

2. TRANSPORT

(1) REGIONAL AND GLOBAL TRANSPORT SYSTEM INTEGRATION (ENCOURAGING EFFICIENT MODES)

Concrete actions taken and specific progress made in implementation

In the transportation sector CO2 emissions have been declining since 2001. But even in this sector there is an urgent need for the formulation of more effective distribution policies that can contribute to global warming countermeasures, in order to achieve Japan's reduction commitments under the Kyoto Protocol.

Global warming countermeasures in the distribution field cannot be implemented only through the owners of the freight and distributors acting alone. It is necessary for them to share their wisdom with each other and collaborate and coordinate (form partnerships) to advance the improvement of distribution systems based on cross-industry initiatives. With the cooperation of the related industrial organizations the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism established the Green Logistics Partnership Conference in FY2005 as a forum for deepening these kinds of collaboration.

The Green Logistics Partnership Conference provides support for businesses that carry out cutting-edge initiatives, surveys, demonstration experiments, etc. that contribute to environmental measures. It is still continuing to support businesses that are working to develop green logistics.

Currently over 3000 companies and organizations, etc. are registered members of the Green Logistics Partnership Conference and 236 projects have been approved for promotion as projects that have a CO2 emissions reduction effect (as of FY2009).

Lessons Learned and Excellent Examples

The Green Logistics Partnership Conference is providing support for CO2 emissions reduction projects implemented by the partnership between the owners of the freight and the distributors. Both of the ministries run the conference in cooperation with the Japan Institute of Logistics Systems and the Japan Federation of Freight Industries.

The Green Logistics Partnership Conference awards prizes for particularly excellent initiatives in its main conference held at the end of each year. The details of these prizes can be seen on the web site of the conference (<http://www.greenpartnership.jp/>), etc.

Trends and Newly Emerging Problems

The details of the projects that have been approved for promotion by the Green Logistics Partnership Conference are as follows.

Cumulative total	FY2005	FY2006	FY2007	FY2008	FY2009	Total
Consolidation of bases	4	14	9	12	4	43
Joint transportation and delivery	9	10	6	7	0	32
Modal shifts	15	39	18	14	3	89
Larger vehicles	0	2	5	17	4	28
Utilization of electronic tags, etc.	0	3	0	1	0	4
Other	5	11	13	10	1	40
Total	33	79	51	61	12	236

(2) VEHICLE EFFICIENCY AND EMISSIONS POLICIES

Specific Actions Taken and the Implementation Process

CO₂ emissions from automobiles account for approximately 20% of Japan's total CO₂ emissions. Reducing CO₂ emissions from automobiles has become an important challenge for the promotion of global warming countermeasures. Improving the fuel efficiency performance of automobiles is an extremely important part of this approach.

Japan was the first country in the world to formulate fuel efficiency standards, based on the 1979 Act on the Rational Use of Energy (Energy Saving Act), and in 1999 Japan introduced the "Top Runner standards* approach."

* Top Runner standards: standards formulated based on automobile currently commercially available that has the best fuel efficiency performance, and taking into consideration the future prospects for technology development, etc.

Under the Energy Saving Act, automobile manufacturers, etc. (automakers and importers) are required to improve fuel efficiency performance so that the average fuel efficiency figures for their automobiles in each category (the figure calculated by taking the weighted harmonic average of the fuel efficiency figures for the automobiles using the number of units shipped) are higher than the fuel efficiency standard value by the target fiscal year. Moreover, the Energy Saving Act stipulates matters regarding labeling of the fuel efficiency figures so that automobile users are able to select automobiles with outstanding fuel efficiency, and the fuel efficiency figures of each automobile are displayed in the product catalog for that automobile.

Finally, the Ministry of Land, Infrastructure, Transport and Tourism implements evaluations of the fuel efficiency performance of automobiles

and actively publishes the results of the evaluations, with the objectives of increasing the interest of automobile users in energy saving and promoting the greater use of automobiles with a good fuel efficiency performance.

<History of Fuel Efficiency Standards>

- June 1979: Act on the Rational Use of Energy (Energy Saving Act) established
- December 1979: Formulation of the Fuel Efficiency Standards for Gasoline-fueled Passenger Vehicles (FY1985 target)
- January 1993: Revision of the Fuel Efficiency Standards for Gasoline-fueled Passenger Vehicles (FY2000 target)
- March 1996: Formulation of the Fuel Efficiency Standards for Gasoline-fueled Freight Vehicles (FY2003 target)
- June 1998: Revision of the Energy Saving Act... introduction of the “Top Runner standards” approach
- March 1999: Formulation of Top Runner standards for passenger vehicles and small freight vehicles (FY2010 target for gasoline vehicles and FY2005 target for diesel vehicles)
- July 2003: Formulation of Top Runner standards for LP gas passenger vehicles (FY2010 target)
- March 2006: Formulation of Top Runner standards for heavy vehicles (trucks, buses, etc.) (FY2015 target)
- July 2007: Formulation of new fuel efficiency standards for passenger vehicles, small buses, and small freight vehicles (FY2015 target)

Lessons Learned and Excellent Examples

The formulation of fuel efficiency standards has produced steady results. For example, there has been a 50% improvement in fuel efficiency over the last 20 years. Furthermore, it is expected that the new fuel efficiency standards formulated in 2007 for passenger vehicles will produce an average improvement in fuel efficiency of 23.5% from FY2004 to the target fiscal year of 2015. Moreover, it is expected that the fuel efficiency standards for heavy vehicles (buses and trucks) formulated in 2006, the first of their kind in the world, will produce an average improvement in fuel efficiency of more than 12% for heavy vehicles by 2015.

(3) DEVELOPMENT OF VEHICLE TECHNOLOGY RESEARCH AND DEVELOPMENT

Specific Actions Taken and the Implementation Process

Regarding technology development for automobile transportation vehicles, the Ministry of Land, Infrastructure, Transport and Tourism has been implementing the Next-Generation EFV Development and

Commercialization Project since FY2002 with the National Traffic Safety and Environment Laboratory as the core research institution. The objectives of the project are to improve the bad atmospheric pollution situation primarily in large cities, to prevent global warming, and to reduce Japan's oil dependence by using new fuels. It aims to achieve these objectives by promoting the development and commercialization of next-generation, low emission vehicles with outstanding environmental performance that can replace large diesel vehicles such as trucks, buses, etc.

Specific models currently being developed include DME trucks, CNG trucks, LNG trucks, FTD trucks, super clean diesel engines, hydrogen engines and inductive power transfer hybrid buses.

The project includes the development and test production of vehicles with the cooperation of automakers, and the Demonstration Model Projects in which the vehicles are used in actual transport projects, etc. to improve their practicality.

Lessons Learned and Excellent Examples

Development outcomes to date include the successful commercialization of hybrid buses and trucks, and their subsequent launch onto the market. Furthermore, regarding the vehicles that are currently under development, there are good prospects for the commercialization of DME trucks, CNG trucks, etc. before long.

Trends and Newly Emerging Problems

At the time of the initial commencement of the project the major goal was to deal with the atmospheric pollution problem but over the last few years the importance of preventing global warming has been growing, and it has become necessary to shift the direction of technology development for automobile transportation vehicles toward development that contributes to the reduction of carbon dioxide emissions.

(4) Environmentally Sustainable Transport Co-benefit Approaches and Practices in Asian region

Concrete actions taken and specific progress made in implementation

The United Nations Center for Regional Development (UNCRD) and the Government of Japan have established the Asian Regional Environmentally Sustainable Transport (EST) Forum with the aim of making EST a reality in the Asian region, and is working in cooperation with other Asian countries by conducting high-level policy dialogues with their governments.

The First Meeting of the Forum was held in Nagoya City, Aichi Prefecture, in 2005. This was followed by three Meetings (Second Meeting - Fourth

Meeting) in Yogyakarta, Singapore, and Seoul respectively. The Fourth Meeting of the Forum, held in February 2009, welcomed representatives from 22 countries in the Asian region (10 ASEAN countries, 8 South Asian countries, China, Japan, Republic of Korea, and Mongolia). Here, each country participated in the sharing of best practices by presenting reports on their undertakings toward the realization of EST, and held discussions concerning the provision of support for developing countries through the co-benefit approach, which involves institutions such as the World Bank and the Asian Development Bank.

The Government of Japan, in cooperation with the Ministry of the Environment and the Ministry of Land, Infrastructure, Transport and Tourism, has introduced Japan's EST-related efforts, and is working toward the realization of EST in the Asian region through actual implementation of EST activities.

Lesson learned

The “Aichi Statement,” drawn up and adopted at the First Meeting of the Regional EST Forum in Asia, lays out the fundamental concepts of the EST that the Asian region is aiming for, as well as the continuous implementation of EST-related activities. Further to that, the “Seoul Statement,” which focuses on promoting EST activities for achieving of low-carbon society and green growth , was drawn up and adopted at the Fourth Regional EST Forum in Asia.

Within the framework of the Forum, and as part of the efforts taken toward the materialization of EST in each country, Asian countries, which are in various stages of development, are separated into different phases based on their characteristics and progress status, national EST strategies are being formulated for each country, and follow-ups on their progress status are conducted on a regular basis. Specifically, EST strategies have been drawn up for Vietnam, Laos, and Cambodia, and plans for the Philippines and Indonesia have been in the works since 2008.

In addition, the spotlight has also been put on activities implemented at the city level so as to enhance the synergistic effect with efforts taken at the national level. In 2007, the “Asian Mayors' Policy Dialogue for the Promotion of Environmentally Sustainable Transport in Cities” was held in Kyoto. Mayors from 23 cities in 14 Asian countries participated in the event, sharing best practices and engaging in policy dialogues aimed at realizing EST for urban transportation in Asia. The “Kyoto Declaration,” stating the intention to further promote the implementation of comprehensive measures for the realization of EST, was drawn up and adopted as a result of these discussions. In November 2008, 12 more cities signed the Kyoto Declaration in a ceremony held in Bangkok,

Thailand, as the EST movement continues to expand and penetrate the Asian region.

(5) International initiative to combat climate change and air pollution in the transport sector

Concrete actions taken and specific progress made in implementation

Japan takes the initiative to enhance global efforts to combat climate change and air pollution in the transport sector through the Ministerial Conference on Global Environment and Energy in Transport (MEET) process, an open forum among transport ministries of major countries and relevant international organizations.

The first Ministerial Conference on Global Environment and Energy in Transport (MEET) was convened in January 2009 in Tokyo, hosted by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), the Government of Japan. Transport ministers and delegates of 21 countries, with the participation of representatives from 9 international organizations, discussed the challenges that the transport sector faces and a required course of actions to tackle climate change and air pollution issues. The ministers shared the long-term global vision of realizing low-carbon and low-pollution transport systems, and adopted the Ministerial Declaration that delivers political messages on future actions and international cooperation in the sector.

Furthermore, MLIT Japan hosted the MEET Follow-up Meeting in June 2009 in Hakodate, Hokkaido, to share experiences and expertise to accelerate concrete actions by individual countries as well as to further facilitate international cooperation. The meeting shed light upon the importance of assisting efforts of developing countries, particularly to formulate strategic action plans and employ a variety of financial sources, as well as the necessity of enhancing capacity building for such areas as statistical data development, fuel efficiency standards and public transport systems.

The way forward

The second MEET ministerial conference is expected to be held in early 2010 under the auspices of Italy, which would discuss further actions in the transport sector based on the result of COP15. In collaboration with other governments and international initiatives, Japan will continue to take the lead in fostering a network of transport ministries and experts, sharing experiences and best practices across countries, and assisting efforts of developing countries, paving the way for a low-carbon future of transport through the MEET process.

