

GOVERNMENT STATUS REPORT OF JAPAN

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ABSTRACT

The situation of road traffic accidents in Japan remains serious. In order to tackle the situation, Japan has been actively implementing initiatives to improve motor vehicle safety such as reinforcing safety regulations, new car assessment program (NCAP) and promoting advanced safety vehicle (ASV) project. Japan has also been promoting activities under the world forum for the harmonization of vehicle regulations (WP29) to facilitate the international harmonization of motor vehicle regulations and the mutual recognition of certification.

TRENDS OF THE ROAD TRAFFIC ACCIDENTS IN JAPAN

The annual number of traffic accident fatalities in Japan where people died within 24 hours of an accident hit a peak of 16,765 in 1970, and then started to steadily decrease in the next year, dropping by almost half to 8,466 in 1979. Later, the number took an upward turn and recorded 11,451 in 1992, and then again turned downward in the next year,

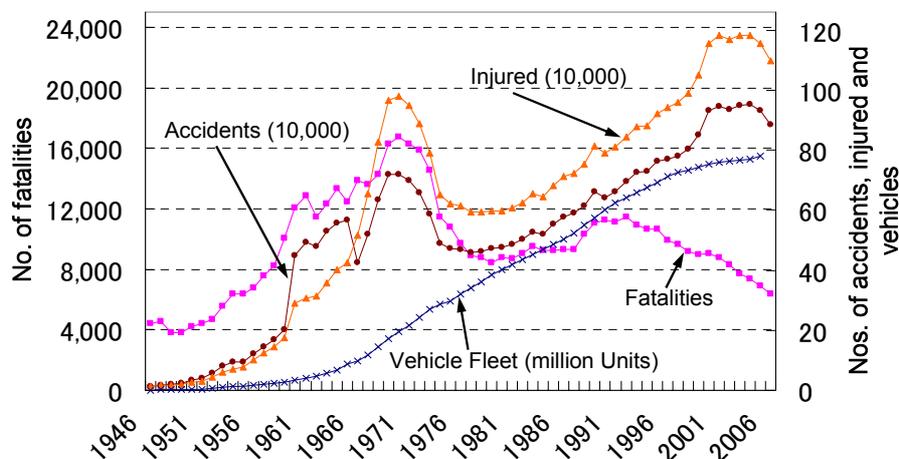
declining by more than half of the number in 1970 to 8,326 in 2002. The number of fatalities in 2006 was as small as 6,352.

However, both the number of casualties and the number of traffic accidents have been increasing on a nearly consistent basis since 1978. In 2006, these numbers decreased to 1,097,591 persons and 886,703 cases respectively, but still remained at a high level.

The following are the characteristics of fatal road accidents in recent years:

- A continuing large number of elderly fatalities at the age of 65 or older is observed, accounting for about 40% of the total fatalities. Of those elderly victims, more than 60% were involved in a fatal accident while walking or riding a bicycle. Also, the number of fatal accidents involving elderly drivers has been increasing.
- The number of young fatalities ranging from 16 to 24 years of age has been significantly decreasing. Especially, the decrease of the death of automobile occupants is remarkable.
- When compared with the United States and European countries, the ratio of pedestrian fatalities to all fatalities is higher in Japan.

As for the international comparison of the number of 30-day fatalities per 100,000 population,



Source: 'Traffic Statistics' (Institute for Traffic Accident Research and Data Analysis)

Figure 1. Trends of Traffic Accidents and its Fatalities / Casualties in Japan

made among 29 countries whose data have been released on the International Road Traffic and Accident Database (IRTAD), shows that Japan has relatively low fatalities, registering 6.7 persons (in 2004).

INITIATIVES FOR IMPROVING ROAD TRAFFIC SAFETY

- Objectives Set in the Traffic Safety Basic Plan

In order to attain the ultimate objective, i.e. a society with no traffic accidents, the government will strive to attain the medium-term objective set in 2003 of 'achieving the world's safest road traffic by reducing the annual number of road traffic fatalities to 5,000 or less, in ten years.' Therefore, the government will aim to reduce the annual number of 24-hour fatalities to 5,500 or less by 2010, the last year of the term of this program.

In March 2005, Japan established 'the Eighth (FY2006-2010) Traffic Safety Basic Plan' which set up a target for reducing the annual number of road traffic fatalities to 5,500 or less by 2010, and for reducing the annual number of casualties to one million or less by 2010. The program has following four viewpoints:

- Coping with declining birthrate and aging society
- Securing safety for pedestrians
- Encouraging citizens to improve their awareness
- Utilizing information and communication technology (ICT)

- Target for Reducing Fatalities / Casualties by Vehicle Safety Measures

The Transport Engineering Council in 1999 set down a target to achieve a 1,200 annual fatality reduction in 2010 from the 1999 baseline, in terms of fatalities within 30 days from accident injury ("within-30-day fatalities"), and Japan took several vehicle safety measures to achieve this target, according to the cycle of 'setting a target,' 'implementing safety measures' and 'evaluating the effect.' Due mainly to marked improvements in occupant protection in collisions, the previous target to reduce within-30-day fatalities by 1,000 was accomplished in 2003, giving rise to the prospect of achieving the 2010 target in 2005 or 5 years in

advance.

The Road Transport Subcommittee of Land Transport Committee of Transport Policy Council made a mid-term review of the above target, and set the following new target in June 2006:

- With the current fatality reduction target (recommended by the Transport Engineering Council in 1999) being reached 5 years in advance, the target will be strengthened by an additional 800-fatality reduction.
- To continue fatality reductions into 2010 and beyond, efforts will be exerted to enhance active safety measures.
- While no target has been set for the number of the injured, the government will aim to reduce road traffic injuries by 25,000 in 2010 from 2005 baseline through the execution of active safety measures and passive safety measures.

- Objectives of Vehicle Safety Measures

For achieving the abovementioned target, the report of Transport Policy Council in July 2006 proposed mainly the following objectives of vehicle safety measures.

1. Promotion of Active Safety Technologies

(Measures needed for early introduction)

Heavy duty vehicles tend to cause severe accident damage; for example, their rear-end collisions on highways are a serious public issue. Therefore, it is urgently necessary to promote the widespread use of damage mitigation brake for heavy duty vehicles.

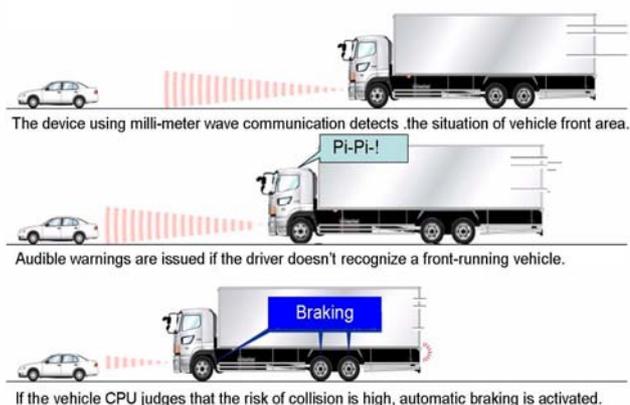


Figure 2. Outline of Damage Mitigation Brake

In association with the above recommendation, the government is planning a budget for disseminating the fitting of damage mitigation brake in FY2007, which subsidizes 50 percent of the total expense of the system. It is going to be started from April 1, 2007.

(Measures needed in middle-term perspective)

To expand the use and accelerate the development of active safety technologies, the following conditions will be necessary:

- a) increased knowledge of vehicle users about safety technologies,
- b) introduction of measures to promote safety technologies,
- c) introduction of new safety regulations with a view to international harmonization, and
- d) development of even more effective safety technologies.

The promotion of active safety technologies must be supported by the quantitative evaluation of their effects, which will necessitate further improvements in accident analysis and the establishment of performance evaluation techniques for new technologies. Driving recorders are regarded as one of the effective tools for such purpose.

2. Enhancement of Passive Safety Measures

Along with the promotion of active safety technologies, it is also necessary to enhance passive safety measures to reach fatality and injury reduction targets and minimize serious injuries and disabilities

from road traffic accidents. For example,

- For the reduction of neck injuries from rear-end collisions, efforts will be made to establish a global technical regulation (gtr) for head restraints and to supply the consumers with relevant information, such as neck protection assessment information on various vehicle models.
- Wearing of seatbelts in the rear seats will be encouraged, although seatbelt wearing in the rear seats has remained at a modest 8% wearing rate despite the excellent occupant protection by these seatbelts.

3. Promotion of Measures for Pedestrians and the Elderly

A large percentage of fatalities continue to be from among pedestrians, many of which are children and the elderly. In view of ongoing aging and dwindling birth rate of Japanese society, it is important to enhance measures to protect pedestrians and the elderly. Following are examples of such activities:

- Efforts will be exerted to establish and introduce gtr for pedestrian safety.
- Efforts will be taken to promote the use of brake assist systems.
- Studies will be conducted to develop vehicles suited for the diverse physiques of drivers including elderly drivers.

PROMOTION OF VEHICLE SAFETY MEASURES

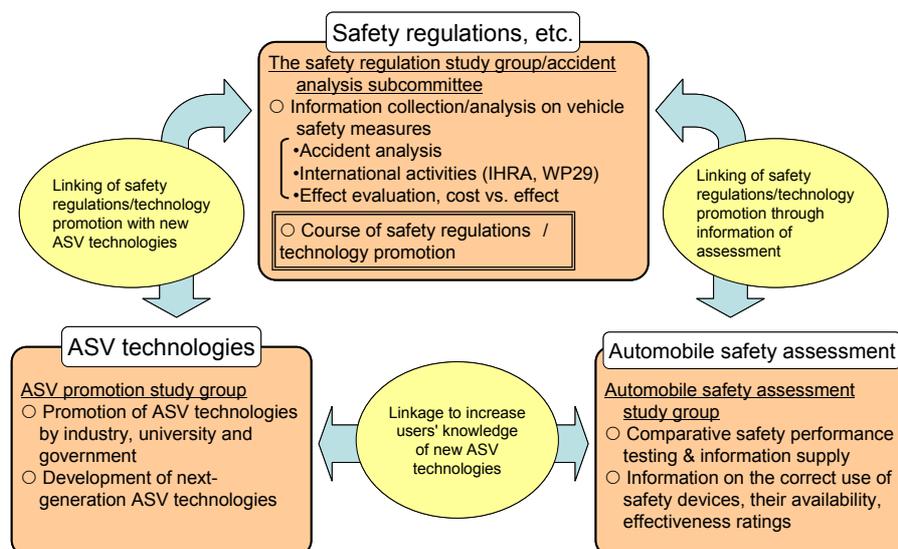


Figure 3. Linkage Image of Policy Initiatives

Based on the report of Transport Policy Council in July 2006, Japan has been actively implementing initiatives to improve motor vehicle safety, such as the reinforcement of safety regulations, new car assessment program (NCAP) and the promotion of advanced safety vehicle (ASV) project, working with the linkage between those initiatives.

- Establishment / Revision of Safety Regulations

After the last ESV Meeting in June 2005, Japan has strengthened the following regulations:

- Introduction of an offset frontal collision regulation for passenger cars and small trucks (adding on a current regulation for full-lap collision) (December 2005)
- Introduction of the regulations for ISO-FIX child seats and for mandating 3-point seatbelt for rear center seat (October 2006)
- Introduction of the regulation for Adaptive Front-lighting System (AFS) (June 2007 (plan: this item is going to be implemented in line with the other amendments of Japanese safety regulations for adopting the amendments established in 140th WP29 in November 2006))

In introducing safety regulations, Japan undertake comprehensive consideration process by the cycle of vehicle safety measures (‘setting a target,’ ‘implementing safety measures’ and ‘evaluating the effect’) so as to further expand its portfolio of vehicle safety measures, using a scientific methodology based on accident analysis. To ensure such a process, the task of introducing safety regulations was entrusted to the experts comprising the safety regulation study group and the

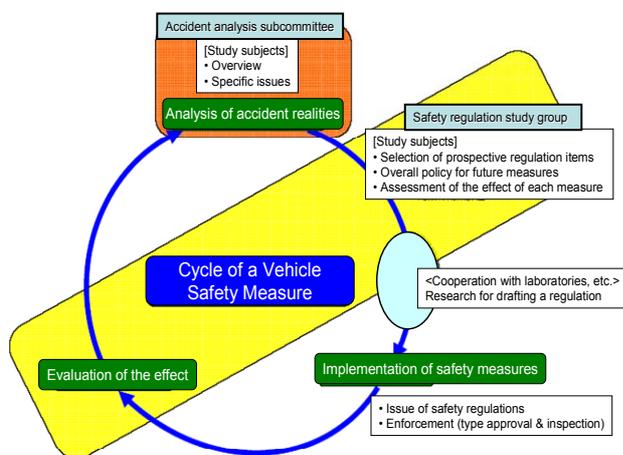


Figure 4. Framework for the Implementation of Safety Measure Cycle

accident analysis subcommittee. Automobile safety symposiums are held annually for keeping transparency of the cycle of vehicle safety measures.

- Advance Safety Vehicle Project

Advanced Safety Vehicle (ASV) are vehicles equipped with systems using advanced technologies to improve safety. Japan has been promoting ASV project since 1991, which aims to promote the development, introduction and popularization of ASV technologies. The project is carried out under the auspices of the Study Group for Promotion of ASV, a joint industry, university and government initiative. Up to now, many ASV technologies, damage mitigation braking system and lane-keeping assistance system for example, are already available commercially in Japan.

Table 1. Commercialized Technologies from ASV project

No.	ASV technology	Status		
		1996	2001	2004
1	High-speed adaptive cruise control (ACC)	★	★★★	★★★
2	Low-speed adaptive cruise control	★	★★	★★★
3	Lane keep	★	★★★	★★★
4	Damage mitigation brake	★	★	★★★
5	Drowsiness warning	★	★★★	★★★
6	Rear and side obstacle warning	★	★★★	★★★
7	Curve warning	★	★	★★★
8	Night vision	★	★	★★★
9	Parking assist	★	★	★★★

★: In-company test, ★★: Road running test, ★★★: Commercial use

ASV project activities have now been contributing to develop vehicle safety technologies for more than 15 years, and started its fourth phase (FY2006-2010) from September 2006, which will promote the popularization of ASV technologies and to encourage the development and introduction of new technologies. Evaluating effects and information on ASV technologies are included in the popularization promotion activities. For technology development, ASV Phase 4 is developing driver assistance systems based on tele-communication technology, and participates in trials of the Japanese joint initiative between government and private organization under the IT New Reform Strategy, from vehicle side, which aims to achieve the introduction of some driving systems using car-to-car or car-to-infrastructure communication technology.

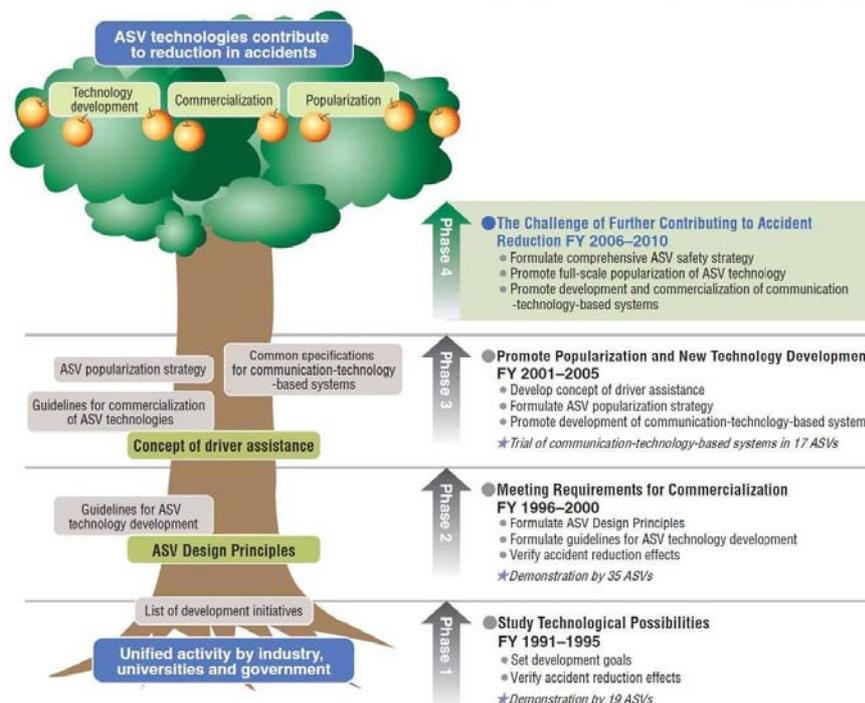


Figure 5. Outline of ASV project

- New Car Assessment Program (NCAP), etc.

To encourage the development and widespread use of safer vehicles by providing safety information to consumers, Japan has been conducting the new car assessment program (JNCAP) tests of vehicle safety and its evaluation since 1996, in collaboration with National Agency for Automotive Safety and Victims' Aid (NASVA). More specifically, collision safety performance tests (full-lap frontal collision tests, offset frontal collision tests and side collision tests), pedestrian head protection performance tests and braking performance tests are undertaken. Child seat safety performance tests are also conducted in addition to JNCAP.

The results are open to the public by brochures, websites, etc., in which the explanation of the functions and availability of safety devices are also provided. To promote the dissemination of ASV technologies being in the process of popularization, the availability of each ASV technology, by vehicle model, is included from 2005.

The establishment of safety regulations and the initiation of JNCAP have prompted many models to score high ratings, so that the occupant injury values have come down to below the regulatory limit value by wide margins. For example, the average rate in collision safety performance tests has increased more

than 40 percent between 2000 and 2005, and most of the vehicle models are winning the highest 6-star rating in 2005. In pedestrian head protection performance tests, the average rate has increased more than a half since its start in 2003.

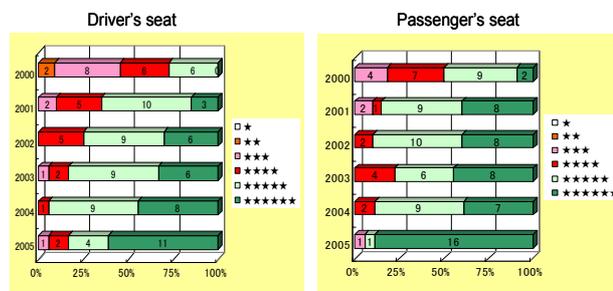


Figure 6. Number of Vehicle Models and Assessment Ratings

NCAP is implemented in other motorized countries as one of their important vehicle safety measures, and the exchange of information are held regularly between those countries. In association with this information exchange, 4th World NCAP Seminar was held in Tokyo in October 2006, under the joint auspices of NASVA and Australasia NCAP (ANCAP). China, India and Korea were also participated to the seminar, in addition to ANCAP, Euro NCAP and U.S.

- Other Measures (Initiatives for Eliminating Accidents by Drunk Drivers)

In recent years, the number of fatal accidents resulting from drunk driving accounts for approximately 10 percent of total fatal accidents and has been decreasing steadily. However, it has become an object of public concern as three children were killed when the vehicle they were riding in plunged from a bridge into a sea after it was rear-ended by a drunk driver in August 2006 in Japan.

In response to such concern, Japanese government made up its efforts to eliminate drunk driving in September 2006, including increasing the effectiveness of police action and creating campaigns that enhance public awareness of the dangers of drinking and driving.

Vehicle technology-related issues were also included in these efforts, and the government started a study meeting with vehicle manufacturers from October 2006, seeking a possibility to develop an alcohol interlocking system which automatically locks a vehicle's ignition when a certain level of alcohol is detected in a driver's breath. From February 2007, the government set up an advisory panel of experts for developing a draft technical guideline of alcohol interlocking system.

INTERNATIONAL HARMONIZATION OF VEHICLE REGULATIONS AND PROMOTION OF THE MUTUAL RECOGNITION OF CERTIFICATION

In formulating safety regulations, it is necessary to take into consideration the ongoing efforts of other countries to harmonize their regulations and enhance collaborative relationships among countries in order to answer the growing demand for safety regulations reflecting sophisticated technologies. Japan has been a Contracting Party of the two international agreements by United Nation, 1958 Agreement and 1998 Agreement. International harmonization has remarkably progressed over the recent years owing to these Agreements.

As a result, there are growing needs to harmonize regulations, and Japan has been contributing actively to the work in WP29. Japan contributes to international harmonization as one of major parties taking initiatives of the forum.

As for the activities related to the 1958

Agreement, Japan has promoted international harmonization of automotive regulations and has made an effort to apply more ECE Regulations after its accession in November 1998. At present, Japan applies or harmonizes 36 ECE Regulations. Japan will keep working on applying regulations step by step and actively proposing to amend regulations to apply them, taking into consideration domestic and international demands for harmonization and their economical effects, while Japan continues to commit to keep levels of Japanese safety and environmental regulations.

For activities related to the 1998 Agreement, there are already two safety-related gtrs established by now. Japan is playing an active part in the establishment of gtr, together with U.S., Europe and other contracting parties by contributing in chairing or participating as a drafter in meetings' discussing issues.

With regard to international research activities, Japan has actively participated in the ESV (Enhanced Safety of Vehicles) Conference and the IHRA (International Harmonization Research Activities) Project along with the EU, USA, Australia and other major motorized countries and regions.