the causes of accidents based on objective evidence.

Furthermore, in order to conduct aggressive countermeasures against motorcycle gangs, relevant organizations and groups will work together to raise awareness of the need to eliminate such gangs, promote the creation of an environment that does not allow motorcycle gangs to engage in violent behavior, and to enhance the enforcement system and the equipment it requires.

### **[Priority Measures and New Measures in the 11th Plan]**

- Promoting traffic supervision and enforcement that helps deter traffic accidents ((1) A (A))
- Pursuit of underlying liability ((1) A (B))
- Promoting supervision and enforcement concerning cyclists ((1) A (C))
- Further promoting appropriate and detailed investigation of traffic accidents, etc. ((2))
- Promoting measures against motorcycle gangs ((3))

### **(1) Strengthening traffic supervision and enforcement, etc.**

A Strengthening effective traffic supervision and enforcement on general roads, etc.

We will promote effective traffic supervision and enforcement on general roads, with an emphasis on preventing accidents involving pedestrians and cyclists, and on preventing serious accidents on routes where accidents frequently occur.

In doing so, we will give due consideration to the actual status of traffic accidents in the local area and local characteristics regarding violations, etc.

(A) Promoting traffic supervision and enforcement that helps deter traffic accidents

Taking the results of traffic accident analysis as a basis, we will work to strengthen traffic supervision activities on routes with frequent accidents. We will also promote traffic supervision and enforcement with an emphasis on highly malicious and dangerous violations that directly lead to traffic accidents, such as unlicensed driving, drunk driving, obstructive driving, speeding, and intersection-related violations, as well as on highly troublesome violations that are frequently reported by the public.

Particular efforts will be made to eradicate drunk driving and driving without a license by removing habitual offenders from the road through enforcement, and by thoroughly investigating not only the driver but also those around them. In addition, we will continue to promote traffic supervision and enforcement from the perspective of protecting children, the elderly, and people with disabilities.

Furthermore, the “PDCA cycle” will be further enhanced using more sophisticated analysis of traffic accidents based on geographic and other information, analyzing the actual circumstances of traffic accidents with regard to traffic supervision and

enforcement, and reflecting the results of this in reviews of enforcement plans. In addition, to ensure that speed limit enforcement can be carried out even on roads where it is difficult to secure enforcement sites or at times when it is difficult to deploy police officers, efforts will be made to research, develop, and provide materials and equipment for more effective enforcement, such as the nationwide development and deployment of portable automatic speeding control devices and studies on the creation of traffic violation tickets using data terminals.

(B) Pursuit of underlying liability

We will prevent violations such as overloading and overworked driving committed in the course of business activities by thoroughly holding vehicle operators accountable, issuing vehicle restriction orders and recurrence prevention orders to freight owners as necessary, providing guidance and supervisory measures to those who are found to be responsible behind the violations. If it is revealed that an operator bears underlying liability for a violation, guidance and supervisory action will be taken against them to prevent this type of violation.

(C) Promoting traffic guidance and enforcement concerning bicycle riders

Proactive guidance and warnings will be given to cyclists who do not turn on their lights, ride with two people on the bicycle, ignore traffic signals, or fail to stop when required, and arrests will be made for malicious and dangerous traffic violations.

B Strengthening traffic supervision and enforcement on expressways, etc.

On expressways, not only major violations, but also minor violations may directly lead to major accidents. Therefore, in order to prevent violations and regulate traffic flow, we will strive to improve the traffic supervision and enforcement system, and conduct effective mobile patrols in line with actual traffic conditions, such as traffic flow and the incidence of traffic accidents.

In addition, since enforcement of speeding on expressways is always dangerous, the active and effective use of enforcement equipment such as automatic speeding control devices will be promoted from the viewpoint of preventing accidents resulting in injury.

Moreover, traffic guidance and enforcement will focus on violations that are highly malicious, dangerous, and troublesome, and enforcement will be particularly tightened for such violations as speeding, drunk driving, obstructive driving, failure to maintain a safe distance, and lane violations.

**(2) Further promoting appropriate and detailed investigation of traffic accidents, etc.**

A Ensuring thorough investigations to establish a case for Dangerous Driving Causing Death or Injury

When investigating traffic accidents, etc., thorough investigations should be conducted from the initial investigation stage with a view to establishing a case under Article 2 or 3 (Dangerous Driving Causing Death or Injury) of the Act on Punishment of Acts Inflicting Death or Injury on Others by Driving a Motor Vehicle, etc. (Act No. 86 of 2013, hereinafter referred to as the “Vehicle Death and Injury Punishment Act”).

B Strengthening investigative capabilities for traffic accidents, etc.

In order to improve the investigation for traffic accidents, etc., efforts will be made to enhance the investigation system and further improve the investigative capabilities of investigators through training.

C Promoting scientific investigation of traffic accidents, etc.

We will promote scientific investigations of traffic accident cases based on objective evidence by improving the provision of equipment and materials that support scientific investigations, such as 3D laser scanners and investigation support systems that contribute to the identification of suspect vehicles in hit-and-run cases.

### **(3) Promoting measures against motorcycle gangs**

- A Raising awareness of the need to eliminate motorcycle gangs and improving guidance for young people at home and school

We will conduct proactive publicity activities to foster the public will to eliminate motorcycle gangs, such as by providing materials to the press and other media to accurately convey the actual situation regarding such gangs. In addition, guidance will be provided to young people in their homes, schools, workplaces, communities, etc., such as by holding classes aimed at preventing motorcycle gang membership. Given the relationship between the problem of motorcycle gangs and problematic behaviors such as juvenile delinquency, measures will be implemented from the perspective of promoting young people's sound development, including cooperation with relevant organizations in the community.

- B Creating an environment to prevent motorcycle gang activity

We will ask for the cooperation of managers of facilities that are likely to be used as gathering places for motorcycle gangs, etc. (motorcycle gangs and vintage motorcycle clubs (those who drive old motorcycles, etc. remodeled to resemble those of motorcycle gangs) that engage in illegal behavior) and the crowds that accompany them, and promote the creation of an environment, including improved management of facilities, that will prevent motorcycle gangs, etc. and crowds from gathering. Related organizations and groups in local communities will also work together more closely to create an environment that does not permit reckless vehicle use.

In addition, we will endeavor to obtain information in advance, and if there is a risk of a situation developing into a joint unlawful act, measures should be taken to isolate the motorcycle gangs and crowds at an early stage.

- C Promoting guidance and enforcement concerning motorcycle gangs, etc.

In addition to improving the system and equipment for enforcing control of motorcycle gangs, various laws and regulations, including the Prohibition on Dangerous Joint Activities, will be applied to reckless vehicle use in groups, loud engine noise, and other malicious crimes, with thorough arrests and correctional guidance to be carried out accordingly. Furthermore, guidance and enforcement against motorcycle gangs will be conducted by actively instructing them to disperse.

Meanwhile, in order to deal with wide-area incidents of reckless vehicle use promptly and efficiently that span multiple prefectures, cooperation in investigations among the prefectures involved will be actively undertaken.

Efforts will be made to thoroughly ascertain the situation regarding vintage motorcycle clubs that engage in illegal activities, share the information gathered among the prefectures concerned, and promote enforcement against noise-related violations and illegal modifications.

In addition, through means such as the "Campaign to Eliminate Illegally Modified Vehicles," enforcement will be conducted against illegally modified vehicles using on-street inspections, and in addition to seizing illegally modified vehicles, the government will work to separate motorcycle gangs from their vehicles by encouraging the judicial authorities to take measures to confiscate them, as well as pursuing underlying liability for those who assist reckless vehicle use, such as by making illegal modifications.

- D Preventing recidivism among motorcycle gang-related offenders

When investigating motorcycle gang-related crimes, efforts will be made to prevent recidivism among motorcycle gang-related offenders, such as by disbanding the gang or having members leave the gang, identifying not only individual criminal offenses but also the actual situation regarding the gang and the various circumstances behind each suspect's delinquency, such as their behavior, character, and environment. In addition,

those who are involved with organized crime groups should be identified and be firmly instructed to disassociate.

In handling probation for those involved in motorcycle gangs, efforts shall be made to provide treatment that focuses on the prevention of recidivism, such as fostering a law-abiding spirit, adjusting the family environment, improving friendships, and separation from the motorcycle gang organization.

In addition, license penalties for reckless vehicle use will be implemented promptly and severely.

E Preventing of illegal modifications of vehicles

To prevent illegal modifications to vehicles that encourage reckless vehicle use, and to prevent parts that do not conform to the Safety Regulations for Road Vehicles being used for illegal modifications, the government will actively promote nationwide publicity activities and provide guidance to companies and related organizations through means such as the "Campaign to Eliminate Illegally Modified Vehicles."

In addition, on-site inspections will be conducted at business premises as necessary, not only for vehicle users but also for those who have made illegal modifications, etc.

## **6 Enhancing rescue and emergency services systems**

In order to save the lives of those injured in traffic accidents and to minimize the damage incurred, a rescue and emergency service systems and emergency medical care system will be developed to respond immediately to traffic accidents on roads, including expressways, while ensuring close coordination and cooperation among emergency medical facilities, fire departments, and other related organizations. In particular, from a perspective of further improving the lifesaving rate and effectiveness of saving the lives of the injured, we will establish a system to ensure that doctors, nurses, emergency medical technicians(EMTs), and ambulance team members provide emergency medical care and first aid as soon as possible at the scene of an accident or during the transportation process, as well as promoting the development of a system for emergency calls from the scenes of accidents and the widespread use of first aid by bystanders.

### **[Priority Measures and New Measures in the 11th Plan]**

- Enhancing the rescue and emergency service systems in the event of mass casualty incidents ((1) A)
- Promoting activities to raise awareness of first aid, including cardiopulmonary resuscitation and the use of automated external defibrillators (AEDs) ((1) C)
- Promoting the training and deployment of EMTs ((1) D)
- Establishing an on-the-scene rapid response support system ((1) I)
- Establishing an emergency call system and automatic accident report system ((1) G)
- Promoting air ambulance operators ((2)C)

### **(1) Developing the rescue and emergency service system**

#### **A Enhancing the rescue system**

In order to cope with the increasing complexity and diversity of traffic accidents, the rescue system will be improved and expanded to ensure the smooth performance of rescue activities.

#### **B Enhancing rescue and emergency service systems in the event of large numbers of injuries**

In order to cope with major road traffic accidents and other major accidents that result in a large number of injured, a communication system will be established, rescue drills will be conducted, and rescue and emergency service systems will be enhanced through cooperation between fire departments and medical facilities.

#### **C Promoting activities to raise awareness of first aid, including cardiopulmonary resuscitation and the use of automated external defibrillators (AEDs)\***

First aid provided by bystanders at the scene can be expected to improve life-saving outcomes. Therefore, first aid, including the use of automated external defibrillators (AEDs), should be promoted through seminars and other educational activities conducted by fire departments and other bodies.

As such, we will work to disseminate knowledge and practical skills of first aid such as CPR, with related organizations such as fire departments, public health centers, medical facilities, the Japanese Red Cross Society, and private organizations preparing and distributing instructional materials and holding seminars. We will also actively conduct publicity and awareness-raising activities through opportunities such as First Aid Day and Emergency Medical Services Week. In addition, we will actively train first aid instructors and promote the provision of verbal first aid instructions when receiving emergency calls. Furthermore, efforts will be made to widely disseminate information on emergency first

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\* AED: Automated External Defibrillator

aid at driving schools and the training courses taken when acquiring or renewing a driver's license. Similar efforts will be made to teach those involved in traffic safety instruction, safe driving supervisors, and drivers of commercial vehicles who are likely to encounter traffic accidents.

In addition, we will promote the installation of first aid equipment such as rubber gloves, tourniquets, bandages, etc. in commercial vehicles.

At schools, meanwhile, we will improve leadership and practical skills by holding practical training on CPR (including the use of AEDs) and various seminars for teachers and staff. Measures will also be taken to enhance instruction on first aid such as methods for stopping bleeding, bandaging, and CPR (including the use of AEDs) in health and physical education at junior high schools and high schools.

**D Promoting the development and deployment of emergency medical technicians**

In order to enhance pre-hospital care (first aid at the scene of an emergency and during transport), we will promote the training of EMTs so that they can be systematically assigned to fire departments nationwide, and implement training and practical classes so that EMTs can smoothly perform specific tasks such as tracheal intubation, drug administration, and transfusion. In addition, medical control systems will be enhanced to ensure the quality of first aid treatment by paramedics, including EMTs, under the instruction, supervision, or guidance of physicians.

**E Enhancing deployment of rescue and emergency equipment**

In addition to enhancing the deployment of rescue vehicles and the equipment and materials necessary for traffic rescue activities, measures will be taken to step up the provision of advanced emergency vehicles, equipment, and materials so that EMTs and other responder can provide more advanced emergency lifesaving treatment. Furthermore, the installation of emergency access points in expressways will be promoted in order to improve access to emergency medical facilities.

**F Promoting emergency services using firefighting and disaster prevention helicopters**

Helicopters are effective in assessing the situation of an accident, transporting the injured, and dispatching doctors to the scene quickly. As such, we will promote the active use of helicopters in emergency services, including a complementary system with air ambulances.

**G Enhancing education and training for rescue and ambulance team members**

We will improve the knowledge and skills of rescue and ambulance team members by promoting continuous education and training so that they can respond to increasingly complex and diverse rescue and emergency situations.

**H Developing the emergency service system on expressways, etc.**

In addition to East Nippon Expressway Company Limited, Central Nippon Expressway Company Limited, and West Nippon Expressway Company Limited (collectively referred to hereinafter as "Expressway Companies") handling emergency services on expressways as an independent service integrated with road traffic management, municipalities along the route will also handle emergency services in accordance with the provisions of the Fire Service Act (Act No. 186 of 1948). The two parties will work in mutual cooperation to provide appropriate and efficient lifesaving services.

To this end, cooperation between the municipalities concerned and the Expressway Companies will be strengthened, and the Expressway Companies will take financial measures for municipalities where interchanges located outside the independent emergency service zone are located. The municipalities concerned will also be encouraged to improve their emergency service implementation systems.

In addition, on the Honshu-Shikoku Expressway (Seto Chuo Expressway and Kobe Awaji Naruto Expressway), the Honshu-Shikoku Expressway Company will take similar financial measures to the cities concerned for emergency services, and these cities will also undertake the development of implementation systems that will allow them to take all

possible measures for emergency services.

Furthermore, the Expressway Companies, the Honshu-Shikoku Expressway Company and related municipalities will promote the development of facilities necessary for emergency services and the implementation of education and training for employees.

I Establishing an on-the-scene rapid response support system

In order to reduce the response time before emergency vehicles arrive at the scene and to prevent traffic accidents during emergency driving, we will work to develop an on-the-scene rapid response support system (FAST\*) that controls traffic signals, with priority given to emergency vehicles.

J Establishing an emergency call system and automatic accident report system

In order to facilitate the early and accurate rescue of injured persons and the prompt handling of traffic accidents and other emergencies, the necessary environment should be developed to promote the widespread use and improvement of the emergency reporting system (HELP\*) and the automatic accident notification system (ACN). By utilizing GPS technology that uses satellites to determine location, technology that displays the location on a map, and technology that helps evaluate the severity of injuries, when accidents occur while riding in a car, these systems automatically notify the location of the accident and accident information through in-vehicle devices and cell phones so that the information can be displayed on the map screen at the communication control rooms of fire departments, police departments, etc., thereby enabling emergency vehicles to quickly rush to the scene.

## **(2) Developing an emergency medical system**

A Installing of emergency medical facilities, etc.

We will promote the development of primary emergency medical facilities, such as emergency centers open during the night and on holidays. In addition, in order to secure a medical treatment system for emergency patients who require hospitalization and cannot be treated by the primary emergency medical treatment system, we will designate emergency medical treatment system areas and develop a secondary emergency medical treatment system based on the actual situation of medical facilities in each area. Furthermore, as a tertiary emergency medical treatment system, we will promote the development of a 24-hour emergency medical center with diagnostic capabilities for serious emergency patients who are in critical condition and require multiple departments. By means of assessment schemes, we will improve the quality of the center, including its trauma treatment capability.

Furthermore, efforts will be made to develop and enhance emergency medical information centers that will coordinate the effective operation of these systems by collecting information on emergency medical facilities and providing emergency medical information.

In addition, from the viewpoint of protecting victims of automobile accidents, efforts will be made to enhance emergency medical equipment at emergency medical facilities that receive many emergency patients from automobile accidents.

B Training of doctors and nurses in charge of emergency medical care, etc.

In order to secure physicians engaged in emergency medicine, efforts will be made to enhance education and training relating to emergency medicine in physicians' pre-graduate education and clinical training. In addition, we will work to secure emergency medical personnel and improve their qualifications by providing training for doctors engaged in emergency medical care at emergency centers, etc., thereby further improving

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\* FAST: Fast Emergency Vehicle Preemption Systems

\* HELP: Help system for Emergency Life saving and Public safety

the lifesaving rate for emergency patients in the area.

As well as striving to improve education on emergency medical care in training courses for nurses, enabling them reliably assist doctors in emergency situations, efforts will also be made to secure nurses who will be in charge of emergency medical care by improving emergency medical care training for new trainees.

Furthermore, from the perspective of enhancing emergency operations both inside and outside the hospital, we will promote improved training on standard initial response skills for trauma.

C Promoting helicopters for doctors

In order to improve the lifesaving rate for patients injured in traffic accidents, etc., and to alleviate the aftereffects of such accidents, we will deploy air ambulances that can transport patients while providing lifesaving medical care with a doctor on board, developing the system in accordance with local conditions.

**(3) Securing cooperative relationships with emergency-related organizations, etc.**

In order to ensure rapid and smooth admission to emergency medical facilities, we will promote close coordination and cooperation between these facilities, fire departments, and other related organizations, as well as working to clarify the admission and communication systems within emergency medical facilities.

In addition, in order to improve the live-saving outcomes for emergency patients by having doctors, nurses, etc. provide life-saving medical care at the scene of an accident or during transportation, we will, in accordance with local conditions, promote the development of a system of ambulances with doctors on board. In order to ensure that doctors' decisions can be directly conveyed to the scene of an emergency, an effective emergency service system will be developed through mutual cooperation between medical facilities and fire departments. This will include a system (hotline) for direct communication with doctors via car phones or cell phones installed in ambulances, and devices that transmit data on the condition of patients to medical facilities.

These will be used not just for road traffic, but for major accidents in all fields of transportation.



## **7 Promoting victim support, including the appropriate compensation system**

Traffic accident victims have undergone deep sorrow and painful experiences, such as suffering a great deal of physical, mental, and economic injury, or having their irreplaceable lives cut short, as a result of these accidents. Since it is extremely important to provide support for such victims, measures for victims of traffic accidents will be comprehensively and systematically promoted under the Basic Act for Crime Victims (Act No. 161 of 2004) and other relevant laws.

The Automobile Liability Insurance Act (Act No. 97 of 1955) strengthens the liability of the perpetrator for damages in the event of a traffic accident caused by the operation of an automobile, and in order to ensure the performance of these damages, in principle, requires all automobiles to conclude a contract for automobile liability insurance (mutual aid). In addition, the government has been taking measures to protect and provide relief to victims of automobile accidents by optimizing the insurance (mutual aid) payments made by insurance companies (associations), and by using the automobile damage compensation insurance scheme to provide relief to victims of accidents caused by hit-and-runs and uninsured (uninsured) vehicles, as well as by using a portion of the accumulated investment profits from the abolition of the government reinsurance system at the end of FY 2001 as a fund to carry out victim relief measures and other projects. As such, we are taking measures to protect and help victims of automobile accidents, and will continue to take measures to further enhance the protection of victims. In particular, since the number of people left with severe disabilities due to traffic accidents remains at a high level, the government will continue to improve relief measures for such persons.

In addition, in recent years, there have been cases of substantial compensation paid in relation to accidents in which bicycles are the injuring party. In order to secure the resources for payment in the event of such liability and to provide adequate relief to victims, the government will speed up enrolment in liability insurance in cooperation with related businesses.

Furthermore, since victims of traffic accidents are often severely mentally traumatized and lack knowledge and information about traffic accidents, opportunities to receive consultations on traffic accidents will be enhanced, and general information on traffic accidents and the progress of investigations will be provided, with support for victims actively promoted.

### **[Priority Measures and New Measures in the 11th Plan]**

- Strengthening support for claims for damages ((2) B)
- Enhancing assistance measures for car accident victims ((3) A)
- Promoting measures that take the feelings of traffic accident victims into consideration ((3) A)

### **(1) Enhancing the automobile damages compensation system, etc.**

The automobile damage compensation system, which plays a central role in the relief measures for victims of automobile accidents, will continue to be improved in response to changes in the socioeconomic situation and the incidence of traffic accidents in order to enhance the relief for victims.

#### **A Optimizing automobile liability insurance (mutual aid)**

We will promote proper payment of insurance (mutual aid) benefits through guidance to insurance companies (associations) regarding thorough provision of appropriate information to victims, and mediation of disputes regarding payment of insurance (mutual aid) benefits by designated dispute resolution bodies.

#### **B Proper operation of the government's automobile damage compensation insurance**

scheme

We will continue to work on the proper operation of the government's automobile damage compensation insurance program in terms of providing relief to victims of hit-and-run accidents and accidents involving uninsured vehicles that are not covered by compulsory automobile liability insurance.

C Ensuring thorough measures against uninsured vehicles

In addition to widely informing the public through publicity activities, etc., of the need to be careful not to let automobile liability insurance (mutual aid insurance) expire or forget to apply for it, we will also promote cautionary activities such as monitoring on the streets to thoroughly prevent the operation of uninsured vehicles.

D Enhancing voluntary automobile insurance (automobile mutual aid), etc.

Voluntary automobile insurance (automobile mutual aid), which plays an important role along with compulsory automobile liability insurance, has been diversified in terms of coverage, amount, and services under free competition, and plays a significant role in providing relief to victims of traffic accidents. However, we will continue to provide guidance to improve the system and ensure a stable supply, thereby helping enhance relief for victims.

**(2) Assistance for claims for damages, etc.**

A Promotion of traffic accident consultation activities

We will promote traffic accident counseling activities in the community by making use of traffic accident counseling offices operated by local authorities.

(A) In order to ensure smooth and appropriate consultations at traffic accident consultation offices, etc., these offices shall liaise and cooperate with the Japan Federation of Bar Associations Traffic Accident Consultation Center, the Traffic Accident Dispute Resolution Center, and other relevant organizations and groups such as private groups for crime victim support.

(B) In addition to promoting consultation services that take into consideration the feelings of victims of traffic accidents, we will use training to improve counselors' skills to deal with increasingly complex and wide-ranging consultations.

(C) In addition to conducting various publicity activities at traffic accident consultation offices, etc., we will make our traffic accident consultation activities known to the public through active use of the websites and publicity magazines of local governments, providing a wide range of consultation opportunities to those involved in traffic accidents.

(D) The system at the Japan Federation of Bar Associations Traffic Accident Counseling Center will be enhanced so that victims can receive legal counseling and settlement arrangements regarding automobile accidents from lawyers free of charge.

B Strengthening support for claims for damages

The police will actively promote education regarding relief systems and traffic accident consultation activities in order to help provide appropriate and prompt relief to victims of traffic accidents. In addition, the human rights bodies of the Ministry of Justice will handle human rights counseling regarding traffic accidents, while the Japan Legal Support Center, the Traffic Accident Dispute Resolution Center, the Traffic Safety Activity Promotion Center, and the Japan Federation of Bar Associations Traffic Accident Consultation Center will enhance their services for counseling and assistance regarding claims for damages from traffic accidents.

**(3) Enhancing and strengthening support for traffic accident victims, etc.**

A Enhancing assistance measures for automobile accident victims, etc.

- (A) Promoting the lending of living funds to orphans of traffic accidents by the National Agency for Automotive Safety & Victims' Aid
- (B) The National Agency for Automotive Safety & Victims' Aid will promote the establishment and operation of medical treatment facilities specializing in the treatment and nursing of victims who have suffered severe permanent disabilities (persistent vegetative state) as a result of automobile accidents, and efforts to secure opportunities for the rehabilitation of victims who have suffered permanent disabilities as a result of automobile accidents.
- (C) The National Agency for Automotive Safety & Victims' Aid will promote the provision of long-term care fees to victims who have suffered severe aftereffects due to a car accident, as well as the designated maintenance and cost subsidies for cooperating hospitals and facilities in relation to short-term hospitalization and admission.
- (D) The National Agency for Automotive Safety & Victims' Aid will enhance and strengthen consultations and information provision services for recipients of nursing care fees.
- (E) Assistance will be provided to ensure that the Foundation for Orphans from Automobile Accidents provides a certain level of nurturing benefits to orphans of traffic accidents on a long-term and stable basis.
- (F) We will promote the development of an environment for caregivers of persons with disabilities caused by automobile accidents who are recuperating at home, in case it becomes difficult to care for them for various reasons ("after the caregiver is gone").
- (G) We will promote the understanding of various social resources related to victims of automobile accidents and their living conditions, and conduct research and research aimed at implementing necessary support measures.

**B** Promoting measures that take the feelings of traffic accident victims into consideration  
 In order to enhance support for victims of traffic accidents, we will promote measures such as support for the activities of self-help groups.

The Traffic Division of police stations, the Traffic Safety Activity Promotion Center, and the Victim Support Staff of the Public Prosecutor's Office will promote consultation services that take into consideration the feelings of victims of traffic accidents, and will cooperate with related organizations, as well as with private support groups for victims of crime.

The police will provide victims of traffic accidents with general information on traffic accidents, the progress of investigations, as well as drawing up and using the "Victims' Guides," which summarize the process of criminal procedures, etc. In particular, for victims of serious traffic accidents, such as hit-and-run cases and traffic fatalities, the Victim Liaison System, which informs them of suspects' arrests and referral status, will be enhanced. In addition, appropriate information will be provided in response to inquiries from victims of fatal accidents regarding the date of hearing on administrative measures against the offender and the results thereof.

Moreover, the Victim Liaison and Coordination Officers assigned to the Traffic Investigation Section of each prefectural police headquarters will provide guidance on victim liaison services at each police station, as well as performing victim liaison services themselves in order to ensure a systematic response and that staff members pay attention to victims' feelings.

The Public Prosecutor's Office, penal institutions, probation offices, etc. will work together to provide victims of traffic accidents, with information on the results of the disposition of the case, the date of the trial, the results of the trial, and how the offender is being dealt with through the Victim Notification Scheme. In addition, with regard to the non-prosecution of cases, the public prosecutor shall, in accordance with the wishes of the traffic accident victims, endeavor to provide sufficient explanation of the nature of the disposition and the reasons behind it, either in advance or after the disposition, while

taking the influence to the investigation into consideration.

For certain crimes, including violations of the Vehicle Death and Injury Punishment Act, when a victim or their bereaved family requests participation, and the court approves, they may attend the trial as a “victim participant” under the “Victim Participation System.” The Public Prosecutor’s Office will strive for the appropriate operation of this system and will properly inform victims about the “System for Payment of Travel Expenses for Victim Participation.”

In addition, the Public Prosecutor’s Office will assign victim support staff to respond to various consultations from victims of traffic accidents, guide and accompany them to court, assist them in various procedures at the Public Prosecutor’s Office, and introduce them to related organizations and groups that provide psychological, lifestyle, and financial support in accordance with their circumstances.

At probation offices nationwide, crime victim affairs officials and crime victim affairs volunteer probation officers will be assigned to provide consultations to traffic accident victims, assist them in various procedures of measures for crime victims in offenders rehabilitation, introduce them to the necessary related organizations, and promote measures that take into consideration their sentiments.

In addition, as part of various training programs for public prosecutor staff, lectures will be given by academic experts who are involved in crime victim support, and individual guidance will be given by supervisors during daily work. These initiatives aim to promote understanding of the mental state of traffic accident victims and to promote measures that take into consideration their feelings. Training programs for the staff of the Offenders Rehabilitation Offices will also include lectures from traffic accident victims and people from victim support groups, thereby instilling a deeper understanding of the current situation and feelings of traffic accident victims.

#### C Support for victims of public transportation accidents

In order to secure support for victims of public transportation accidents, the Public Transportation Accident Victim Support Office established by the Ministry of Land, Infrastructure, Transport and Tourism will be responsible for (1) providing information in the event of a public transport accident, and (2) coordinating with victims over the medium to long term, from the time of the accident until they are able to lead a peaceful life again (e.g., responding to consultations from victims regarding mental and physical care and referring them to specialists). We will continue to steadily promote efforts to support victims of public transport accidents, such as building networks with related external organizations, holding forums to support victims of public transport accidents, and promoting the preparation of support plans for victims by public transport operators, while receiving advice from related parties.

## **8 Enhancing R&D and study activities**

In recent years, the causes of traffic accidents have become increasingly complex and diverse, and it is becoming increasingly difficult to solve traffic accidents only by symptomatic measures based on direct causes. In order to promote effective and appropriate traffic countermeasures, we must conduct the necessary research and development to serve as a basis for such measures. Because traffic accidents are said to be caused by the complex interplay of three factors: people, roads, and vehicles, it is necessary to conduct further research and development in the fields related to each of the three factors, and to expand comprehensive research and study with the cooperation of each field.

In addition, it is essential to implement traffic safety measures based on objective data-based analysis, including evaluation in advance and after the fact, and to feed back the results obtained from the latter into other measures.

To this end, we will promote research and development on road traffic safety, and continue to pursue comprehensive surveys and research on the causes of road traffic accidents by enhancing analysis thereof, including not only fatal accidents but also accidents resulting in serious injuries.

To conduct this research, development and surveys, the testing and research institutes run by the national government and independent administrative agencies, which share responsibility for research and development on traffic safety, will increase their research funds, improve their research facilities, improve the overall coordination of research and development, and strengthen communication and coordination between institutes. In addition, efforts will be made to establish close ties with universities and private testing and research institutions that are conducting research and development on traffic safety.

The results of research and development related to traffic safety will also be incorporated into traffic safety measures, and the results will be disseminated through technical support to local governments, technical guidance to the private sector, and the provision of materials. Furthermore, we will actively promote international cooperation on research on traffic safety.

### **[Priority Measures and New Measures in the 11th Plan]**

- Optimizing traffic management ((1) A (C))
- Promoting research on traffic accident prevention for the elderly ((1) B)
- Research and study on suitable systems for the practical application of safe automated driving ((1) E)
- Enhancing comprehensive study to investigate the causes of traffic accidents ((2))

### **(1) Promoting research, development, and surveys on road traffic safety**

Research, development, and surveys in the fields of people, roads, and vehicles should be pursued systematically, taking into consideration the increasing complexity and diversity of factors causing traffic accidents, the increase in the elderly population and elderly drivers, the development of ICT, trends in road traffic accidents, and the future direction of road traffic safety measures.

Particular emphasis will be placed on research, development, and surveys on the following topics.

#### **A Promoting research and development on ITS**

The following research and development activities will be undertaken to achieve dramatic improvements in safety, transportation efficiency, and comfort, as well as to reduce traffic congestion and facilitate road traffic, thereby contributing to environmental preservation, by constructing systems that integrate people, roads, and vehicles using state-of-the-art ICT.

##### **(A) Enhancing road traffic information**

We will pursue research and development on the construction of systems to collect

and provide more accurate information on traffic congestion, travel time, traffic regulations, etc. in real time, thereby improving convenience for users by realizing safer and more comfortable travel to their destinations.

In addition, based on the guidelines for the provision of traffic information (Public Notice of the National Public Safety Commission No. 12 of 2002), we will work to prevent the route guidance information from interfering with the safety of traffic in areas passed through based on that information.

(B) Supporting safe driving

In order to enhance traffic safety through more advanced ITS, we will promote research and development of systems that use vehicle detectors and various sensors on the road to monitor the status of the road and traffic, as well as the status of vehicles in the vicinity. In addition, as a countermeasure against accidents that cannot be handled by vehicles alone, joint research and development will be conducted between industry, academia, and government to create driving support systems that make use of communication technologies such as road-to-vehicle, vehicle-to-vehicle, and pedestrian-to-vehicle communications. Particular emphasis will be placed on (1) research and development of safe driving support systems using road-vehicle coordination technology, and (2) research and development of ASV projects.

(C) Optimizing traffic management

The following research and development will be carried out in order to actively and comprehensively manage traffic flow and volume, improve traffic safety and comfort, and improve the environment.

- (1) Research and development for effective operation of public vehicle-priority signal control
- (2) Research and development of methods to support efficient operation of business vehicles by monitoring vehicle dynamics, etc.
- (3) Research and development on improving the accuracy of data for traffic regulation information, etc.
- (4) Research and development of traffic control systems that make use of big data, AI, and new communication methods, and their implementation

(D) Streamlining road management

In order to prevent road traffic hazards through prompt and accurate road management, we will promote research and development of systems that quickly collect and provide information on road surface conditions, weather conditions, etc., permit systems for special vehicles, etc., and systems that automatically identify actual traffic routes.

(E) Emergency vehicle operation support

In order to ensure prompt and accurate recovery and relief activities in the event of a disaster, etc., we will collect information on traffic conditions and damage to roads in real time, communicate it to the relevant organizations, guide and direct recovery vehicles to the site, and promote research and development of systems to be used for traffic management.

B Promoting research on the traffic-related behavior of elderly people

In order to implement appropriate safety measures to enable the elderly to move and drive safely and with peace of mind in response to the changes in the traffic accident situation accompanying the progress of an aging society, we will promote research on the planning of effective traffic accident prevention measures based on the traffic behavior patterns of elderly road users and drivers.

C Promoting research on vehicle safety

We will promote research and development of vehicle-related technologies necessary to prevent traffic accidents and to protect passengers and pedestrians in the event of an accident.

D Improving methods for evaluating and predicting the effectiveness of traffic safety measures

In order to pursue more efficient, effective, and focused traffic safety measures, methods for collecting data, analyzing and predicting the effects of various measures to reduce traffic accidents and to mitigate damage after accidents, such as personal injury, will be enhanced in order to conduct objective evaluations in advance and after the fact.

E Research and study on suitable systems for the practical application of safe automated driving

Taking technological development and other trends into account, we will conduct studies on suitable traffic rules for cases not premised on the existence of a conventional “driver,” and on how to ensure safety in situations that cannot be covered by automated driving systems.

F Promoting other research

(A) Enhancing long-term forecasts of traffic accidents

In order to pursue more efficient, effective, and focused traffic safety measures, which encompass a variety of different aspects, traffic accidents will be analyzed from a statistical perspective to improve long-term forecasts of trends and patterns in the incidence of traffic accidents. At the same time, we will continue to improve and expand various statistics and data relating to traffic accidents from a viewpoint of further promoting EBPM.

(B) Promoting research on social and economic losses associated with traffic accidents

We will promote research to comprehensively ascertain and analyze the full extent of the damages caused by traffic accidents, including the incidence of traffic accidents, the bodily injuries they cause, and the social and economic losses associated with them.

(C) Promoting research on traffic safety measures from the perspective of traffic accident victims, etc.

Promoting research on traffic safety measures from the perspective of victims of traffic accidents, local governments, and organizations involved in traffic safety.

(D) Promoting research on mental health recovery of victims of traffic accidents, etc.

We will promote research on treatment methods for those with PTSD and other persistent psychological aftereffects.

**(2) Enhancing comprehensive study to investigate the causes of traffic accidents**

In order to accurately grasp the actual traffic accident situation, and to contribute to the study and planning of effective and fine-tuned traffic safety measures to further reduce the number of traffic accident fatalities and injuries, the Traffic Accident Reconstruction and Analysis Center will construct a macro database, conduct micro surveys, and otherwise enhance and strengthen its systems. The Center will be actively used to analyze accidents involving people, roads, and vehicles from a comprehensive perspective. In addition, the Center will promote the development and use of a new traffic accident database through medical-engineering collaboration with emergency medical facilities, as well as promoting the application of micro data, such as that from event data recorders (EDRs), drive recorders, and data storage systems for automated driving (DSSADs), to traffic accident analysis.

In addition, in cooperation with experts in the fields of engineering, medicine, psychology, etc., as well as universities and private research institutes, we will pursue comprehensive research on traffic accidents using a scientific approach, enhancing our systems for identifying the mechanisms of accidents and establishing measures for accident prevention.

Furthermore, by actively providing the public with information related to traffic accident investigation and analysis held by the public and private sectors, we aim to raise the public’s awareness of traffic safety.





## Chapter 2 Railway Traffic Safety

### 1. Achieving a Society with No Railway Accidents

- Railways are an indispensable mode of transportation used by many people in their daily lives.
- We will pursue a comprehensive range of safety measures, including countermeasures against serious train accidents and accidents on platforms, with the aim of ensuring safer railway transport that people can use with peace of mind.

### 2. Objectives Set in Railway Traffic Safety

- (1) The number of passenger fatalities is to be reduced to zero.
- (2) The overall number of fatality accidents during operations is to be reduced.

### 3. Measures for Railway Traffic Safety

<2 perspectives>

- (1) Preventing serious train accidents
- (2) Prevention of accidents involving passengers, etc.

<8 Key Areas>

- (1) Improvement of Railway Environment
- (2) Dissemination of knowledge about the safety of rail traffic
- (3) Ensuring the safe operation of railways
- (4) Securing the Safety of Rolling Stock
- (5) Improving Rescue and First-Aid Activities
- (6) Promoting Victim Support
- (7) Determining the Causes of Railway Accidents and Preventing Accidents
- (8) Improving R&D and Studies and Research

## Section 1 Achieving a Society with No Railway Accidents

Railways, which can transport large numbers of people and goods at high speeds and on time, are an indispensable mode of transportation in the lives of the 25 billion people who use them annually. On today's high-speed and highly condensed railways, a collision or derailment can cause many casualties. In addition, since accidents involving bodily injury, such as collisions on platforms (accidents involving contact with trains, etc. on platforms or falling from platforms and coming into contact with trains, etc.), and railway crossing accidents together account for about 90% of all railway operation accidents, there is an increasing need to prevent such accidents involving passengers, etc.

For this reason, there is a need to implement a comprehensive range of safety measures, such as countermeasures against serious train accidents and accidents on platforms, in order to achieve safer railway transportation that the public can use with peace of mind.

### I The Situation regarding Railway Accidents

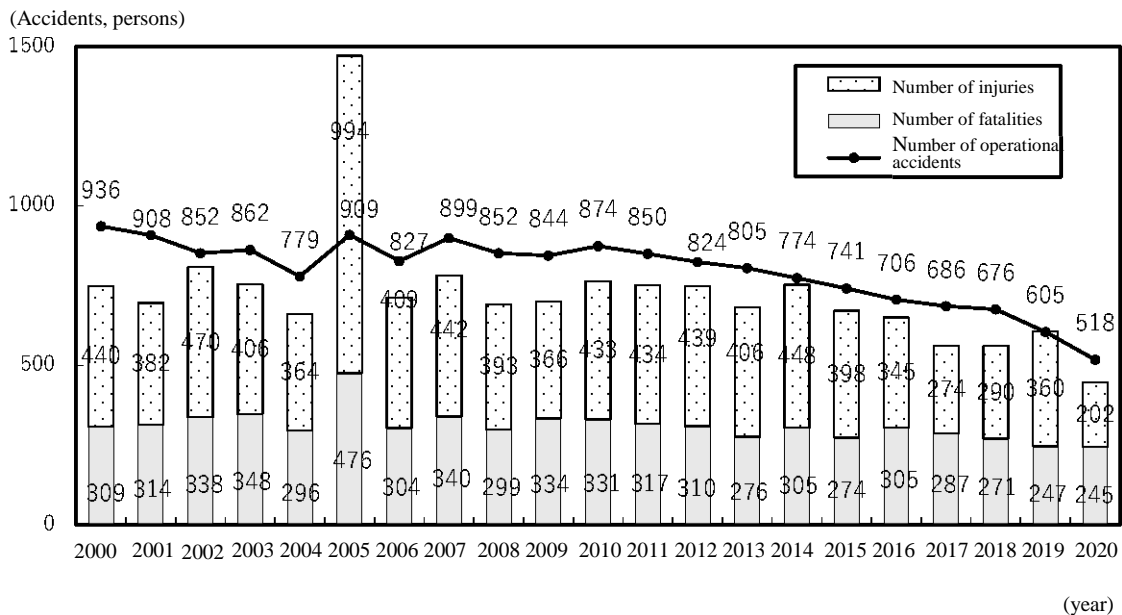
#### 1 Current Trends for Railway Accidents

The number of operation accidents on railways has been decreasing over the long term, with 518 accidents in 2020.

Meanwhile, the number of fatalities in 2020 was 245, and the number of injuries was 202.

In 2005, there was a train derailment on JR West's Fukuchiyama Line in which 106 passengers died, and a train derailment on JR East's Uetsu Line in which five passengers died. However, from 2006 to 2020, there have been no fatal passenger accidents.

Trends in the number of railway operation accidents and number of casualties



Notes: 1. Source: Ministry of Land, Infrastructure, Transport and Tourism  
2. The number of fatalities was registered within 24 hours after accidents

#### 2 Characteristics of recent railway operation accidents

As for the characteristics of railway operation accidents in recent years, accidents resulting in

bodily injury have accounted for about 60% of the total number of accidents, and accidents involving Railway Crossings have accounted for about 30%, with these two types accounting for about 90% of the total number of railway operation accidents. Almost all fatalities, meanwhile, are accounted for by accidents resulting in bodily injury and accidents involving Railway Crossings.

Among accidents resulting in bodily injury, there were 116 accidents involving collisions on the platform in 2020, of which a high percentage, about 70%, occurred in the Tokyo metropolitan area.

Among the accidents involving collisions on the platform, those involving intoxicated passengers accounted for about 60% of the total.

## **II Objectives of the 11th Plan**

**(1) The number of passenger fatalities is to be reduced to zero.**

**(2) The overall number of fatality accidents during operations is to be reduced.**

It is essential to prevent serious train accidents in which passengers are killed due to train collisions or derailments. In addition, it is important to reduce the overall number of fatalities in railway operation accidents, including collisions on platforms, by taking into account the characteristics of such accidents in recent years.

In recent years, sluggish growth in transportation volume due to a declining population and other factors has forced many operators into difficult business conditions, but it is necessary to continue promoting safety measures.

In light of this current situation, we shall, with the understanding and cooperation of the public, aim to maintain zero passenger fatalities and reduce the overall number of fatalities in railway operation accidents by implementing the measures set out in Section 2 and Chapter 3, Section 2 in a comprehensive and vigorous manner.

## **Section 2 Measures for Railway Traffic Safety**

### **I Perspectives in Considering Future Measures for Railway Traffic Safety**

Operations accidents with railways are on a decline in the long term, and it is evident that measures based on the past Traffic Safety Basic Plans have been effective to a certain extent. However, once a train collision or derailment occurs, there is a risk of many casualties, so it is vital to prevent serious train accidents from occurring.

In addition, accidents involving bodily injury, such as collisions on platforms, and accidents at Railway Crossings together account for about 90% of all railway operation accidents, and given that many of these accidents involve passengers, etc., there is a need to take countermeasures accordingly.

In view of the above, we will implement the following measures in a comprehensive manner to achieve even safer railway transportation.

### **II Measures to Be Taken**

#### **[Priority Measures and New Measures in the 11th Plan]**

- Improvements to safety of railway facilities, etc. (1 (1))
- Dissemination of knowledge about the safety of rail traffic (2)
- Implementation of safety audits (3 (1))
- Implementation of transportation safety management evaluations (3 (6))
- Initiatives for planned suspensions (3 (7))

#### **1 Improving the railway traffic environment**

In order to ensure the safety of railway traffic, it is necessary to maintain high levels of reliability in railway facilities and operational safety equipment, and to ensure the safety of the system as a whole. To this end, we will promote safety measures such as the maintenance of operational safety equipment.

##### **(1) Improve the safety of railway facilities, etc.**

In addition to proper maintenance, management and repair of railway facilities, reinforcement and improvement of aging bridges and other facilities will be undertaken to extend their service life. In particular, regional railways, which are facing difficult business conditions due to sluggish growth in transportation volume caused by a declining population and other factors, will be given subsidies and other support to promote the appropriate maintenance and repair of their facilities and rolling stock. We will also seek to improve technical capabilities by taking advantage of technical assistance programs provided by experts from research institutions.

Another urgent issue is to strengthen disaster prevention and mitigation measures to cope with frequent natural disasters. To this end, we will implement enhanced measures against landslides, such as cut and fill, and enhanced measures against flooding for such facilities as underground stations. To prepare for the anticipated occurrence of an earthquake directly beneath the Tokyo metropolitan area or in the Nankai Trough, we will promote anti-seismic measures at major stations and elevated bridges in order to maintain the railway network and

secure its ability to serve as a temporary evacuation site.

Furthermore, in order to prevent all passengers, including the elderly and visually impaired, from falling from platforms or suffering collisions on platforms, we will expedite the installation of platform doors at station facilities, etc. We will also promote fall prevention measures using new technologies, etc., to prevent accidents involving the visually impaired at stations without platform doors.

## **(2) Development of equipment operation safety**

Although installation has been completed of automatic train stopping systems with speed limiting functions (ATS\*) on curves, etc., train stopping systems in case of driver error, and operational status recording systems, etc. for which installation deadlines were set by law\*, we will continue to promote the installation of these systems.

## **2 Dissemination of knowledge about the safety of rail traffic**

Since most accidents resulting in bodily injury or involving Railway Crossings, which account for about 90% of all railway operation accidents, involve passengers, people passing through Railway Crossings, and residents along railway lines, preventing these accidents requires not only safety measures taken by railway companies, but also the understanding and cooperation of passengers and others. To this end, with the cooperation of relevant organizations, we will actively carry out public relations activities to disseminate accurate information regarding railroad safety, targeting a wide range of people, including schools, residents along railway lines, and road transport companies. These include the National Traffic Safety Campaign, the Railway crossing Accident Prevention Campaign, and the Zero Platform Accident Campaign, in which railway operators, cell phone companies, and others work together to inform railway passengers of the dangers of using smartphones while walking on platforms and to alert intoxicated passengers to prevent accidents.

In addition, we will seize these opportunities to install easy-to-understand displays for safety equipment such as emergency push buttons on station platforms and Railway Crossings, and to ensure that everyone is aware of emergency measures such as the operation of emergency push buttons.

## **3 Ensure the safe operation of railways**

In order to prevent serious train accidents from occurring, we will conduct security audits of railway operators and provide them with appropriate guidance. In the unlikely event of a major accident, we will respond quickly and appropriately. Furthermore, we will work to maintain the competency of drivers, share and put to use information on accidents and safety issues, and improve weather information, etc.

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\*ATS: Automatic Train Stop

\*Facilities on lines where the maximum number of trains per hour is 10 or more round trips, or rolling stock running on such lines, or rolling stock whose operating speed exceeds 100 km/h, or facilities on lines where such rolling stock runs, for which installation is mandated within 10 years.

**(1) Conduct safety audits**

We will conduct safety audits of railway operators periodically or after serious accidents, etc., and give appropriate guidance on the status of the efforts to ensure the safety of transportation, the status of maintenance and management of facilities and vehicles, the status of operation handling, and the status of education and training for the crew members, etc., as well as following up on past guidance. We will also enhance the safety audits by making them more varied and effective, such by as conducting one-off safety audits when similar problems occur, in addition to the planned safety audits.

**(2) Maintaining driver competency**

In order to maintain driver competency, we will ensure that the train driver's license test is properly conducted. In addition, competency will also be maintained by instructing operation managers and crew guidance supervisors to take appropriate measures regarding education, etc.

**(3) Sharing and utilizing information on safety issues**

A liaison conference on railway safety will be held with safety officers from major railway companies to share information on accidents and measures to prevent their recurrence. In addition, we will collect information on safety issues and promptly notify railway operators and share the information to prevent the recurrence of accidents. In addition, we will instruct them to use operation status recording devices and promote active reporting of information on safety issues by staff on the ground.

**(4) Enhancing weather information, etc.**

We appropriately identify natural phenomena such as typhoons, heavy rains, heavy snow, hazardous winds including tornadoes, earthquakes, tsunamis, and volcanic eruptions that will affect railway traffic, and endeavor to issue Emergency warnings, Warnings, and forecasts timely and appropriately, and to disseminate the information quickly, as well as endeavor to make qualitative improvements to this information. Railway operators shall endeavor to mitigate damage to railway facilities and ensure stable transportation, while ensuring safety by collecting and understanding such meteorological information at an early stage and reflecting it in operation management.

Furthermore, observation facilities related to weather, earthquakes, tsunamis, volcanic phenomena, etc. will be appropriately developed, installed, and maintained, and we will share information with disaster risk reduction related organizations, and will improve observation and monitoring systems using ICT. We also endeavor to spread meteorological knowledge through publicity activities and seminars, etc.

**(5) Appropriate response at the occurrence of a major accident**

The national government and railway companies will check and confirm their emergency communication systems for nighttime and holidays, and collect and communicate information quickly and accurately in the event of a major accident.

In order to reduce confusion in the event of an accident, etc., we will instruct railway operators to accurately grasp the status of train operations, provide appropriate information to railway users, and establish the systems necessary for quick recovery.

In addition, in order to provide information to foreign residents and visitors to Japan, instructions shall be given to enhance the multilingual information systems for when accidents occur.

#### **(6) Implementation of transportation safety management evaluations**

We will continue to implement transportation safety management evaluations, in which the government verifies the establishment and improvement of railway operators' safety management systems. In addition, through the evaluation of transportation safety management, efforts will be made to raise awareness of disaster prevention among transport operators and to strengthen advance measures, etc. As well as strengthening transportation disaster prevention efforts, this will allow accurate confirmation of transport operators' safety initiatives in light of the impact of infectious diseases and instill awareness on the part of operators regarding thorough compliance and observance.

#### **(7) Initiatives for planned suspensions**

When weather conditions are forecast to interfere with train operations, such as when a large typhoon is approaching or making landfall, railway operators will be instructed to pay more attention to weather conditions and to make efforts to ensure safety by systematically suspending train operations after providing information in advance in accordance with the characteristics of the route from a safety perspective.

In addition, in order to provide information to foreign residents and visitors to Japan, instructions shall be given to enhance the multilingual information systems for when accidents occur.

### **4 Securing the Safety of Rolling Stock**

We will review the technical standards for safety regarding the structure and equipment of railway vehicles in a timely and appropriate manner, taking into account the accidents that have occurred and advances in science and technology.

### **5 Improving Rescue and Emergency Activities**

In order to prepare for serious accidents on railways, etc., we will improve training and strengthen the coordination and cooperation between railway operators, fire departments, medical facilities, and other related organizations in order to conduct evacuation guidance, rescue, and emergency activities quickly and accurately.

In addition, we will conduct awareness-raising activities for railway employees on first aid, including cardiopulmonary resuscitation and the use of automated external defibrillators (AEDs).

## **6 Promoting Victim Support**

In order to secure support for victims of public transportation accidents, the Public Transportation Accident Victim Support Office established by the Ministry of Land, Infrastructure, Transport and Tourism will be responsible for (1) providing information in the event of a public transport accident, and (2) coordinating with victims over the medium to long term, from the time of the accident until they are able to lead a peaceful life again (e.g., responding to consultations from victims regarding mental and physical care and referring them to specialists). We will continue to steadily promote efforts to support victims of public transport accidents, such as building networks with related external organizations, holding forums to support victims of public transport accidents, and promoting the preparation of support plans for victims by public transport operators, while receiving advice from related parties.

## **7 Determining the Causes of Railway Accidents and Preventing Accidents**

In order to determine the causes of railway accidents and railway incidents (railway serious incidents) more promptly and accurately, we Japan Transport Safety Board will improve investigation techniques by enhancing specialized training for the staff in charge of investigations, and will also improve investigation and analysis methods by developing new investigation methods using drones, etc. and utilizing the expertise and various analysis techniques obtained through past investigations of accidents, as well as the stock of accident investigation results such as comparative analysis of similar accidents.

Based on the results of the investigation of accidents, and in order to prevent them or reduce the damage in the event they occur, we will make recommendations to the Minister of Land, Infrastructure, Transport and Tourism or the parties involved with the cases as necessary, and contribute to the safety of railway traffic by requesting required measures and actions to be taken by giving opinions to the Minister of Land, Infrastructure, Transport and Tourism or the heads of related government institutions.

In order to ensure that the results of past accident investigations are effectively applied by people involved in railway affairs and lead to the prevention of railway accidents, we will promote spread enlightening activities, such as publishing information magazines which present investigation reports in an easy-to-understand manner, rearranging them in accordance with the topics which the relevant organs have interest, and will further enhance the content and search functions of the investigation report database.

In addition, corresponding to changes in social conditions, such as the increasing severity of natural disasters and labor shortages, utilization of our knowledge and stock of information will contribute to help improve the safety of train operation.

We will contribute to the improvement of railway traffic safety around the world by applying Japan's expertise to the training of overseas personnel who conduct investigations of railway accidents, and by participating in international conferences such as the International Conference



on Railway Technology (ICRT\*).

## **8 Improving R&D and Studies and Research**

We will conduct research, development and studies on improving railway safety.

Specifically, in order to realize safer railway systems, the National Traffic Safety and Environment Laboratory will conduct research on evaluating new technologies for facilities, rolling stock, and operation, and predicting their effects, as well as research on technologies for preventing accidents arising from human error. In addition, research on safety and reliability evaluation will be conducted in order to promote the practical application of new transportation systems with high levels of safety.

Furthermore, the Railway Technical Research Institute will conduct development and research that contribute to further improvement of safety, such as research and development on mitigating damage in the event that an accident or disaster occurs.

Also, for general railway lines with Railway Crossings, we will study the technical requirements to maintain and improve safety and convenience with respect to the introduction of automatic operation, which will harness the latest technologies such as sensor technology, ICT, and wireless train control technology to contribute to a productivity revolution in the rail sector.

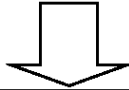
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\*ICRT: International Conference on Railway Technology

## Chapter 3 Traffic Safety at Railway Crossings

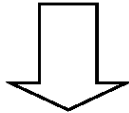
### 1. Achieving a Society with No Accidents at Railway Crossings

Although the number of railway crossing accidents has been decreasing over the long term, there are still some roads with Railway Crossings that need to be improved, and the goal is to create a society without railway crossing accidents by continuing to promote measures aimed at preventing them.



### 2. Objective Set in Traffic Safety at Railway Crossings

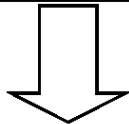
The number of accidents at railway crossings is to be reduced by 10% compared to 2020 by 2025



### 3. Measures for Railway Crossings Traffic Safety

#### <Perspectives >

Promoting effective measures that take into account the conditions of each railway crossing.



#### <4 Key Areas>

- (1) Promoting replacement of railway crossings with grade-separated crossings, structural improvements, and improvement of grade separation facilities for pedestrians
- (2) Improving railway crossing maintenance facilities and implementing traffic regulations
- (3) Promoting streamlining of railway crossings
- (4) Other measures to secure the safety and smoothness of traffic on Railway Crossings

## Section 1 Achieving a Society with No Accidents at Railway Crossings

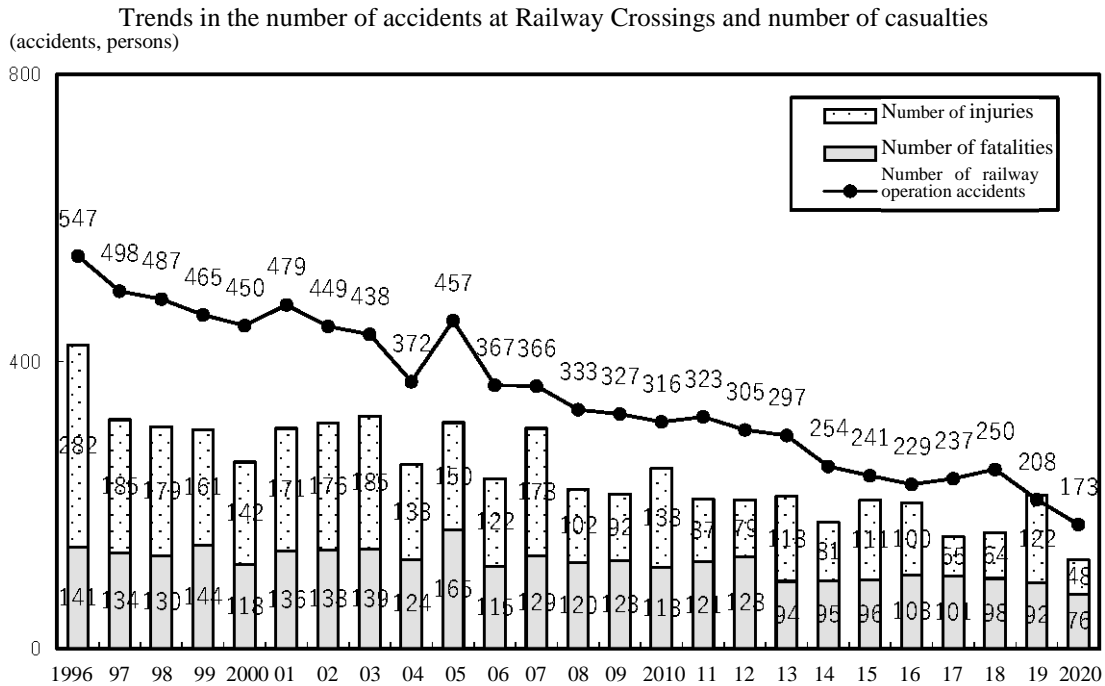
Accidents at Railway Crossings are on a decline in the long-term. However, railway crossing accidents still account for about 30% of all railway operation accidents, and there are still many roads with Railway Crossings that need to be improved. In light of such conditions, the government will aim for a society with no railway crossing accidents by continuing to comprehensively and actively implement measures to prevent railway crossing accidents.

### I Current Trends in Accidents at Railway Crossings

#### 1 Current Trends for Accidents at Railway Crossings

The number of railway crossing accidents (referring to railway crossing failures and any resulting train accidents among all railway operation accidents) has been on a long-term downward trend, with 173 cases and 124 casualties in 2020.

Accidents at Railway Crossings are on a decline in the long-term, and active implementation of safety measures, such as improvements of Railway Crossings, appears to have had a significant influence. However, railway crossing accidents still account for about 30% of all railway operation accidents, and there are still many roads with Railway Crossings that need to be improved.



Notes: 1. Source: Ministry of Land, Infrastructure, Transport and Tourism  
2. The number of fatalities was registered within 24 hours after accidents.

Year

## **2 Characteristics of Recent Accidents at Railway Crossings**

The characteristics of railway crossing accidents in recent years include the following: (1) by type of railway crossing, Type 1 Railway Crossings (Railway Crossings with automatic gates or railway crossing guards operating the gates day and night) have the highest number of incidents, but Type 1 Railway Crossings have the lowest number of incidents per 100 Railway Crossings (2) by collision type, about 40% of the accidents involved collisions with automobiles and about 50% involved collisions with pedestrians, (3) by cause, about 50% of the accidents were caused by crossings made immediately before a train passes (4) many railway crossing accidents involved the elderly, with about 40% of the accidents involving people aged 65 or older.

## **II Objectives of the 11th Plan**

**The number of accidents at railway crossings is to be reduced by 10% compared to 2020 by 2025**

In order to ensure the safety and smoothness of traffic at Railway Crossings, we shall aim to reduce the number of accidents at Railway Crossings by about 10% by 2025 compared with that in 2020, by comprehensively and actively promoting the measures listed in Section 2 with the understanding and cooperation of the public.

## **Section 2 Measures for Railway Crossings Traffic Safety**

### **I Perspectives in Considering Future Measures for Railway crossing Safety**

The declining trend in both the number of accidents at Railway Crossings and the number of casualties caused by these accidents indicates that the traffic safety measures at Railway Crossings implemented based on the 10th Traffic Safety Basic Plan have had a certain level of effect with regard to railway crossing safety.

However, once an accident occurs at a railway crossing, it can have serious consequences, as in the case of the train derailment that occurred on Keihin Electric Express Railway in FY 2019, when a passing train collided with a truck at a railway crossing. Therefore, taking into consideration the fact that there still remain Railway Crossings that require improvements such as grade separation, structural improvements, development of grade separation facilities for pedestrians, railway crossing maintenance facilities, traffic regulations, and railway crossing consolidation and elimination, and that these measures also contribute to smooth traffic flow and environmental conservation by reducing traffic congestion, we will pursue more effective measures in a comprehensive and proactive manner, taking into consideration the conditions of each railway crossing, such as measures for non-opening crossings and measures for the elderly and other pedestrians.

We will also study measures to further improve the safety of Railway Crossings in view of changes in the social environment, such as the development of ICT technology and changes in lifestyles.

In addition, it is important that road administrators and railway operators cooperate to draw up and publish “Railway crossing Safe Passage Charts” based on various factors such as the closed amount of time and traffic volume at each railway crossing, the implementation status of the measures taken to date, and their effectiveness, so that measures based on the conditions at each railway crossing can be pursued intensively while maintaining transparency.

### **II Measures to Be Taken**

#### **[Priority Measures and New Measures in the 11th Plan]**

- Promoting replacement of Railway Crossings with grade-separated crossings, structural improvements, and improvement of grade separation facilities for pedestrians (1)
- Improving railway crossing maintenance facilities and implementing traffic regulations (Measures for the elderly and other pedestrians) (2)
- Promoting streamlining of Railway Crossings (3)
- Other measures to ensure the safety and smoothness of traffic on Railway Crossings (4)

#### **1 Promoting replacement of railway crossings with grade-separated crossings, structural improvements, and improvement of grade separation facilities for pedestrians**

Railway Crossings with particularly long blocked times (non-opening Railway Crossings) and Railway Crossings on major roads with heavy traffic volumes should be eliminated through

drastic traffic safety measures such as continuous grade separation, etc. At the same time, when constructing new roads, reconstructing roads, and constructing new railway lines, grade separation should be implemented to the greatest extent possible.

In addition, for non-opening crossings that may take time to be converted to grade-separated crossings, structural improvements such as widening of sidewalks, installation of grade-separated crossing facilities for pedestrians, and other integrated measures such as colored paving and improvement of bicycle parking lots around stations, will be implemented in accordance with the conditions of each crossing road to ensure safety and security as soon as possible.

In addition, we will promote the improvement of Railway Crossings with narrow sidewalks to make them more effective in preventing accidents, for example, by widening the crossings in consideration of pedestrian congestion so that pedestrians and vehicles do not come into contact on the railway crossing.

Furthermore, measures to ensure safe and smooth passage for the elderly, etc., including leveling out uneven surfaces and other “barrier-free” improvements, will be taken in accordance with the summary of the Study Group on Measures to Prevent Railway Crossing Accidents Involving the Elderly, etc. in October 2015.

As described above, we will implement comprehensive measures that include both drastic measures such as grade-separated crossings and quick-acting measures such as structural improvements.

In addition to the existing measures for Railway Crossings, measures for the area around Railway Crossings will be taken to reduce the amount of traffic crossing the Railway Crossings, including the construction of new entrances and exits at stations and the improvement of roads around Railway Crossings.

## **2 Improving level crossing maintenance facilities and implementing traffic regulations**

Since the accident rate at Railway Crossings with gates is lower than that at Railway Crossings without them, the construction of railway crossing gates will be steadily undertaken, taking into consideration the usage of the railway crossing, the width of the railway crossing, and the implementation of traffic regulations.

For Railway Crossings in large cities and major regional cities where there are a large number of trains and the warning time varies depending on the type of train and other factors, the warning time control system will be improved as necessary to minimize the time that the railway crossing is closed.

For Railway Crossings with heavy vehicle traffic, railway crossing safety equipment that are more effective in accident prevention, such as obstacle detectors, overhead crossing signals,

and large crossing gates, will be installed as necessary, taking into account road traffic conditions and the occurrence of accidents.

We will also promote the standardized installation of omni-directional alarm systems, emergency push buttons, and obstacle detection systems, which should be effective measures for the elderly and other pedestrians.

Taking into consideration the traffic volume on the road, the width of the railway crossing road, the maintenance condition of the railway crossing safety equipment, and the condition of detour routes, etc., traffic regulations such as road closures for vehicles, road closures for heavy vehicles, one-way traffic, etc. will be implemented as necessary, while the visibility of road signage will be improved through measures such as making them brighter.

### **3 Promoting streamlining of railway crossings**

In conjunction with projects such as the conversion of Railway Crossings into grade-separated crossings and structural improvements, railway crossing roads in close proximity shall, taking into consideration factors such as their usage and the availability of alternative routes, be consolidated and eliminated where it is deemed to pose no particular obstacle to the passage of local residents, such as for Type 3 and Type 4 Railway Crossings. Similar consolidation and elimination efforts will also be pursued even with respect to railway crossing roads that are not in close proximity.

However, regarding structural improvements, the installation of sidewalks on railway crossing roads where there are no or narrow sidewalks can, considering the urgency of such measures, be implemented without carrying out consolidation or elimination.

### **4 Other measures to ensure the safety and smoothness of traffic on Railway Crossings**

For Railway Crossings where urgent consideration of countermeasures is required, “Railway crossing Safe Passage Charts” will be drawn up and published, and “visualization” of the process, including verification of effectiveness, will be carried out, with emphasis placed on implementing countermeasures that take into account the situation at each railway crossing, while also maintaining transparency.

In addition, in order to ensure the safety and smoothness of traffic at Railway Crossings, the installation of railway crossing warning signs and railway crossing signals, as well as supervision and enforcement for violations by vehicles and others when passing through Railway Crossings, will be carried out as necessary.

Campaigns to prevent accidents at Railway Crossings will be conducted to raise awareness of traffic safety among motorists, pedestrians and other users, and to familiarize them with emergency measures such as the operation of emergency push buttons at Railway Crossings. In addition, education on how to cross at Railway Crossings will continue to be given at schools and driving schools, and pamphlets on preventing accidents at Railway Crossings will be distributed by railway companies to medical institutions such as hospitals and facilities for the

elderly. Support for victims of railway crossing accidents will also be provided in an appropriate manner in light of the circumstances of the accident.

We will also study measures to further improve the safety of Railway Crossings in view of changes in the social environment, such as the development of ICT technology and changes in lifestyles.

In addition to measures to ensure safe and smooth traffic during normal times, in order to deal with issues during disasters such as the disruption of emergency and life-saving activities and the transportation of emergency supplies due to the prolonged closure of railway crossing roads, we will share information on closing times among the relevant parties, and make efforts to establish management methods for clearing blocked crossings and implementing detours during disasters.



## **Part 2            Maritime Traffic Safety**

### 1. Achieving a society with no maritime accidents

- Prevent the occurrence of maritime accidents and prevent the loss of human life at sea.
- Ensure the safety of maritime traffic to prevent enormous adverse effects on the economy and the natural environment.



### 2. Objectives Set in Maritime Traffic Safety

- (1) Continuously aim at reducing the number of vessels involved in ship accidents occurring in Japan to approximately 50% (or approximately 1,200 vessels or less) of the annual average of the 9th Program period (2,256 vessels) by 2029, and aim at reducing the number to 1,500 or less by 2025.
- (2) Reduce the number of large-scale maritime accidents in the "congested waters, \*" which may cause significant social impacts such as closure of traffic route to zero.
- (3) Achieve the rate of 95 percent or higher for the number of rescued people to the number of those who need to be rescued in maritime accidents.

\*Waters in Tokyo Bay, Ise Bay, the Seto Inland Sea and Kanmon Port which many ships pass through



### 3. Measures for Maritime Traffic Safety

<4 perspectives>

- (1) Preventing accidents caused by human error
- (2) Preventing large-scale maritime accidents in the "congested waters"
- (3) Preventing accidents involving passenger ships
- (4) Enhancing the systems for prompt lifesaving and the measures for self-protection



<10 Key Areas>

- (1) Improving the maritime traffic environment
- (2) Disseminating knowledge on maritime traffic safety.
- (3) Securing safe operation of ships
- (4) Securing the Safety of Maritime Vessels
- (5) Enhancing Safety Measures for Small Boats
- (6) Maintaining legal order regarding Maritime Traffic
- (7) Improving Rescue and First-aid Activities
- (8) Promoting Victim Support
- (9) Determining the Causes of Maritime Vessel Accidents and Preventing Accidents
- (10) Improving Studies and Research into Maritime Traffic Safety

## **Section 1 Achieving a society with no maritime accidents**

In Japan, which is surrounded by oceans on all four sides, maritime transportation is indispensable for supporting the country's economy, industry, and the daily lives of its people. In particular, Tokyo Bay, Ise Bay, and the Seto Inland Sea, which are bases of economic activity, as well as the Pacific coastal routes and ports that connect them, are subject to heavy maritime traffic, as well as fishing and marine leisure activities. In recent years, there has also been an increase in the number of large cruise ships carrying large numbers of passengers calling at ports, and an increase in the size of vessels such as container ships.

In light of this situation, once an accident involving a ship occurs at sea, not only is there a high risk to human life, but it can also lead to secondary disasters such as large oil spills and closure of traffic route, which can have an enormous impact on Japan's economy and natural environment. Meanwhile, accidents involving small vessels still account for about 80% of all accidents, and it is necessary to continue to focus on promoting safety measures for small vessels. In recent years, new water activities such as mini-boats and stand-up paddle boats (SUP), which do not require a license or inspection, have become more varied and popular, making it necessary to take accident prevention measures for these activities too.

In addition, there has been a series of catastrophic disasters such as typhoons of a scale never experienced before, and it is necessary to implement measures to prevent accidents caused by natural disasters that have an enormous impact on transportation of people and logistics.

In light of these circumstances, from the viewpoint of ensuring the safety of maritime traffic as a whole, it is necessary for all parties concerned to cooperate and promote comprehensive and systematic safety measures in terms of both physical and social aspects, to enhance the investigation system to determine the causes of ship accidents, etc. Furthermore, in order to improve the rescue rate, it is necessary to continue to strongly support quick and precise search and rescue activities for passengers and others on board in the event of maritime accidents, as well as to implement stronger self-saving measures.

On the other hand, the direct and indirect effects of COVID-19 also affect maritime traffic, causing various problems and restrictions, and affect the lifestyle and traffic behavior of the public. As such, we will closely monitor the situation throughout the period of this plan and take necessary measures as needed.

### **I Current Trends in Maritime Accidents\***

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\*In this program, maritime accidents refer to ship accidents and accidents involving bodily injury, defined respectively as follows.

Ship accident: A situation in which any of the following occurs to a ship at sea.

- Collision, grounding, capsizing, flooding, explosion, fire, disappearance
- Damage to or failure of engines, propulsion equipment, rudders, etc., or other inability to operate the ship

Accident involving bodily injury: A situation in which any of the following occurs at sea or in the water.

- Passengers falling overboard or suffering injury, illness, poisoning, etc. for reasons unrelated to a ship accident
- People other than passengers suffering injury, drowning, inability to return, etc. at beaches, etc.

The number of vessels involved in ship accidents from 2016 to 2020\* was 2,030 per year on average, which is about 10% less than the average of the previous five years.

The percentage of accidents occurring in coastal waters (within 20 nautical miles of the shore) is extremely high, with about 40% of all accidents occurring in congested waters and surrounding waters, and the number of collision and grounding accidents in congested waters is increasing.

Looking at the proportion of ship accidents by vessel type, small vessels\* accounted for about 80% of the total, with pleasure boats in particular accounting for about 50% of the total.

About 70% of ship accidents are caused by human error, such as inappropriateness of watchkeeping and improperness of machine handling.

From 2016 to 2020, the annual average number of fatalities and missing persons due to ship accidents or falling overboard from ships was about 157, which is about 17% less than the average for the previous five years.

From 2016 to 2020, the annual average number of people suffering bodily injury was 2,628, and the number has been gradually decreasing since 2016.

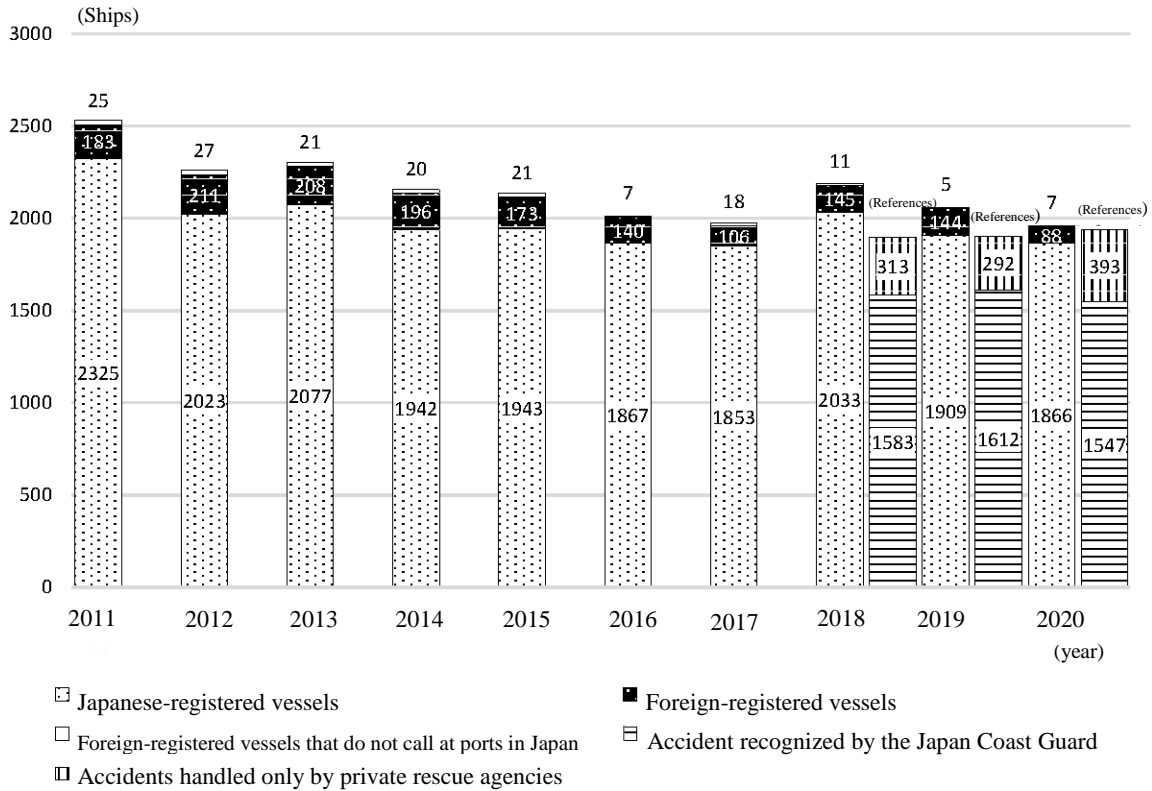
As in the case of ship accidents, the percentage of accidents involving bodily injury that occur in coastal waters (within 20 nautical miles of the shore) is extremely high, and those within 3 nautical miles of the shore account for about 90% of all accidents.

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\*Since 2018, the Japan Coast Guard has also included accidents involving ships handled by private rescue organizations, etc., and categorized those that caused damage or tangible danger related to ship operations as “accidents” and those that did not (including those caused by force majeure, etc. ) as “incidents.” The number of accidents was 1,896 in 2018, 1,904 in 2019, and 1,940 in 2020. It plans to apply “accident” to the number of vessels involved in ship accidents in the future.

\*Pleasure boats (including mini boats, canoes, dinghy yachts, etc. that do not require qualifications), fishing boats and sportfishing boats

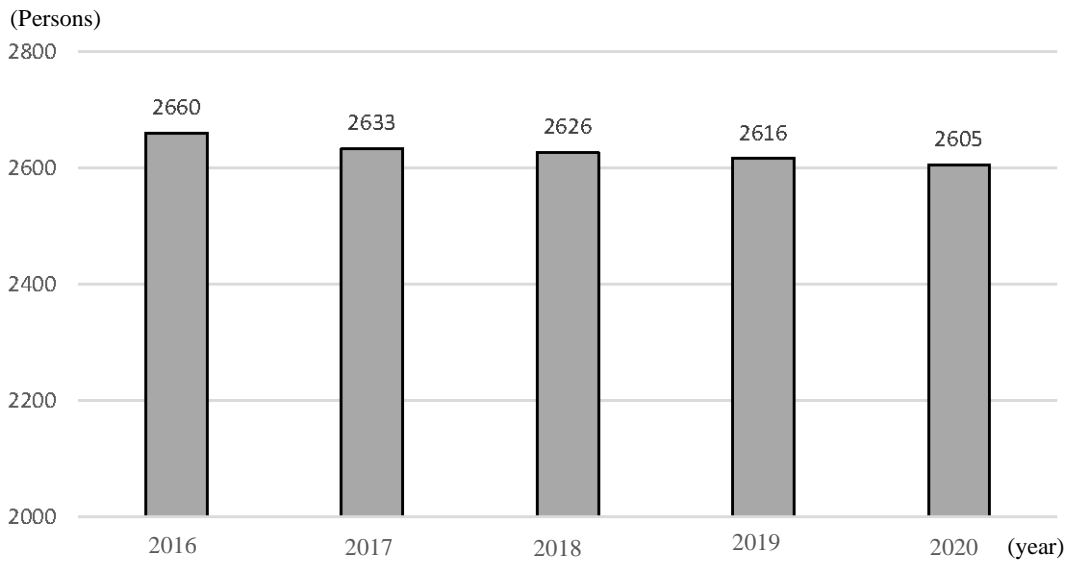
Trends in the number of vessels involved in ship accidents  
 (\*Measures exclude foreign vessels that do not call at ports in Japan)



Trends in the number of fatalities and missing persons  
 due to ship accidents or falling overboard from ships



### Trends in the number of people suffering bodily injury



## **II Objectives of the 11th Plan**

- (1) Continuously aim at reducing the number of vessels involved in accidents occurring in Japan to approximately 50% (or approximately 1,200 vessels or less) of the annual average of the 9th Program period (2,256 vessels) by 2029, and aim at reducing the number to 1,500 or less by 2025.**
  
- (2) Reduce the number of large-scale maritime accidents in the "congested waters," which may cause significant social impacts such as closure of traffic route to zero.**
  
- (3) Achieve the rate of 95 percent or higher for the number of rescued people to the number of those who need to be rescued in maritime accidents.**

## **Section 2 Measures for Maritime Traffic Safety**

### **I Perspectives in Considering Future Measures for Maritime Traffic Safety**

In recent years, the number of vessels involved in ship accidents has been on a downward trend, and in light of the fact that there have been no major maritime accidents in congested waters, it is evident that the measures implemented in accordance with Traffic Safety Basic Plans to date have been effective in ensuring maritime traffic safety.

However, there are still a large number of accidents caused by human error, especially on small vessels, and once an accident occurs at sea, there is a risk of many casualties. Therefore, it is necessary to make further efforts to achieve safe maritime traffic. Hence, it is necessary to continue to implement conventional safety measures while improving them to make them more effective, and to promote new measures that have the potential to be effective, such as the active use of advanced technologies.

Therefore, in the 11th Plan, future measures will be undertaken in light of the following perspectives.

#### **1 Prevention of accidents due to human error**

Since the number of ship accidents caused by human error is extremely high, we will undertake measures to prevent accidents caused by human error. In particular, we will enhance measures aimed at small vessels, which account for the majority of ship accidents.

#### **2 Prevention of large-scale maritime accidents in congested waters**

Due to an increase in the size of ships which is aimed at improving transportation efficiency and the increasing severity of natural disasters, there is a high probability that once an accident occurs in a sea area where ships are congested, it will escalate into a major maritime disaster, leading to consequences such as the blocking of maritime traffic and the closure of traffic route.

#### **3 Prevention of passenger ship accidents**

In order to prevent accidents on passenger ships that may cause damage to an unspecified large number of passengers, we will strengthen measures such as enhancing and strengthening guidance and supervision for business operators.

#### **4 Strengthening lifesaving systems and self-saving measures**

In order to improve the rescue rate, the lifesaving system will be enhanced and strengthened in order to carry out quick and precise search and rescue activities for the people on board in the event of a maritime accident, and efforts will be made to promote self-saving measures such as wearing a life jacket.

### **II Measures to Be Taken**

**[Priority Measures and New Measures in the 11th Plan]**



- Ensure development of aids to navigation, etc. (1 (1) c)
- Ensure the safety of congested waters, etc. (1 (2))
- Prevention of human error(3 (1), 5 (1) a)
- Ensure safety by enhancing ship operation management, etc.(3 (1), (2), (3), (8))
- Ensure safety by establishing safety standards for ships, etc.(4 (1), (2))
- Safety measures for small vessels (pleasure boats, fishing boats, etc.) (5 (1) a, b, (2), (3))
- Enhancement of the rate of wearing life jacket (5 (1) c)
- Enhancing the systems to obtain maritime accident information as early as possible (7 (1))
- Enhancing rescue and emergency service systems (7 (2))
- Enhancing research and studies on safety measures for maritime traffic (10)

## **1 Improving the maritime traffic environment**

In order to ensure safe and smooth navigation of ships and safety in ports and harbors in view of the increasing size of ships, diversification of sea area use, increasing complexity of maritime traffic, and increasingly severe natural disasters, we will promote the development of traffic route, ports and harbors, fishing ports, and aids to navigation and others, as well as the enhancement of safety-related information such as nautical charts, sailing directions, and date of tidal stream and others, and the development of a real-time monitoring and providing information system using ICT.

In addition, we will keep a close watch on changes in the maritime traffic environment and work to review the current system as necessary.

### **(1) Development of traffic safety facilities, etc.**

- A Development of traffic safety facilities, including maintenance of Waterways to be Developed and Preserved and maintenance of ports and harbors

From the viewpoint of the safe and efficient navigation of ships in ports and harbors and the prevention of maritime accidents in rough seas, we will strive to install and maintain breakwaters, traffic route and anchorages, taking into consideration the increasing size and speed of ships, and to provide information on marine phenomena by publishing information on websites.

- B Development of fishing ports

We will undertake the installation and maintenance of breakwaters, traffic route, and anchorages to enable the safe operation of fishing vessels and their safe evacuation during rough seas.

- C Ensure development of aids to navigation, etc.

In order to prevent the collapse of aids to navigation caused by natural disasters such as typhoons, which have become increasingly severe in recent years, and to ensure the safety of maritime traffic even in times of disaster, we will work to make durable and upgrade aids to navigation.

- D Promotion of large-scale disaster countermeasures at ports and harbors

In order to build a disaster-resistant marine transport network, we will promote improvements to the earthquake resistance of port facilities, breakwaters with “resilient structures,” and coastal protection facilities to protect areas behind the port from damage caused by tsunami, high tides, and high waves, as well as improve the port BCP\* and conduct disaster drills in cooperation with relevant organizations.

E Strengthening the earthquake resistance of fishing ports

At fishing ports, which serve as regional disaster management centers in the event of earthquakes and other disasters and as distribution centers for marine products, we will promote, in line with regional disaster management plans, the construction of anchorages that can accommodate rescue vessels, quays with enhanced earthquake resistance, and transportation facilities.

In addition, efforts will be made to understand the current earthquake resistance of fishing port structures, and to develop technology for earthquake resistance.

F Ensuring ship traffic safety by collecting drifting garbage

Marine environment improvement vessels deployed in the closed sea areas of Tokyo Bay, Ise Bay, the Seto Inland Sea, Ariake Sea, and Yatsushiro Sea (excluding port and fishing port areas) will collect garbage such as driftwood and oil spilled from ships drifting on the sea surface to preserve the marine environment and ensure the safe and smooth navigation of ships.

G Promotion of countermeasures against aging of port and harbor facilities

Based on the maintenance management plan prepared for each port facility and the preventive maintenance plan prepared for each port, we will promote countermeasures against aging using strategic stock management, such as systematically switching the use of facilities whose functions have deteriorated due to aging or changes in social conditions, reviewing their specifications, and reorganizing them into more efficient docks.

**(2) Ensure the safety of congested waters, etc.**

A Strengthening the sea area monitoring system

In order to provide prompt and reliable information to ships on warnings and evacuation zones in the event of disasters such as tsunamis, as well as to provide accurate information to ease congestion during normal times, and to improve international competitiveness by enhancing safety and further improving the efficiency of logistics, the OSAKA WAN Vessel Traffic Service Center will be restructured to strengthen the maritime monitoring system in the three major bays (Tokyo Bay, Ise Bay, and Osaka Bay).

In addition, in order to maximize the effects of strengthening the maritime monitoring

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\*BCP: Business Continuity Plan

system and to further improve the safety of ship traffic, we will study measures to further promote the use of AIS\*, including the type of vessels that are required to be equipped with them.

**B** Ensure safety in congested waters, etc.

If a large-scale maritime accidents that could block traffic route occurs in congested waters, it could not only cause serious social damage in terms of loss of life, property, and the environment, but also block maritime traffic and paralyze economic activities in Japan.

Therefore, the Vessel Traffic Service Center will promote the safety of marine traffic by providing information, advice, and instruction for the prevention of danger. In addition, we will improve the functionality and reliability of the center by enhancing its monitoring functions through an upgrade of its radar.

Furthermore, in sea areas frequented by large numbers of ultra-large ships, ships with dangerous goods, and foreign ships, we will promote the development of virtual AIS aids to navigation to serve as indicators for navigating ships.

**C** Ensure safety in quasi-congested waters, etc.

Quasi-congested sea areas (the sea areas connecting the congested areas of Tokyo Bay, Cape Irozaki, Ise Bay, Cape Shionomisaki, Cape Muroto, and Cape Ashizuri to the Seto Inland Sea) are highly likely to be the site of serious marine accidents, including fatalities and missing persons, due to the large volume of ship traffic and complex crossings. Therefore, efforts will be made to improve safety by designating routes using AIS route signs and establishing recommended routes.

**D** Measures to prevent accidents caused by dragging anchor in rough seas

In order to prevent accidents caused by ships dragging anchor, etc. in rough seas, measures such as anchoring restrictions will be implemented on an ongoing basis in the sea areas around facilities where ships may collide due to dragging anchor, etc. In addition, measures to prevent accidents will be implemented, such as the development and promotion of a system to determine the risk of dragging anchor for each ship based on meteorological, hydrological and ship's conditions, and the enhancement of the sea area monitoring system.

**(3) Enhancement of providing information on maritime traffic**

**A** Implementation of providing information using the navigation support system

We will continue to provide information based on our assessment of the movements of vessels, the current status of meteorological and hydrological conditions observed at lighthouses throughout Japan, and other information necessary for the safety of maritime traffic, using various means such as AIS, telephone services, radio, etc. We will also make necessary revisions in order to meet the needs of users and improve convenience.

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\*AIS: Automatic Identification Systems

In addition, we will promote measures using AIS information to prevent grounding and collision with bridges.

**B Enhancing weather information, etc.**

We will appropriately identify natural phenomena such as typhoons, gales, high waves, storm surges, fog, tsunamis, and volcanic eruptions that will affect maritime traffic, and endeavor to issue Emergency warnings, Warnings, and forecasts timely and appropriately, and to disseminate the information quickly, as well as endeavor to make qualitative improvements to this information.

Furthermore, observation facilities related to weather, tsunamis, volcanic phenomena, etc. will be appropriately developed, installed, and maintained, and we will share information with disaster risk reduction related organizations, and will improve observation, monitoring, and reporting systems using ICT. We also endeavor to spread meteorological knowledge through publicity activities and seminars, etc. to foster more effective utilization of such information.

**C Strengthening safety measures for abnormal weather conditions**

When there is a risk of danger to ship traffic due to abnormal weather or sea conditions such as typhoons, or maritime accidents, etc., warnings, safety guidance, recommendations, etc. shall be issued to ensure the safety of maritime traffic by having vessels take necessary measures.

**D Enhancing nautical safety information and improving convenience**

To prevent maritime accidents and promote safe and efficient navigation, nautical charts (paper and electronic) and nautical publications (sailing directions, etc.) should be accurately maintained. Appropriate means shall be taken to keep up to date, such as by providing necessary information with waterway reporting and electronic waterway reporting to keep these nautical charts, etc. updated, and by providing information urgently required for safe navigation, such as the presence of obstacles to navigation, by means of navigational warnings.

In particular, electronic nautical charts, sailing directions, etc. will be appropriately adapted in preparation for the planned implementation of new international standards.

In addition, efforts to ensure the safety of ship navigation will be made by using the MDA Situational Indication Linkages (MSIL), etc. to provide a variety of information online, including visual information on a map that illustrates text information on waterway notifications and navigation warnings, and vessel traffic volume.

Furthermore, in order to ensure safe navigation and efficient rescue in the event of a maritime disaster, the system for providing ocean current data through simulations and similar methods will be enhanced and strengthened.

**(4) Development of passenger terminals to accommodate elderly and disabled people**

In order to ensure the safety of users at ports and harbors, it is necessary to consider unique

factors such as the swaying of floating piers due to the effects of waves and the change in the slope of the passage due to differences in tidal levels. To this end, barrier-free design, such as the elimination of steps and the installation of tactile paving for the visually impaired, will be promoted so that all users, including the elderly and disabled, can use and move around the passenger terminals safely and with less physical burden.

## **2 Dissemination of Knowledge Regarding the Safety of Maritime Traffic**

In order to ensure the safety of maritime traffic, it is necessary to raise awareness of the prevention of maritime accidents not only among maritime personnel but also among marine leisure enthusiasts and the general public. Therefore, efforts will be made to promote the concept of maritime disaster prevention at every opportunity.

In addition, we aim to acquire and improve knowledge and skills that are more specific and effective, and that reflect the characteristics of various types of ships and the actual situation regarding maritime accidents.

### **(1) Disseminating the concept of prevention of maritime accidents**

Through campaigns to emphasize the prevention of maritime accidents (zero maritime accident campaign), etc., we will widely promote and enhance the concept of maritime disaster prevention. In addition, through seminars on prevention of maritime accidents and guidance given on ship, etc., we will encourage ship operators, etc. to acquire and improve their knowledge and skills relating to maritime accident prevention.

### **(2) Provision information and others to foreign vessels**

We will provide foreign vessels that are not familiar with the geography, etc. of the waters surrounding Japan with information necessary for navigational safety by visiting ships, making use of the internet, and cooperating with agents.

## **3 Ensuring Safe Operation of Ships**

In order to ensure the safe operation of ships, we will strive to prevent human errors in ship operations, improve the competency of sailors and marine transportation operators, conduct audits by safety management and seafarers labour inspectors, provide guidance and thorough implementation of measures to prevent the recurrence of accidents, and promote the evaluation of transportation safety management, as well as conduct oversight of the qualification requirements for crew members of foreign ships calling at ports in Japan.

### **(1) Prevention of human error**

Most ship accidents are principally caused by human error, such as inappropriateness of watchkeeping, improper maneuvering, and improperness of machine handling. In order to prevent such incidents from occurring, the following measures will be taken: establishing an environment for the practical use of MASS (Maritime Autonomous Surface Ship); promoting voluntary sailor education by operators; promoting the use and dissemination of technologies such as AIS installation; and providing information and raising awareness by taking

advantage of various opportunities such as ship visits and transport safety management evaluations.

In addition, we will promote the providing information using the internet, such as the Hazard Map of Marine Accidents.

**(2) Enhancement of ship operation management, etc.**

**A Strengthening guidance and supervision for passenger ship operators, etc.**

Audits will be conducted on passenger ship operators, etc., focusing on the status of compliance with the safety management regulations, and the contents of the safety management regulations will be enhanced and improved through audits in the event of an accident or incident. In addition, we will conduct effective audits by setting audit criteria that focus on specific areas corresponding to the circumstances of the accident. In addition, safety management and seafarers labour inspectors and senior ship inspectors will work together to provide guidance (on-site inspections) to ships, thereby enhancing and strengthening guidance and supervision.

**B Preventing the recurrence of serious accidents**

In the event of an accident involving a passenger ship, etc., appropriate measures to prevent recurrence will be drawn up based on the cause of the accident, and the measures will be thoroughly implemented through audits and guidance by a safety management and seafarers labour inspector.

If necessary, depending on the nature of accidents and the frequency of their occurrence, efforts will be made to raise awareness of accident prevention among businesses and general users by alerting them via business organizations and other channels.

With regard to collisions between high-speed vessels and underwater obstacles, the use of whale sighting information (whale hazard map), the refinement of obstacle detection systems, etc., and improvements in the shock-absorbing performance of seats will be taken into account, and thorough safety measures will be implemented in terms of both physical and social aspects.

The implementation of measures to prevent alcohol consumption, such as the use of alcohol detectors, will be promoted by providing thorough guidance on such measures, taking advantage of opportunities such as on-board guidance (on-site inspections) by safety management and seafarers labour inspectors.

**C Promotion of transportation safety management evaluation**

We will continue to implement transport safety management evaluations, in which the national government verifies the establishment and improvement status of passenger ship operators' safety management systems. In addition, through the assessment of transportation safety management, efforts will be made to raise awareness of disaster prevention among transport operators and to strengthen advance measures, etc. As well as strengthening transportation disaster management efforts, this will allow accurate

confirmation of transport operators' safety initiatives in light of the impact of infectious diseases and instill awareness on the part of operators regarding thorough compliance and observance.

- D Improving training standards for chief safety management officers and ship operation managers, etc.

Training standards will be improved by using the results of analysis of the latest accident cases to improve participants' knowledge and awareness of ship operation management and the ability of passenger ship crews and operators to respond in the event of an accident.

- E Promoting safety information disclosure

In order to enable users to make appropriate choices and to provide incentives for operators to promote safety measures, operators and the national government will, as appropriate to their respective roles, promote the disclosure of information on safety assurance mechanisms and accidents in passenger transport services.

### **(3) Ensuring qualifications of seafarers**

We will maintain and improve the knowledge and skills of seafarers by granting maritime licenses and renewing maritime licenses in accordance with the Law for Ships' Officers and Boats' Operators (Law No. 149 of 1951) in compliance with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (STCW Convention\*), and by conducting appropriate training for new seafarers and refresher training at each maritime education institution.

In addition, we will maintain and improve safety awareness of seafarers, etc. by conducting thorough audits by safety management and seafarers labour inspectors regarding the encouraging of pre-voyage inspections, properly implementing drills, securing a navigational watch arrangements, establishing an onboard patrol system, etc. under the Mariners Law (Law No. 100 of 1947).

### **(4) Promoting measures to prevent accidents involving seafarers**

In order to prevent maritime accidents caused by inadequate labour management on ships, etc. by developing a health and safety management system, etc., the Basic Plan for Prevention of Seafarer Accidents and the Implementation Plan for Prevention of Seafarer Accidents, which have been developed based on the Act on Promotion of Safety and Sanitation of Seafarers (Act No. 61 of 1967), will be steadily implemented to promote measures to prevent accidents involving seafarers.

### **(5) Ensuring safety through the pilot system**

We will properly administer the pilot licensing system and compulsory pilot system, which play roles in ensuring the safety of maritime traffic in traffic density area. In addition, we

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\*STCW Convention: The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978

aim to enhance the pilot system by promoting measures to stably secure and foster pilots with professional skills to guide ships safely and promptly.

**(6) Promoting supervision of foreign vessels**

Training, certification of qualifications and on-duty standards required of sailors are stipulated in international conventions such as the STCW Convention. However, in the seas around Japan, there have been a number of maritime accidents caused by ships that do not meet the standards of these conventions (substandard ships). Therefore, in order to prevent these maritime accidents and ensure the safety of ship navigation, the supervision of foreign ships (PSC<sup>\*</sup>) will be promoted in accordance with the relevant conventions. In addition, under the framework of the Tokyo MOU<sup>\*</sup>, and in cooperation with member states in the Asia-Pacific region, we will work to eliminate substandard ships by implementing effective PSC, such as by increasing the frequency of inspections for high-risk substandard ships.

**(7) Improving tsunami evacuation preparedness for passengers and ships**

Based on the fact that tsunamis during the Great East Japan Earthquake caused a great deal of damage to ships, and that the probability of a Nankai Trough earthquake occurring within the next 30 years is about 70% (as of January 1, 2012, according to the Ministry of Education, Culture, Sports, Science and Technology's Headquarters for Earthquake Research Promotion), the "A Handbook prepared as a tsunami evacuation manual for Vessel Operators" were drawn up in March 2014. In addition, in July 2016, the "Tsunami Response Sheet," a manual format that selects only the main points necessary for tsunami evacuation, was created so that even small and medium-sized businesses can easily create a manual, and in September of the same year, the "Tsunami Response Sheet" in foreign languages (English, Chinese, Korean, Russian, and Spanish) was created for foreign ships calling at ports in Japan.

**(8) Promoting the introduction of new technology**

We will work to improve the working environment and increase productivity by promoting the introduction of new technologies to coastal and other vessels, and thereby improve safety. In addition, when necessary, standards for new technology will be developed, and as technology progresses, reviews of boarding standards and streamlining of ship inspections will be carried out after ensuring safety through verification on actual ships.

**4 Securing the Safety of Vessels**

In order to ensure the safety of ships, we will, under the international cooperation system, improve the standards and inspection system for ships' structures and equipment, marine transportation of dangerous goods, and safety management systems, as well as promote the supervision of the structures and equipment of foreign ships calling at ports in Japan.

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<sup>\*</sup>PSC: Port State Control

<sup>\*</sup>Tokyo MOU: Memorandum of Understanding on Port State Control in the Asia-Pacific Region



### **(1) Maintaining ship safety standards, etc.**

In order to ensure the safety of ships, the IMO\* has been studying the development of safety standards for the structure and equipment of ships, and the Government of Japan will accurately respond to these trends and develop the necessary safety standards and inspection systems in order to respond to changes in circumstances such as technological innovation and diversification of maritime transportation.

In particular, we will participate in the development of a regulatory framework for MASS, fire safety measures for RORO passenger ships, and other new safety standards at IMO, and continue to work on studying these. In addition, as there is a growing social need for next-generation ships, the development of ships that use hydrogen and ammonia as alternative fuels is progressing. We will participate in the IMO's studies regarding the formulation of safety guidelines for the practical application of these fuels and the revision of international conventions related to the relevant safety standards, and will strive to make use of Japan's accumulated technical knowledge in these studies.

In addition, we will actively respond to international trends that contribute to high-quality maritime transportation by improving the safety of ships, such as the operation of the international database (EQUASIS\*) for disclosing information on the safety of each ship, with the aim of reducing the use of substandard ships.

In addition, guidelines that take into account the perspective of universal design will be distributed so that passenger ship operators can adapt smoothly to barrier-free passenger ships in accordance with the "Barrier-Free Act."

### **(2) Enhancing ship inspections**

Recent technological innovations, the increase in the number of ships with hull forms that differ from conventional designs in response to the diversification of marine transportation, and the tightening of international regulations have necessitated advanced, complex, and extensive inspections. In order to respond appropriately to such situations, we will maintain and improve the quality of Japan's ship inspection system in accordance with a quality control system based on ISO9001.

In addition, since many maritime accidents are caused by both physical and human factors, we will further ensure the safety of ships by providing onboard guidance (on-site inspections) on both these aspects during operation (when ships are in port), in addition to the conventional periodic inspections focusing on physical aspects. Senior ship inspectors and safety management and seafarers labour inspectors will work together in conducting onboard guidance (on-site inspections).

In addition, domestic regulations for the maritime transport of dangerous goods will be developed based on the international safety standards set by the IMO, and various pre-transit

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\*IMO: International Maritime Organization

\*EQUASIS: European Quality Shipping Information System

inspections and on-site inspections will be conducted on dangerous goods carriers to enhance the safety screening system and take all possible measures to prevent accidents in maritime transport.

Furthermore, the ISM Code\*, which establishes a comprehensive safety management system for ships and the companies that manage them, is extremely effective in preventing human error and establishing a corporate culture that emphasizes safety from the perspective of protecting human life at sea and the marine environment. For this reason, a scheme to certify the safety management systems voluntarily established by operators for coastal ships, which are not compulsory under the Code, is in operation, and we will continue to conduct audits of such systems.

### **(3) Promoting supervision of foreign vessels**

The structure and equipment of ships are stipulated in international treaties such as the SOLAS Convention\*, but maritime disasters due to substandard ships still occur in the waters around Japan. In the event of a serious accident, it may have a significant impact on human life and the marine environment. Therefore, in order to prevent these maritime accidents and ensure the safety of ship navigation, we will promote PSC based on the relevant treaties.

In addition, under the framework of the Tokyo MOU\*, and in cooperation with member states in the Asia-Pacific region, we will work to eliminate substandard ships by implementing effective PSC, such as by increasing the frequency of inspections for high-risk substandard ships.

## **5 Enhancing Safety Measures for Small Boats**

Since marine accidents caused by small vessels account for about 80% of all marine accidents, and many of these accidents are caused by human error, the relevant organizations should work together to promote efforts to raise awareness of safety among marine leisure enthusiasts and fishery personnel themselves.

### **(1) Promoting safety measures for small vessels**

#### **A Prevention of ship accidents due to human error**

Most ship accidents involving small vessels are principally caused by human error, such as inappropriateness of watchkeeping, improper maneuvering, improperness of machine handling, and poor maintenance of navigation equipment. In order to prevent such accidents, we will work to promote voluntary safety measures by small vessel operators, apply and disseminate technologies that contribute to accident prevention, and raise safety awareness through the provision of information.

#### **(A) Promotion of voluntary safety measures**

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\*ISM Code: International Safety Management Code

\*SOLAS Convention: The International Convention for Safety of Life at Sea

Small vessel operators are required to inspect hulls, engines, etc. before departure. To enable operators to conduct these inspections accurately and easily on their own, an easy-to-use checklist for pre-launch inspections will be distributed and its use will be promoted. In addition, a trouble-shooting manual will be distributed and its use promoted so that pilots will be able to take necessary measures themselves even if a problem occurs during sailing.

(B) Application and dissemination of technologies that contribute to prevention of accidents

We will continue to promote the use of AIS and other equipment in order to prevent collisions involving small vessels. In addition, in light of the rapid spread of smartphones in recent years, we will promote the spread of applications and systems that enable the use of smartphones to monitor the movements of other vessels and provide warnings against collisions.

(C) Effective providing information and reminders

In addition to taking advantage of opportunities such as on-board guidance, we will use the internet, such as the Maritime Information and Communication System (MICS) and the Hazard Map of Marine Accidents, to effectively provide safety information and raise awareness of safety among small vessel operators.

In particular, small vessels are inferior to large vessels in terms of seaworthiness and means of obtaining information. Therefore, in order to enable them to promptly recognize sudden changes in the weather and the presence of dangerous area, safety measures will be further strengthened by enhancing the provision of information through the use of smartphones and email delivery functions.

B Notifying and raising awareness of compliance requirements for small ship operators

In addition to publicity and awareness-raising of compliance requirements, etc. for small ship operators (e.g., pre-voyage inspection, lookout, etc.), we will improve the qualifications of small ship operators through the appropriate operation of the system for preventing violations of compliance requirements which was revised in FY2016, including adding violations of pre-voyage inspection and lookout requirements in the scope of administrative punishments, expanding the scope of those who have to take refresher courses due to their violations, and the enhancement of license renewal courses.

C Enhancement of the rate of wearing life jacket

With the partial amendment of the Enforcement Regulations of the Law for Mariners and Small Vessel Operators (effective as of February 1, 2018), captains are required to make passengers on the exposed decks of small vessels wear life jackets even apart from situations where they were previously required to do so (such as when riding on jet skis). With regard to violations of the obligation to wear a life jacket in accordance with the amendment, violation points will be assigned from February 1, 2022. Therefore, the

relevant ministries and agencies will continue to strengthen efforts to raise awareness of the effectiveness of wearing a life jacket and to provide thorough guidance on wearing a life jacket by taking advantage of various opportunities, such as the Maritime Accident Prevention Emphasis Campaign (Zero Marine Accidents Campaign), maritime accident prevention seminars, the Small Vessel Safety Campaign, and on-board guidance.

D Promoting accident prevention measures on rivers, etc.

In light of the causes of accidents in rivers and lakes, such as falling overboard and not complying with operating rules, all related parties will work together to inform leisure enthusiasts and fishers of the need to wear life jackets and comply with the operating rules established for each river and lake.

**(2) Promoting safety measures for pleasure boats**

A Pleasure boat safety measures

In light of the current situation, where accidents involving pleasure boats account for about 50% of all accidents, with engine failure being particularly common, and the fact that there are a certain number of accidents that cannot be prevented by pre-launch inspections, relevant ministries, agencies, private organizations, and volunteers will cooperate and collaborate to promote the recommendation of regular inspections and maintenance for users and raise awareness of the appropriate timing of engine maintenance through initiatives such as maritime accident prevention seminars, on-board guidance, public relations and educational activities, and patrols.

B Safety measures for mini boats

The number of accidents involving mini-boats (boats less than 3 meters in length and less than 1.5 kW in engine output, which do not require inspection or licensing) has been on the increase in recent years, and capsizing accidents are particularly common. Since most of these problems are caused by inattention to meteorological and hydrological conditions, the Water Safety Guide, which describes precautions for safe and secure enjoyment of mini boats, will be disseminated to improve the competency of users who do not have basic knowledge of the sea and the characteristics of mini boats.

C Safety measures for increasingly diverse and popular water activities

In recent years, water activities such as canoeing and SUP have become more diversified and popular. Since these water activities do not require licenses or inspections and are often engaged in by people who do not have basic knowledge of the sea, safety measures for these activities need to be addressed in the same way as safety measures for small vessels. Therefore, the content of the Water Safety Guide, drawn up through exchanges of views with relevant ministries and agencies and private organizations, will be enhanced and its widespread use promoted.

**(3) Promotion of safety measures for fishing boats, etc.**

Fishing vessels account for more than half of all marine accidents resulting in fatalities or

missing persons, and the proportion of fishing boat crew wearing life jackets is still not high. The majority of maritime accidents are caused by human error, such as inappropriateness of watchkeeping and impropriety of maneuvering. Given these circumstances, the relevant ministries and agencies will work together to promote safety measures for fishing boats, etc., by strengthening guidance on the prevention of marine accidents, especially encouraging the use of lookouts and the constant wearing of life jackets, through seminars for fishery personnel and on-board guidance.

#### **(4) Promotion of safety measures by reducing the number of abandoned boats**

##### **A Maintenance of boat parks, etc.**

In order to solve the problem of abandoned boats, which has become an issue in many places, and to promote the orderly use of public water areas such as ports and harbors, we will use public projects to further promote the development of boat parks, such as mooring facilities that make use of existing seawalls in calm water areas and land storage facilities that make use of public vacant land.

Regarding the development of private-sector and third-sector marinas, we will actively promote the introduction of private-sector dynamism, including “methods that draw on private-sector funds, management capabilities, and technical capabilities for the construction, maintenance, management, and operation of public facilities, etc.” (PFI\*).

In order to ensure the safety of pleasure boat activities and the orderly use of water areas, sufficient attention should be paid to the location of boat parks, etc. and the designation of activity areas for pleasure boats, as well as ensuring safety within boat parks, etc.

##### **B Development of “Fisharinas”**

In order to promote the orderly use of fishing ports by fishing boats and pleasure boats, etc., the development of facilities to accommodate pleasure boats and other vessels will be promoted.

##### **C Improvement of mooring and storage capacity and regulatory measures for abandoned boats**

In order to solve the problem of abandoned boats, in addition to improving mooring and storage capacity, the designation of areas where the abandonment of vessels, etc. is prohibited under the Port and Harbor Act (Act No. 218 of 1950) and the Act on Development of Fishing Ports and Grounds (Act No. 137 of 1950) will be actively promoted, taking into consideration tsunami and storm surge disaster prevention and landscape formation.

In addition, studies will be conducted regarding making it mandatory to secure storage space for pleasure boats, taking into account the status of mooring and storage capacity.

## **6 Maintaining Legal Order regarding Maritime Traffic**

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\*PFI: Private Finance Initiative

Legal order in maritime traffic will be maintained by providing guidance and enforcement against violations of relevant laws and regulations. In addition to enhancing guidance and enforcement regarding conduct on vessels in congested traffic routes, and implementing guidance and enforcement against crimes that may lead to maritime accidents, such as unlicensed operation and out-of-area navigation, guidance and enforcement will be strengthened, especially during periods when maritime transportation and marine leisure activities become more active, thereby maintaining law and order in maritime traffic.

## **7 Improving Rescue and First-aid Activities**

In order to reduce the number of fatalities and missing persons caused by maritime disasters, it is essential to obtain information on maritime disasters as early as possible, make highly accurate predictions of drift, deploy rescue services as early as possible, and strengthen search and rescue and emergency lifesaving capabilities.

To this end, we will shorten response time by using the mobility and high speed of helicopters to expand the mobile rescue system, improve the advanced emergency rescue system with paramedics and emergency workers, and promote the facilitation of rescue and emergency activities in cooperation with related organizations and private maritime rescue groups.

In addition, the newly developed Search Area Establishment Support Program, which is based on international standards, will be applied to enhance efficient and systematic maritime search activities.

Furthermore, we will promote the real-time monitoring of ocean currents, improve the data on ocean currents in maritime accident areas using rescue buoy data, etc., and further improve the accuracy of drift prediction by accumulating and analyzing the results of drift prediction programs.

Through these efforts, we aim to improve the overall rescue rate, including the rescue rate of persons who have fallen overboard from vessels of less than 20 tons, where the rescue rate is low.

### **(1) Obtaining maritime accident information as early as possible**

Taking into consideration the survivability of a person who has fallen overboard and the time required for rescue, the goal has been set to reduce the time from a marine accident occurring to the receipt of information by the Japan Coast Guard to within two hours, in order to rescue victims while they are still alive. However, the percentage of cases in which the Japan Coast Guard receives information within two hours (the “detection rate”) is about 80%, with accidents involving fishing vessels being the lowest at about 63%.

Hence, we will continue to provide the general public with guidance, education, and public relations activities regarding “the use of the emergency call number 118 and NET118 for people with hearing or speech disabilities,” “securing a means of communication using a waterproof cell phone, etc.,” “turning on the GPS function of a cell phone to determine the

location of a call in the emergency call information system” and “the use of portable distress warning signal transmitters to warn of distress in the event of a marine disaster.” In addition, we will provide guidance on-site to fisheries-related organizations and work to raise awareness of safety, especially among fishery personnel.

By promoting these measures, the Japan Coast Guard aims to increase its detection rate within two hours of a maritime disaster to 85% or more.

In addition, since early and accurate collection of information on maritime disasters is necessary for prompt and accurate maritime disaster rescue, we will participate in the MEOSAR\* system using mid-orbit satellites, which is being constructed as part of the Cospas-Sarsat System, which receives, analyzes, and distributes distress warnings from ships and aircraft, thereby establishing a global system for early acquisition of maritime disaster information.

## **(2) Enhancing rescue and emergency service systems**

It is essential to improve the rescue rate by getting rescue services to the scene as soon as possible after receiving information about a maritime disaster. Since many maritime disasters occur in coastal areas less than 20 nautical miles from shore, the rescue system using helicopters and emergency lifesaving personnel will be enhanced accordingly.

With regard to paramedics in particular, the scope and sophistication of the emergency lifesaving procedures they can perform are being expanded year by year. Therefore, we will promote the expansion of medical control systems and support systems that improve the skills of paramedics and guarantee the quality of the emergency lifesaving procedures they perform from a medical perspective.

In addition, by replacing and upgrading aging and obsolete patrol boats and aircraft, as well as improving speed and nighttime search capabilities, rescue and emergency services systems will be enhanced and strengthened, shortening the time required to reach the scene and conduct searches.

In addition, cooperation with related organizations will be sought to enhance and strengthen the offshore first-aid system, in which doctors provide prompt medical care to those who suffer injury or illness at sea.

For this purpose, we will enhance and strengthen regional mutual aid functions for marine disaster rescue among relevant ministries and agencies, local governments, and private marine disaster rescue organizations.

## **8 Promoting Victim Support**

With regard to the liability of shipowners, etc., for damages caused to third parties, etc., as a result of ship accidents, efforts will continue to be made to enhance the liability protection system for the protection of victims, including the conclusion of insurance contracts.

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\*MEOSAR: Mid-Earth Orbiting Search and Rescue

In addition, in order to deal with compensation for damages resulting from bodily injury or property damage caused by pleasure boats, we will take advantage of opportunities such as ship inspections to inform users of pleasure boats about pleasure boat insurance and promote the purchase of insurance.

In addition, in order to ensure support for victims of public transportation accidents, the Public Transportation Accident Victim Support Office established by the Ministry of Land, Infrastructure, Transport and Tourism will be responsible for (1) providing information in the event of a public transportation accident, and (2) coordinating with victims over the medium- to long-term from the time of the accident until they are able to lead a peaceful life again (responding to consultations from victims regarding mental and physical care, referrals to specialists, etc.). We will continue to steadily promote efforts to support victims of public transport accidents, such as building networks with related external organizations, holding forums to support victims of public transport accidents, and promoting the preparation of support plans for victims by public transport operators, while receiving advice from related parties.

## **9 Determining the Causes of Marine Accidents and Preventing Accidents**

### **(1) Determining the causes of accidents and preventing accidents**

In order to determine the causes of marine accidents and marine incidents more promptly and accurately, we Japan Transport Safety Board will improve investigation techniques by enhancing specialized training for the staff in charge of investigations, and will also improve investigation and analysis methods by developing new investigation methods using drones, etc. and utilizing the expertise and various analysis techniques obtained through past investigations of accidents, as well as the stock of accident investigation results such as comparative analysis of similar accidents.

Based on the results of the investigation of accidents, and in order to prevent them or reduce the damage in the event they occur, we will make recommendations to the Minister of Land, Infrastructure, Transport and Tourism or the parties involved with the cases as necessary, and contribute to the safety of maritime traffic by requesting required measures and actions to be taken by giving opinions to the Minister of Land, Infrastructure, Transport and Tourism or the heads of related government institutions.

In order to ensure that the results of past accident investigations are effectively applied by people involved in maritime affairs and lead to the prevention of maritime accidents, we will promote spread enlightening activities, such as publishing information magazines which present investigation reports in an easy-to-understand manner, rearranging them in accordance with the topics which the relevant organs have interest, and will further enhance the content and search functions of the investigation report database.

In addition, corresponding to changes in social conditions, such as the increasing severity of



natural disasters and labor shortages, utilization of our knowledge and stock of information will contribute to help improve the safety of ship operation.

With regard to the operation of the “Japan-Marine Accident Risk and Safety Information System (J-MARISIS)” which enables users to check investigation reports and risks in the sea area on a map on the website of us, the scope of countries that provide data such as investigation reports will be expanded, and the content will be further enhanced.

In accordance with the SOLAS Convention, we will contribute to the improvement of maritime traffic safety in the world by ensuring the investigation of marine accidents involving multiple countries, making safety recommendations as necessary, participating in consideration about the investigation of accidents at the III\*, the MAIIF\*, and the MAIFA\*, and exchanging information.

## **(2) Promoting analysis of marine accidents, etc.**

The Maritime Accident Analysis Center, established at the National Maritime Research Institute, will analyze the causes of maritime accidents by promptly analyzing information when they occur, and will also conduct detailed analysis of serious maritime accidents, including accident reconstruction using simulators and test tanks, etc., to support the government in planning measures to prevent recurrence, thereby reflecting the results in safety measures for maritime traffic.

## **10 Improving Studies and Research into Maritime Traffic Safety**

At the National Maritime Research Institute, methods for assessing the safety of advanced ships handling new cargoes and fuels will be developed, and based on the results of safety evaluations, a rational safety regulation system that ensures a balance between the improvement of ship safety and the burden on society will be developed, and measures to reflect this in safety standards and ship design will be studied.

In light of advancing ICT, etc., we will conduct technological research and development aimed at improving the accuracy of marine information, including the prediction of ocean currents, and establishing maritime traffic that improves safety, as well as technical investigation into obtaining small vessels' location information.

In addition, ICT-based navigation safety systems such as AIS are expected to be developed as a core system for the safety of marine traffic, and future strategies are being discussed by the IMO and other related organizations.

In particular, the VHF data exchange system (VDES\*), which dramatically increases the amount of data communication for navigation support compared to the current AIS, is positioned as the next generation AIS, and work is underway to develop it into an international

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\*III: Sub-committee on Implementation of IMO Instruments

\*MAIIF: Marine Accident Investigators' International Forum

\*MAIFA: Marine Accident Investigators Forum in Asia

\*VDES: VHF Data Exchange System

standard. Japan, which is promoting and leading this system, will continue to contribute to international standardization and study the possibility of introducing it domestically.

# Part 3 Air Traffic Safety

## 1. Achieving a society with no aviation accidents

- Reduce aviation accidents.
- Prevent safety issues that could lead to accidents.

## 2. Objectives Set in Air Traffic Safety

- The fatal accident rate and total loss accident rate are to be reduced to zero for scheduled flights operated by domestic air carriers.
- Twenty-one performance indexes related to the air traffic accident rate, serious incident rate, etc., are to be reduced by approximately 17% over five years.

## 3. Measures for Air Traffic Safety

<3 perspectives>

- (1) Deepening and sophisticating aviation safety measures
- (2) Promoting response to increased demand for air services and maintenance and improvement of safety
- (3) New developments in safety administration due to new technologies and industry growth

<9 Key Areas>

- (1) Further Promotion of State Safety Programme
- (2) Ensuring Safe Operation of Aircraft
- (3) Ensuring Aircraft Safety
- (4) Development of Air Traffic Environment
- (5) Safety Measures for Unmanned Aircraft
- (6) Enhancing rescue and emergency activities
- (7) Improving Rescue and First-aid Activities
- (8) Determining the Causes of Aircraft Accidents and Preventing Accidents
- (9) Promoting R&D regarding Air Traffic Safety

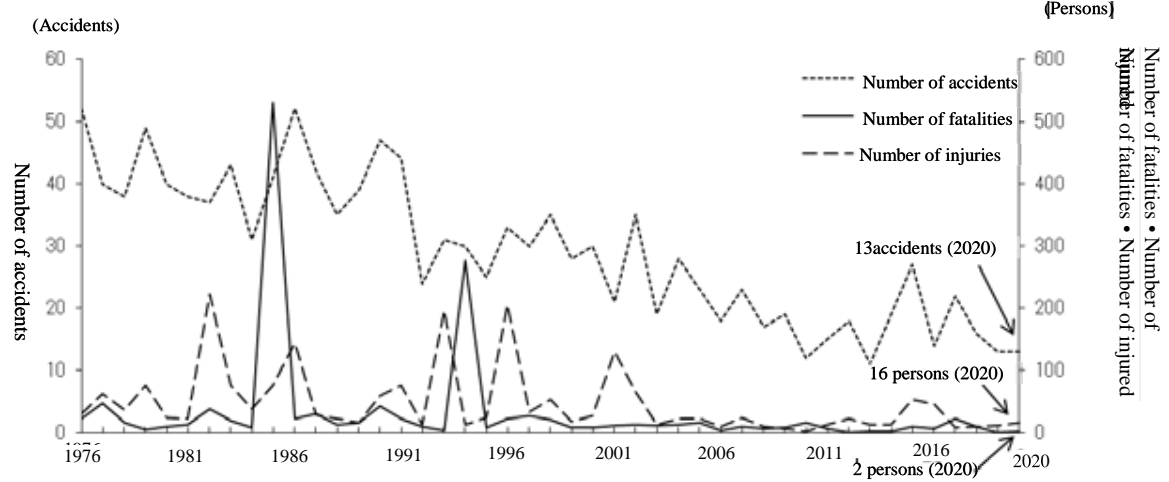
## **Section 1 Achieving a society with no aviation accidents**

In order to reduce the number of aviation accidents and to prevent safety issues that may lead to accidents, we will steadily implement measures for air traffic safety and ultimately aim for a society with no aviation accidents.

In order to ensure the safety of air traffic and to prevent the occurrence of accidents, the government has promoted safety supervision, the development of air navigation facilities, the modernization of air navigation services, the improvement of airport facilities, and other measures. As a result of these measures, the number of civil aviation accidents in Japan has been on a long-term downward trend, while keeping pace with the increase in air traffic. Looking at the breakdown of accidents that occurred in 2020, 9 out of 13 were accidents involving small aircraft, showing a trend that they account for more than half. On the other hand, there has been no fatal passenger accident involving Japan's specified domestic air carriers (domestic air carriers that operate air transport services using aircraft with more than one hundred passenger seats or a maximum takeoff weight of more than 50,000 kilograms) since the crash of Japan Airlines Flight 123 on Mt. Osutaka in 1985.

However, accidents involving large aircraft, the mainstay of the air transport business, continue to occur, although at a rate of a few per year, mainly due to turbulence-induced aircraft shaking, and there are signs that the downward trend is leveling out. In addition, there have been serious incidents and safety issues caused by human error, aircraft malfunctions, etc., including the case where ANA Wings flight 1831, which took off from Akita Airport and landed at New Chitose Airport on January 19, 2017, overran and stopped in a grassy area covered with snow. In addition to the above, there have been other aviation accidents involving foreign airlines in Japan, such as a serious incident involving Korean Air Flight 703, which took off from Incheon and landed at Narita International Airport in June 2018, in which the rear axle of the right main landing gear broke off, causing the aircraft to stop on the taxiway during its subsequent ground run and preventing it from continuing taxiing.

## Trends in the number of accidents, fatalities and injuries due to air traffic accidents



- Notes:
1. Data by Ministry of Land, Infrastructure, Transport and Tourism.
  2. Figures are as of the end of December of each year.
  3. Figures include accidents related to Japanese aircrafts occurred outside of Japan.
  4. Figures include accidents related to foreign aircrafts that have occurred in Japan.
  5. The number of casualties, number of fatalities and the number of accidents do not include those in-flight natural deaths, and deaths due to an abusive act inflicted on self or others.
  6. The number of fatalities include the number of deaths within 30 days and missing persons.

## Section 2 Objective Set in Air Traffic Safety

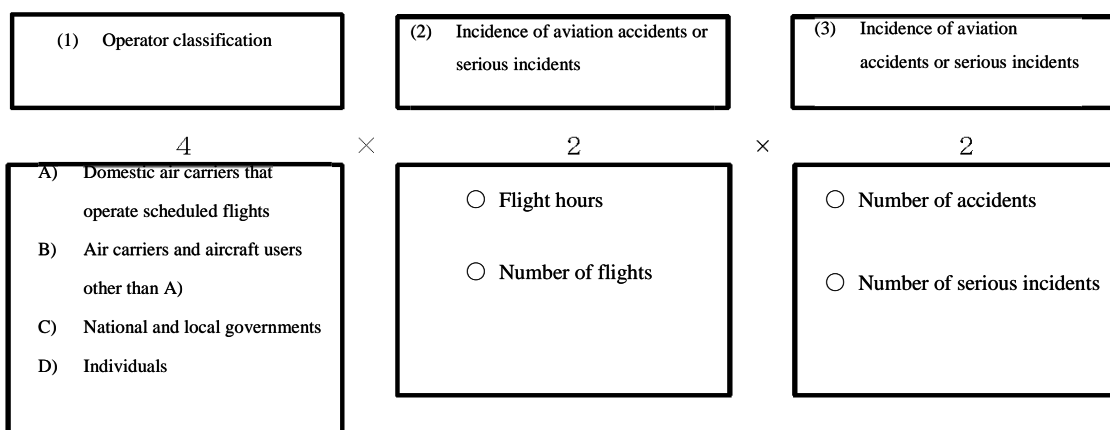
### I Approach to the setting of objectives

In our efforts to achieve a society without aviation accidents, we must make particular efforts to reduce the number of “fatal accidents” and “total loss accidents,” taking into account the value of life and the significant impact on society when a serious accident occurs. On the other hand, the fact that there have been no fatal accidents involving passengers on Japan’s specified domestic air carriers for about 30 years is the result of the unremitting efforts of all concerned to ensure the safety of air transport services, and we must continue to make untiring efforts to maintain this “zero fatal accidents” record. In view of the above, a target of reducing the fatal accident rate and total loss accident rate to zero shall be set for scheduled flights operated by domestic air carriers that are used by unspecified large numbers of people.

In addition to this, indicators related to critical consequences for the safety of civil aviation will be established. In setting the indicators, the following perspectives will be used to subdivide the aviation accident occurrence rate and the serious incident occurrence rate, etc. into 21 indicators: the areas of safety concern shall be identifiable, the indicators shall be objectively measurable, and the indicators shall be comparable with international statistics.

(Safety indicators focusing on operators)

- (1) (A) Domestic air carriers that operate scheduled flights  
 (B) Operators other than (A) who have an air transport service license or aircraft use service license  
 (C) National and local governments  
 (D) Individuals For each of the four categories
- (2) For flight hours and number of flights
- (3) Set the aviation accident rate and serious incident rate (16 indicators in total).



(Safety indicators focusing on traffic control)

Rate of aviation accidents and serious incidents that are related or potentially related to traffic control (per number of cases handled by control) (2 indicators)

(Safety indicators focusing on airports)

- \* Incidence of aviation accidents that were caused by or may have been caused by facilities or operations under the control of the airport facility manager
- \* Incidence of serious incidents that were caused by or may have been caused by facilities or operations under the control of the airport facility manager
- \* Occurrence of incidents of injury or death of persons or damage to aircraft resulting from ground operations or ground facilities or objects in restricted areas.

(3 indicators)

These indicators must be set in a way that they can be continuously compared over a certain period of time, and we will endeavor to reduce them by approximately 17% over a five-year period. The evaluation of these objectives should be consistent with the evaluation of safety indicators and targets in the “State Safety Programme” described below.

## **II Objectives of the 11th Plan**

Based on the above, the goals for air traffic safety are as follows.

- (1) The fatal accident rate and total loss accident rate are to be reduced to zero for scheduled flights operated by domestic air carriers.**
- (2) Twenty-one performance indexes related to the air traffic accident rate, serious incident rate, etc., are to be reduced by approximately 17% over five years.**

## **Section 3 Measures for Air Traffic Safety**

### **I Perspectives in Considering Future Measures for Air Traffic Safety**

Regarding safety oversight, the ICAO\* requires the implementation of State Safety Programme (SSP) that not only aims to ensure compliance with regulations, but also to improve safety by measuring and managing risks based on indicators. In response to this, Japan has also introduced an SSP, in which the government sets safety target indicators for the entire aviation industry and a management plan to achieve them, agrees on individual safety target indicators with each service provider, and promotes efforts to improve safety by continuously monitoring, supervising, and auditing the SMS\*. In the future, the SSP will be revised in a timely manner in response to changes in its implementation status, such as the achievement of safety goals, to further improve the depth and sophistication of aviation safety measures. Since the end of FY2019, flexible measures have been taken in consideration of the impact of the outbreak of COVID-19, such as postponing some audits and inspections or conducting them by means alternative to face-to-face, such as written documents. However, in the future, in order to achieve an early recovery of air travel demand, it is necessary to implement safety management in full cooperation with service providers according to the situation, while maintaining levels of safety.

In addition, since about 90% of foreign visitors to Japan come by air, aviation, especially international aviation, is expected to play an extremely important role. In particular, the government is aiming for a high of 60 million foreign visitors to Japan by 2030, and it is important to respond to the increasing demand for air travel and to maintain and improve the safety of the air traffic system in an integrated manner by taking measures such as expanding airport capacity and drastically reorganizing airspace.

Furthermore, new initiatives are underway, such as the rapid expansion of the use of unmanned aerial vehicles and the study of the social implementation of the “flying car,” which is expected to be an innovative means of transportation in the sky, and it is an urgent issue to develop new safety administration in line with the development of new technologies and industries, such as the development of technologies to improve safety.

### **II Measures to Be Taken**

#### **[Priority Measures and New Measures in the 11th Plan]**

- Further promote State Safety Programme (1)
- Establish crew qualification standards and operational standards, etc., for ensuring safe operations (2 (1))
- Ensure accurate inspection of aircraft (3 (2))
- Respond to increasing aviation demand and enhance services (4 (1))
- Safety measures for unmanned aircraft, etc. (5)

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\*ICAO: International Civil Aviation Organization

\*SMS: Safety Management System



## **1 Further Promotion of State Safety Programme**

By introducing the SSP and implementing the following measures, in addition to the existing safety supervision based on compliance with laws and regulations, the national government will further promote aviation safety measures by setting safety indicators and target values to manage risks and collecting, analyzing, and sharing safety information through the mandatory and voluntary reporting systems.

### **(1) Strengthening SMS for business providers**

We will provide guidance, supervision, and advice in close cooperation with business providers so that they can accurately set safety indicators and safety target values based on past performance. In doing so, indicators and target values that are more directly related to efforts to improve safety shall be set, encouraging improvement in the quality of SMS.

### **(2) Formulation / review of aviation regulations relating to safety, etc.**

In order to improve the safety of civil aviation, we will reflect, in a timely and appropriate manner, safety information obtained, trends in international standards, status of technological development, etc., in the necessary standards, etc. relating to civil aviation safety. In addition, by translating and distributing guidance materials produced by international organizations, etc., it will be possible to promote the use of such materials by those involved in domestic aviation activities, and to improve safety activities.

We will also participate in discussions at international conferences, etc., and contribute to the revision of international standards and the enhancement of guidelines based on the knowledge gained through our efforts in Japan. Furthermore, with regard to turbulence-related incidents, we will continue to work together with air carriers to analyze the causes of the incidents and to study further preventive measures. Regarding runway safety, which is a priority initiative of ICAO, we will encourage the establishment of new systems and activities by the parties concerned.

### **(3) Strengthening audits, etc. of business providers**

Audits, inspections, etc. of business providers will be conducted on a regular basis and as needed to ensure that the business is being carried out properly. In doing so, ongoing initiatives will be undertaken, such as setting priority areas for audits according to the risk trends obtained from the analysis of safety information, conducting audits as needed, providing strict guidance and supervision to prevent the recurrence of inappropriate situations at service providers, and enhancing safety measures in accordance with each service provider's characteristics.

### **(4) Collection and analysis of safety information, etc.**

#### **A Collection of safety information**

In order to prevent the recurrence of safety hazards and to help implement preventive measures, we will promote both a mandatory and a voluntary reporting system for safety information.

With regard to the mandatory reporting system, as well as requesting consistent

reporting by providing guidance and advice to service providers, we will review the aviation safety authorities' framework to deal with cross-sectoral situations.

Regarding the voluntary reporting system, in order to collect a wide range of safety information, we will make use of every opportunity to announce and publicize the system, such as working with business providers and those engaged in aviation activities. In addition, the recommendations from the voluntary reporting system management office will be put to effective use by the aviation safety authorities to improve the operation of the system.

**B Analysis of safety information, etc.**

Safety information, etc., reported by service providers will be analyzed based on perspectives from each of the fields of air transport, airports, and traffic control, necessary measures will be discussed and reviewed, and the results will be shared appropriately with each service provider.

In order to enable safety measures to be taken in accordance with safety-related risks, we will undertake studies on the evaluation and analysis methods, including understanding of the distribution of such risks. In addition, based on global trends, detailed information will be shared and reflected in safety measures in accordance with trends and characteristics of the categories of situations that pose a safety hazard.

When publishing the results of analysis of safety information, consideration will be given to the creation of an environment that facilitates reporting by service providers, and efforts shall be made to disseminate information in order to deepen the public's accurate understanding of aviation safety.

**(5) Fostering a culture of safety and strengthening safety supervision**

**A Fostering a culture of safety**

By conducting safety audits, workshops, seminars, etc. for those involved in aviation activities, we will promote the dissemination of expertise, sharing of safety information, and exchange of opinions, while guidance and supervision of small aircraft operators will be enhanced through the Pilot Competency Assessment system, etc. In addition, we will promote the development of a culture of safety, including the provision of necessary information and education to the public.

**B Strengthening safety supervision**

Personnel who conduct audits and inspections of service providers, etc. shall undergo training to improve their abilities, allowing them acquire and maintain the knowledge and skills they require. At the same time, the aviation safety authorities will conduct a campaign to improve operations.

**2 Ensuring Safe Operation of Aircraft**

**(1) Establish crew qualification standards and operational standards, etc., for ensuring safe operations**

In order to ensure the development of air transportation while ensuring safety, it is vital to secure a stable supply of pilots with sufficient skills. Therefore, we will promote efforts to train and secure pilots, including the appropriate operation and necessary review of various systems that contribute to the improvement of skills, such as skill certification.

We will continue to monitor trends at ICAO and in other countries with regard to new technologies and methods for aircraft operation (such as the widespread use of unmanned aircraft, operation procedure using new communication services such as satellites, and scientific and systematic management methods for crew fatigue), and reflect them appropriately in domestic operating standards.

In light of a series of inappropriate incidents involving pilots drinking alcohol from 2018 to 2019, and the fact that aviation accident investigations revealed that pilots had not declared their medical history and medicines at the time of aviation medical examinations, efforts shall be made to improve pilots' daily health management (including appropriate education on alcohol consumption ) and to disseminate knowledge that contributes to the proper administration of medical examinations (including knowledge on diseases and medicines that affect aviation operations ). In addition, periodic audits and guidance should be conducted on airlines' health management systems. Furthermore, we will improve and harmonize skill standards by enhancing the content of training sessions for doctors who conduct physical examinations of pilots (hereinafter referred to as "designated doctors") and by strengthening on-site inspections of designated aviation medical examination organizations to which designated doctors belong.

## **(2) Promotion of safety measures for transporting dangerous goods**

In order to deal with the increase in the volume of radioactive materials and other dangerous goods transported by air, a result of progress in medical technology and the development of the chemical and battery industries, as well as the increasing diversity of the materials transported, ICAO and the IAEA\* are currently studying the development and strengthening of international safety standards for the transportation of dangerous goods, and Japan will actively participate in this through efforts such as technical proposals on transportation standards. In addition, the necessary domestic standards will be established based on these developments.

In addition, all parties involved in the air transport of dangerous goods, including the owners of the goods, shall be given thorough education and training on dangerous goods and guidance on managing their transport.

Furthermore, through government publicity campaigns and other means, we shall seek to inform and educate the public about the rules concerning dangerous goods in passenger baggage.

## **(3) Promotion of safety measures for small aircraft, etc.**

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\*IAEA: International Atomic Energy Agency

In order to prevent accidents involving small aircraft, an assessment system for pilot competency has been in effect since 2014, requiring pilots to have undergone an examination within two years to ensure that they maintain the skills and knowledge required to control the aircraft during takeoff and landing and during emergencies. The content of the oral examination under the system will be revised as appropriate based on recent cases, etc., in order to maintain pilot skill through said system.

In addition, in order to ensure that pilots and mechanics of small aircraft comply with laws and regulations and related rules, receive thorough training, and accurately identify weather conditions, safety seminars will be held in cooperation with related organizations. Furthermore, guidance will be provided to operators of small aircraft as necessary in the event of accidents or serious incidents.

We will monitor the actual status of small aircraft use, and strive to examine and enhance detailed safety measures in accordance with a wide range of flight patterns.

In addition, we will conduct demonstration tests by installing a simple FDM \* device on a small aircraft, and analyze the data obtained to study how to utilize it and promote wider application.

Moreover, after verifying whether the safety measures implemented to date have led to a reduction in accidents, more effective and efficient measures will be implemented while specifying the issues, standards, and timing to be achieved through said safety measures.

#### **(4) Implementation of transportation safety management evaluations**

We will continue to implement transportation safety management evaluations, in which the government verifies the establishment and improvement of air transport operators' safety management systems. In addition, through the evaluation of transportation safety management, efforts will be made to raise awareness of disaster prevention among transport operators and to strengthen advance measures, etc. As well as strengthening transportation disaster prevention efforts, this will allow accurate confirmation of transport operators' safety initiatives in light of the impact of infectious diseases. In addition, efforts to raise awareness of the need for thorough compliance by businesses, such as in cases involving alcohol, will be accurately confirmed.

#### **(5) Ensuring the safety of foreign aircraft**

In addition to enhancing and strengthening on-site inspections (ramp inspections) of aircraft operated by foreign airlines flying into Japan, in the event of an accident or serious incident involving a foreign aircraft in Japan, the aviation safety authorities of the countries concerned and the foreign airlines flying into Japan will be requested to investigate the cause and prevent recurrence as necessary. In addition, efforts will be made to strengthen cooperation with the aviation authorities of other countries by promoting the exchange of information on aviation safety.

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\*FDM: Flight Data Monitoring

#### **(6) Improvement of meteorological information, etc. relevant to air traffic**

We appropriately identify natural phenomena such as weather, earthquakes, tsunamis, and volcanic eruptions that will affect air traffic, and endeavor to issue Emergency warnings, Warnings, and forecasts timely and appropriately, and to disseminate the information quickly, as well as endeavor to make qualitative improvements to this information.

In addition, observation facilities related to weather, earthquakes, tsunamis, volcanic phenomena, etc. will be appropriately developed and installed to improve observation and monitoring systems.

### **3 Ensuring Aircraft Safety**

#### **(1) Development of technical standards to ensure the safety of aircraft and components**

We develop safety standards including aircraft in response to technological progress, and conduct research on technologies that could contribute to improvements in safety. We also collect and analyze information on the safety of Japanese aircraft and information on safety assurance obtained from foreign governments, foreign manufacturers, etc., and provide to the parties concerned.

#### **(2) Performing proper inspections of aircraft**

We will enhance the aircraft inspection system by enhancing inspections of aircraft design including type certification and providing guidance and oversights to private operators who confirm compliance with standards in place of government inspections. As a State of design and manufacturing, we will conduct appropriate and smooth examinations of domestically produced aircraft for compliance with safety and environmental standards, and will take appropriate measures to ensure that safety is maintained and continued after the aircraft enters operation.

#### **(3) Implementation of accurate examination of aircraft operation and maintenance systems**

In order to ensure the necessary operation and maintenance systems for air carriers even in the recent challenging circumstances, examinations, guidance and supervision of aircraft operation and maintenance will be carried out accurately.

### **4 Development of Air Traffic Environment**

#### **(1) Respond to increasing aviation demand and enhance services**

##### **A Drastic reorganization of domestic airspace**

The government is aiming for the number of foreign visitors to Japan to reach the high level of 60 million by 2030, and it is necessary to make systematic development efforts that will contribute to strengthening international competitiveness and enhancing the functionality of airports in the Tokyo metropolitan area. Drastic restructuring of domestic airspace will be conducted in order to improve control processing capacity while maintaining safe and efficient operations. Specifically, (1) the vertical separation

of air traffic control airspace and (2) the integration of airspace around multiple airports (terminal airspace) will be steadily promoted to improve air traffic control processing capacity.

- B Improvement of functions of the integrated air traffic control information processing system, etc.

In order to meet the increasing demand for air traffic control by improving the control processing capacity, the integrated air traffic control information processing system will be improved in terms of both its hardware and software functionality.

- C Development of the operating environment for small aircraft

In order to allow stable operation of small aircraft in low altitude airspace, studies will be conducted on using Instrument Flight Rule to lower the minimum route altitude of existing airways, to establish new airways with a lower minimum route altitude, and to establish a heliport approach and departure procedures.

In addition, in order to prevent accidents such as contact with power lines at sea or in mountainous areas, we will continue to provide property information to operators.

- D Enhancement of education for ANSP(Air Navigation Service Provider) Personnel

In addition to carrying out the drastic reorganization of the domestic airspace, in order to properly address the introduction of new technologies and methods, training systems will be strengthened by preparing the necessary training equipment and introducing internationally standardized training methods, such as clarifying the achievement objectives and evaluation methods of training exercises.

- E Introduction of new technologies and methods

In order to improve the efficiency of aircraft operation and increase the availability of aircraft in bad weather conditions, for airports that do not have instrument landing systems ILS\* or have restricted approach routes due to terrain, etc., we will introduce GPS-based navigation systems with high navigation accuracy (RNAV\*) or implement approach procedure with vertical guidance (LPV\*) that provide improved horizontal and vertical accuracy using a geostationary satellite navigation augmentation system (SBAS\*). In addition, a ground-based satellite navigation augmentation system (GBAS\*), which enables the setting of highly accurate and flexible approach procedures, will also be introduced.

- F Enhancement of flight inspection systems

In order to facilitate the introduction of operation methods with high navigational accuracy, such as an approach using SBAS-based LPV and GBAS, a flight inspection

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\*ILS: Instrument Landing System

\*RNAV: Area Navigation

\*LPV: Localizer Performance with Vertical guidance

\*SBAS: Satellite-based Augmentation System

\*GBAS: Ground-based Augmentation System

and validation system tailored to these procedures will be established.

G Expansion of electronic terrain / obstacle data provision

In order to improve the convenience and quality of information for aircraft operators, basic information necessary for aircraft operation, such as terrain and obstacles around airports, will be provided in the form of digital data, and the number of eligible airports will be expanded.

H Efforts to build an air traffic system for the future

In order to ensure international interoperability, respond to long-term increases in aviation demand and global environmental issues, and further improve safety, we will strive to implement a long-term vision for an air traffic control system for the future (CARATS\*) in cooperation with ICAO and other countries.

I Development of hub airports, etc. in metropolitan areas

In order to meet the increasing demand for domestic and international aviation, the development of hub airports in metropolitan areas will be promoted as a top priority, and facilities will be improved to ensure the safe and smooth operation of aircraft. As for general airports, the infrastructure of the aviation network will be strengthened by enhancing airport gateway functions, such as the runway expansion project at Fukuoka Airport and the international terminal area reorganization project at Naha Airport, thereby stably securing the regional aviation network. In addition, countermeasures against the aging of airports will be steadily implemented to ensure the safe and stable operation of aircraft.

In addition, in order to ensure the safety of passengers, we will continue the introduction of barrier-free design in air passenger terminal facilities and aircraft, such as the elimination of steps and the installation of facilities to provide flight information, in consideration of the safety of the elderly and people with disabilities, and universal design will be promoted from the perspective of realizing comprehensive and general environmental improvements.

**(2) Promoting the development of facilities for the safety of air traffic**

A Expanding the use of data link communication

In order to prevent human errors caused by misspeaking and mishearing on the part of air traffic controllers and pilots that occur with voice communication, data link communication, which is currently used in offshore airspace and on the ground (before departure), will be introduced into the airspace of air routes.

B Enhancement of air route surveillance functions

In order to further ensure safety in the air route airspace, a part of the air route surveillance radar will be shifted to a new type of high-precision surveillance equipment

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\*CARATS: Collaborative Actions for Renovation of Air Traffic Systems

(air route WAM\*, etc.), and will be linked with the current secondary radar to build a high-precision and high-reliability air route surveillance network that takes advantage of the features of each type.

### **(3) Promoting safety measures for airports**

#### **A Promotion of measures against accidental runway entry**

In order to prevent accidental runway entry due to human error, etc., we will continue to work to prevent inconsistencies in communication between controllers and pilots, such as establishing rules for pilots to repeat back control instructions.

In addition, information on accidental runway entry incidents will be shared across the fields of air transport, traffic control, and airports. Analysis, deliberation and consideration of necessary countermeasures will be conducted based on the respective viewpoints, and the results will be shared appropriately with each service provider.

#### **B Steady implementation of airport maintenance**

To ensure that runways and other facilities function in good condition at all times, the extent and causes of deterioration and damage will be determined through periodic inspections, and aging facilities will be efficiently and effectively renovated and improved to support safe aircraft operation.

#### **C Strengthening of disaster countermeasures at airports**

In the event of a major natural disaster, airports play a major role in maintaining the aviation network and ensuring the continuity of economic activities in the surrounding area as a transportation base for emergency supplies and personnel. We will continue to strengthen our disaster countermeasures in order to ensure the maintenance of the aviation network in the event of a disaster.

##### **(A) Strengthening of disaster response capabilities**

In accordance with the BCPs\* developed by each airport for the purpose of handling stranded passengers and quickly restoring facilities in the event of a disaster, efforts will be made to respond to disasters in cooperation with airport stakeholders and access operators, and to strengthen the effectiveness of the BCPs by conducting drills, etc.

##### **(B) Promotion of airport infrastructure resilience**

For airports that are important for air transportation, we will improve the resilience of airport facilities such as basic facilities and control facilities in order to secure their functions as emergency goods transportation bases in times of disaster, to maintain the aviation network and ensure the continuity of economic activities in the surrounding area, and to ensure the safety of aircraft in flight.

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\*WAM: Wide Area Multilateration

\*Response plan (BCP) developed by each airport: An airport business continuity plan (A2-BCP) that specifies the target time for maintaining airport functions as a whole and for early recovery, as well as the division of roles among stakeholders.



## **5 Safety Measures for Unmanned Aircraft**

### **(1) Safety measures for Unmanned Aircraft, etc.**

In order to facilitate unmanned aircraft flights over populated areas without assistance, we will study and develop systems for aircraft certification, pilot licenses, and operation management rules. In addition, we will work to ensure the smooth operation and establishment of a registration system for Unmanned Aircraft by developing an online system to process a large number of applications quickly and smoothly. Furthermore, we will continue to participate in the study of international standards for Unmanned Aircraft, etc., which are being studied internationally, and promote the development of domestic rules.

### **(2) Safety measures for “Advanced Air Mobility”**

In order to realize the social implementation of the “Advanced Air Mobility”, we will closely monitor the trends in other countries and promote safety assurance in terms of aircraft safety standards, pilot skill certifications, flight safety standards, etc., while striving for international harmonization. In addition, through the “Public-Private Council for the Air Transportation Revolution,” we will accelerate discussions in the public and private sectors based on the “Roadmap towards Air Transportation Revolution” and implement the necessary environmental improvements.

## **6 Improving Rescue and First-aid Activities**

### **(1) Development of a search and rescue system**

In order to carry out swift and accurate search and rescue operations in the event of an aircraft being in distress or missing, we will establish not only stronger cooperation between the rescue coordination headquarters and related government agencies, but also a search and rescue system that works in cooperation with search and rescue organizations in neighboring countries.

### **(2) Strengthening firefighting and emergency medical systems**

The fire-fighting systems of airports established and managed by the government will be enhanced and strengthened in accordance with international standards, including the deployment of chemical fire trucks. Similarly, for airports established and managed by airport companies or local governments, airport managers should be instructed to make efforts to improve firefighting facilities.

With regard to emergency medical systems at airports, the deployment of medical equipment and materials necessary for emergency medical activities will be conducted in accordance with the annual plan, and cooperation with related medical institutions will be strengthened so that emergency medical activities can be conducted accurately and smoothly.

In addition, airport administrators are to promote the establishment of cooperative partnerships with relevant organizations, such as the fire department of the municipality where the airport is located, in order to ensure prompt and accurate firefighting and emergency services in case of an accident. We will also conduct awareness-raising activities

for airport employees on first aid, including cardiopulmonary resuscitation and the use of automated external defibrillators (AEDs).

## **7 Promoting Victim Support**

In response to the incidence of accidents such as private aircraft crashing into residential areas after taking off from airports and causing casualties among residents, since 2017, measures have been in place to ensure that private aircraft are not flown without insurance by confirming that they have aviation insurance (third party liability insurance) for the protection of victims when they are used at airports managed by the government. Similar measures are requested at airports other than those managed by the government.

In addition, in order to ensure support for victims of public transportation accidents, the Public Transportation Accident Victim Support Office established by the Ministry of Land, Infrastructure, Transport and Tourism will be responsible for (1) providing information in the event of a public transportation accident, and (2) coordinating with victims over the medium- to long-term from the time of the accident until they are able to lead a peaceful life again (responding to consultations from victims regarding mental and physical care, referrals to specialists, etc.). We will continue to steadily promote efforts to support victims of public transport accidents, such as building networks with related external organizations, holding forums to support victims of public transport accidents, and promoting the preparation of support plans for victims by public transport operators, while receiving advice from related parties.

## **8 Determining the Causes of Aircraft Accidents and Preventing Accidents**

In order to determine the causes of aircraft accidents and aircraft incidents (aircraft serious incidents) more promptly and accurately, we Japan Transport Safety Board will improve investigation techniques by enhancing specialized training for the staff in charge of investigations, and will also improve investigation and analysis methods by developing new investigation methods using drones, etc. and utilizing the expertise and various analysis techniques obtained through past investigations of accidents, as well as the stock of accident investigation results such as comparative analysis of similar accidents.

Based on the results of the investigation of accidents, and in order to prevent them or reduce the damage in the event they occur, we will make recommendations to the Minister of Land, Infrastructure, Transport and Tourism or the parties involved with the cases as necessary, and contribute to the safety of air traffic by requesting required measures and actions to be taken by giving opinions to the Minister of Land, Infrastructure, Transport and Tourism or the heads of related government institutions.

In order to ensure that the results of past accident investigations are effectively applied by people involved in aircraft affairs and lead to the prevention of aircraft accidents, we will

promote spread enlightening activities, such as publishing information magazines which present investigation reports in an easy-to-understand manner, rearranging them in accordance with the topics which the relevant organs have interest, and will further enhance the content and search functions of the investigation report database.

In addition, corresponding to changes in social conditions, such as the increasing severity of natural disasters and labor shortages, utilization of our knowledge and stock of information will contribute to help improve the safety of ship operation.

In accordance with the Convention on International Civil Aviation, we will contribute to the improvement of air traffic safety in the world by ensuring the investigation of aircraft accidents involving multiple countries, making safety recommendations as necessary, participating in consideration about the investigation of accidents by the ICAO AIGP\*, the ISASI\*, and the AsiaSASI\*, and exchanging information.

## **9 Promoting R&D regarding Air Traffic Safety**

National Research and Development Agency and other research and development organizations (hereinafter referred to as “research and development organizations”) shall promote (1) research and development on improving the safety and efficiency of aircraft operations, (2) research and development on reducing the environmental impact of aircraft operations, and (3) research on airport civil engineering facilities such as runways for safe takeoff and landing of aircraft, as well as conducting comprehensive research and development by strengthening the systems for liaison and coordination between related research and development organizations.

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\* AIGP: Accident Investigation Panel

\* ISASI: International Society of Air Safety Investigators

\* AsiaSASI: Asian Society of Air Safety Investigators