

**WHITE PAPER ON LAND, INFRASTRUCTURE,
TRANSPORT AND TOURISM IN JAPAN, 2009**



Ministry of Land, Infrastructure, Transport and Tourism

WHITE PAPER ON LAND, INFRASTRUCTURE, TRANSPORT AND TOURISM IN JAPAN, 2009
Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

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Chapter 1: New MLIT Policies Accommodating the Needs of the Times

Section 1 – MLIT Policies Accommodating the Needs of the Times

1. Efforts on Development Strategy by MLIT

Confronting the anxious factors of the future, such as a declining population, rapid aging with fewer children (low birthrate) and large long-term debt, it is important to utilize outstanding resources, such as talent, technological capability and tourism resources and to improve international competitiveness for Japan to keep building a sustainable country in the future. Therefore, in order to establish a development strategy, the 1st MLIT Development Strategy Conference, which was comprised of experts, was held on 26th October 2009. The studied topics were from 5 areas, 1) Ocean; 2) Tourism; 3) Aviation; 4) International Development/Partnership between citizens and government; 5) Housing/Town. By the end of March 2010, 10 meetings in total were held for the study of development strategy in MLIT. A summary of the suggestions is scheduled towards the end of May of the same year and the budget for strategy implementation will be reflected in the budget request of FY 2011. Moreover, MLIT aims to summarize the opinions regarding the Basic Act on Transportation which prescribes the basic items about traffic – the foundations for supporting development, and related policies, in May ~ June 2010. While carrying on with the preparation for submission of the bill to the ordinary Diet session, MLIT plans to reflect this in the budget request of FY 2011.

2. New Relationship Between the Central and Local Governments

In order to realize “Regional Autonomy Reform”, on the important issues directly linked to people’s lives, such as formation of a healthy economic society and region and ensuring safety/security, MLIT is promoting measures that must be taken on a nationwide scale or from a nationwide viewpoint. At the same time, MLIT is also planning to build partnerships with prefectures and municipalities, on the basis of appropriate role sharing between the central and local governments.

For instance, in response to the regional actualities with the forecast of increasing disparity in terms of population and financial power, it is necessary to establish a flexible standard (implementation of local rule), which enables appropriate selections. Thus, MLIT is implementing the introduction of “1.5-lane road development¹” though it is planning on cost reduction.

Furthermore, “Burden Charge Scheme of Direct-Controlled Business” is a system, based on laws and regulations, requesting the benefited regional public organization to bear a certain amount of the expenses of the direct control business. It is because the business’ results relate concretely to the regional public organization; though the direct control business is carried out from the nation’s viewpoint.

Starting from FY 2010, based on the “Act on the related Law Preparations for the Abolition of the Burden Charge of Maintenance Management for Prefectures related to National Direct-controlled Business”, the burden charge scheme related to maintenance management was abolished. However, having considered the decrease in business volume, the burden charge, regarding the necessary maintenance management (specified maintenance management which requires immediate action for ensuring security and safety, etc.) expenses for specified business, will still be levied within FY 2010 as an interim measure. Moreover, business management charges such as the personnel cost included in the burden charge of direct control business in addition to the grant administration expenses related to public projects were abolished. Furthermore, starting from FY 2009, the regions have not been requested to bear the burden charge of direct-controlled business including the resignation allowance and the building repair and accommodation charge.

3. Utilizing the Ideas of the Private Sector

Under the constraints of a declining population, an aging society with fewer children (low birthrate) and financial deficit, it is necessary to promote the essential infrastructure development with strategic focus, including maintenance management, by utilizing PPP²/PFIs³. In addition, in order to enter the overseas PPP/PFI market, expanded by the construction and transportation industries, it is important to acquire the know-how in our own country first. Therefore, cooperating with the related ministries and government offices, MLIT is carrying out the review of system improvement of a Public Private Partnership/Private Finance Initiative scheme (PPP/PFI) for bettering the partnership between the private sector and the government and active introduction of PPP/PFIs towards MLIT social capital improvement, through discussion in the MLIT Development Strategy Conference.

Furthermore, MLIT is implementing regulations from the viewpoint of ensuring citizen’s safety/security in the area of transportation, housing and land. The regulations have been reviewed as necessary, in order to respond precisely to the changes of the socio-economic situation. As for the structural reform special region, a total of 20 exceptional measures were set up and around 200 special regions were authorized throughout the country as of the end of March 2010. Moreover, on the basis of achievements in special regions, MLIT carried out regulation reform on a nationwide scale on about 14 exceptional measures, such as enlargement of vehicles for the charged transportation of NPO volunteer transportation.

¹ For the purpose of early actualization of development effects, the Road Construction Order is applied flexibly according to regional actualities; it is not intended to develop double-lanes for all roads but is a development technique of combining single-lane and turnout construction.

² Public Private Partnership

³ Private Finance Initiative

Section 2 – Formulating and Promoting the Future Vision of National Land and Social Capital

1. Promotion of National Land Policy

According to the policy guidelines of comprehensive national development, a comprehensive national land policy is being pushed forward, based on the Plan on National Land Development (nationwide plan) that carries the new national image of “building the nation and enabling the independent development of diversified regions as well as beautiful and comfortable living environments”; and the Plan on the Use of National Land (nationwide plan) that uses the “Sustainable National Management” as the basic policy.

1) Formulation and promotion of the wide-area region project

The wide-area region project, as a project that embodies the new national land image shown in the national land formation project and summarizes the regional strategies and specific efforts of each wide-area block from Tohoku to Kyushu, was decided by the Minister of MLIT in August 2009 after the discussion in the Regional Plan Council, formed with national local branches, regional public organizations and economic organizations. On the basis of this, numerous prefectures are cooperating to prepare a mechanism to support the basic infrastructure and soft measures necessary for promoting wide-area tourism invigoration and industry vitalization.

2) Efforts towards the village issue

For regions that are unfavorable for living and production, such as mid-level mountain areas, while there are villages facing problems related to subsistence due to the marked progress of population decline and the aging problem, there are also many citizens who wish to be living there continuously. Therefore, it is a pressing issue to ensure the living safety/security of the people who are now living in those regions. For this problem, it is necessary to (a) ensure basic services for living such as medical care and shopping; (b) sustain livelihood with several additional small-income jobs; (c) implement appropriate measures towards the management of abandoned lands. To realize these, it is important to “prepare the activity environment for talent” and “ensure capital”. From now on, MLIT will review the specific policies by cooperating with related ministries and government offices.

3) Formulation of a new metropolis strategy and construction of systems to inspire the realization of cross-regional strategic targets

The countries to which the remarkable growing metropolises, such as Seoul, Singapore, Shanghai, Tianjin, Greater Washington belong, are promoting efforts to raise competitiveness. The metropolises of our country must also review the existing metropolis plan thoroughly. While paying attention to opinions on Regional Autonomy Reform, MLIT is continuing its work on newly formulating the Metropolis Strategy from a strategic viewpoint based on international and wide regional viewpoints.

In addition, MLIT is to establish a system aiming at defining a strategic goal for the wide-area regions of our county to transform themselves into a truly independent metropolis with international competitiveness, and also at developing and invigorating the private/academia sector cooperation entities that should be the central figure to achieve the goal.

2. Promotion of the 2nd Priority Plan for Social Infrastructure Development

The Priority Plan for Social Infrastructure Development is a plan that incorporates plans from nine business fields, clarifies the performance objectives from the citizen’s view and defines the reform policies of social infrastructure development. The objective of the plan is to promote social infrastructure development projects in a focused, effective and efficient manner. In March 2009, a Cabinet meeting decided on the 2nd Priority Plan for Social Infrastructure Development with the project period set to be from FY 2009 to FY 2012. The progress of this project in FY 2008 was reported at the 10th project sectional meeting of the Social Infrastructure Development Council and Transportation Policy Council held in July 2009 and the fact that 71.4% of the measures had shown progress towards the achievement of the goal was appreciated.

In addition, efforts are being made towards reflecting regional opinions on the evaluation and increasing pre-evaluation by third parties for new direct-control projects, etc. at the new project adoption stage, as well as towards moving up the execution time for the evaluation and the release time of the evaluation results from the end of the fiscal year to the end of January, which should improve the transparency of the project management of public works projects.

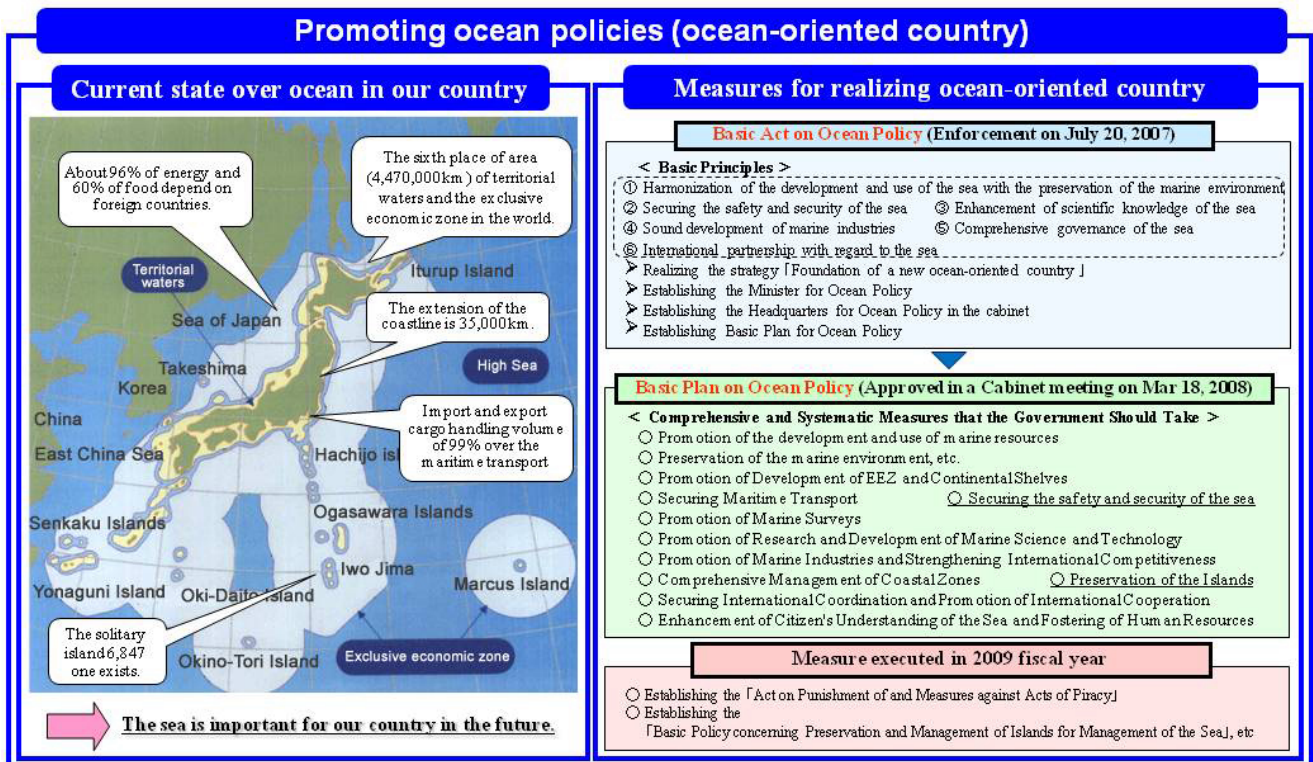
Section 3 – Promoting Ocean Policies (An Ocean-oriented Country)

As a country surrounded by ocean, it is highly necessary to perceive the extensive ocean as a frontier and to realize an “Ocean-oriented Country”, beginning with the effective utilization of ocean resources. In order to promote ocean policy, under the “Basic Plan on Ocean Policy” based on the “Basic Act on Ocean Policy”, MLIT is promoting ocean policy and cooperating with the related institutions at the same time.

In June 2009, the Act on Punishment of and Measures against Acts of Piracy was established for the purpose of planning the maintenance of public marine safety and order, which prescribes necessary items for piracy punishment and the appropriate and effective way to deal with piracy. Based on this Act, coast guard officers are aboard the escort ships dispatched to the sea around Somalia/Gulf of Aden so as to effectively execute judicial police activities such as arrests and interrogations when piracy occurs.

Moreover, in December of the same year, the Basic Policy concerning Preservation and Management of Islands for Management of the Sea was approved in the meeting of the Headquarters for Ocean Policy. The policy serves as the guidelines for accurate preservation and management of remote islands under the cooperation of related ministries and government offices in order to apply appropriate

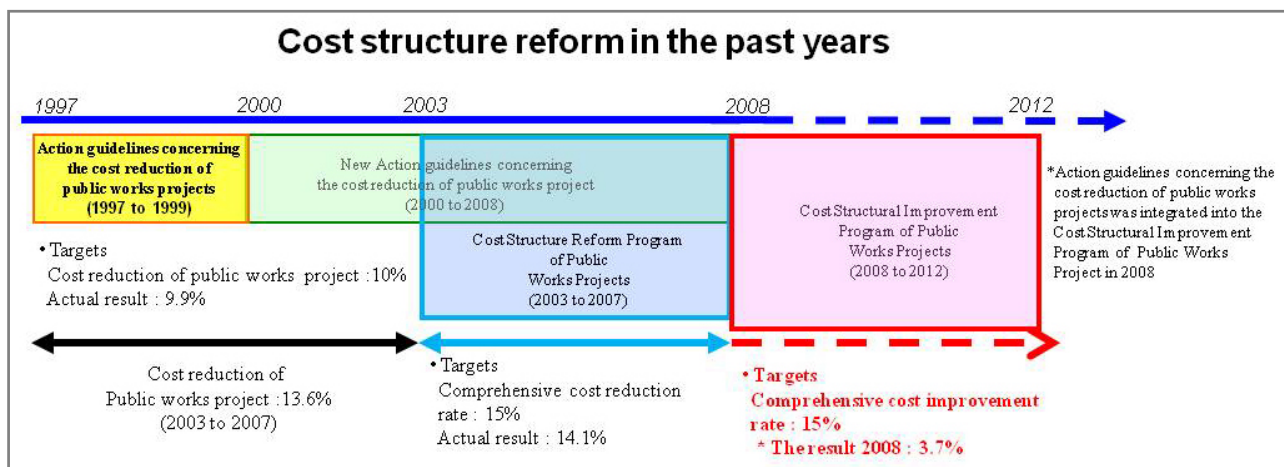
management of the territorial sea of the exclusive economic zone etc. (4.47 million km²), which is around 12 times the area of the nation's land area (about 380 thousand km²). Hereafter, according to this basic policy, policy enforcement for the preservation and management of the remote island can be performed effectively. Also, on the basis of the "Basic Plan on Ocean Policy", the ocean policy is being promoted actively.



Section 4 – Efficient and Focused Policy Implementation

1. Promoting structural improvement for the comprehensive cost of public works projects

Structural improvement for the comprehensive cost of public constructions has been carried out throughout the government since 1997 under the background of severe financial circumstances. Now, MLIT is putting efforts on the structural improvement of comprehensive cost based on the "MLIT Program of cost structural improvement on public works projects" formulated in March 2008. Specifically, in addition to the existing measures, MLIT also attaches attention on VFM¹ maximization and sets the "Comprehensive Cost Improvement Rate" for assessing 1) the improvement of social cost structures such as the reduction effect of environmental burden; 2) the improvement of the lifecycle cost structure by improving durability of facilities; 3) the cost structural improvement by technology reform of private enterprises, and targets to achieve 15% of the Comprehensive Cost Improvement Rate compared with that of FY 2007 within five years. As a result, the achievement of the Comprehensive Cost Improvement Rate of MLIT and related institutions in FY 2008 was 3.7%.



¹ To provide the service with the highest value towards the investments from the planning stage to the maintenance stage of public works projects with the economy in mind

2. Ensuring the quality of public works and implementing appropriate tender contracts

On the basis of the “Act on Promoting Quality Assurance in Public Works” (Public Works QA Act), in order to ensure the enhanced quality of public works, as a general rule, a comprehensive evaluation scheme¹ is implemented for every public works project from FY 2008, and a comprehensive evaluation scheme has been fully implemented for construction consultant businesses. Against the obstacles towards quality assurance and the negative effects towards subcontractors due to lowering prices, MLIT is implementing a comprehensive evaluation scheme of construction system verification, special focal examinations and reviewing benchmark prices for examining unreasonable low tender prices. Moreover, aiming to ensure the quality of the project’s final product, the promotion of information sharing between the designers and constructor, such as communicating the design concept and verification of the operational status of the project throughout the working processes, are being put in practice. To reflect those results, the implementation of “examinations throughout the working processes” is being trialed. For regional public organizations, MLIT requests them to promote the introduction/expansion of the comprehensive evaluation scheme, properly review the benchmark of bidding prices as well as the release day of bidding prices and promote the elimination of bidding at dumping prices.

To plan for further improvement of the contract-bidding scheme, the central government and local public organizations are promoting the utilization of expansion of general competitive bidding and expansion of the comprehensive evaluation scheme, the utilization of bidding bonds² as the basic condition for realizing the expansion of general competitive bidding, and the utilization of diversified order methods, such as package orders for both design and implementation and the CM model³. In FY 2008, MLIT applied general competitive bidding on 95% of projects and the comprehensive evaluation scheme on 99.7% of projects (both on an amount base). In FY 2009 and coming years, MLIT has been continuously carrying out excellent procurement with both price and quality. For local public organizations, MLIT requests them to stop early release of the bidding price, performing proper settings of bidding conditions such as local requirements, implementing proper measures of contract amendment and promotes contract bidding at an appropriate price. In addition, MLIT is reviewing the process for CM-model contracts and digitalization of bidding bonds.

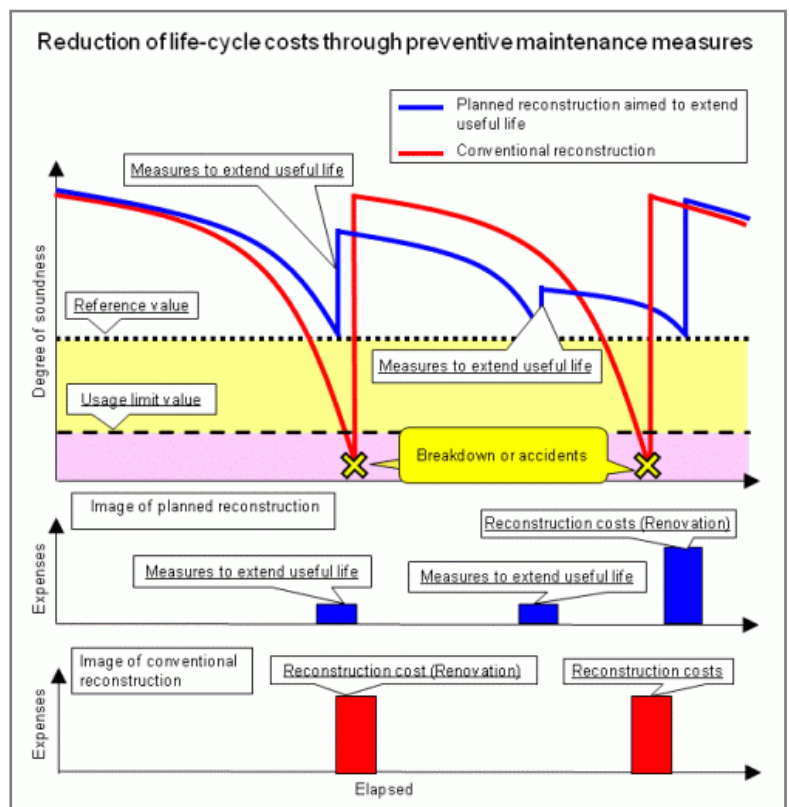
Furthermore, policies are compiled regarding ensuring the transparency of the comprehensive evaluation scheme, the improvement of business management inspections, such as enforcing preventive policies against application fraud and reviewing examination standards, the expansion of bidding bonds, and policies for subcontractors, such as revising the standard subcontract provisions and examining the introduction of a new subcontractor cost upkeep policy in March 2010. In FY 2010 and the coming years, MLIT will be implementing policies that can be applied gradually.

3. Strategic maintenance management and renovation of social infrastructure in the era of aging infrastructure

The social infrastructure of our country was steadily introduced along with the rapid economic growth after the war. However, from here on, our country is facing the problem of the rapid and continuous aging with social infrastructure.

Under such circumstances, while it is predicted that there will be a rapid increase in maintenance management cost and renovation cost, a sharp rise in the risk of serious accidents and fatal damage is also expected due to a great increase in the proportion of aging facilities.

Therefore, MLIT takes a necessary shift from “post management” that takes action after an incident occurs, to “preventive maintenance management” that conducts preliminary inspections and takes swift actions when anomalies are observed or predicted before fatal defects are actualized. Through this Strategic Maintenance Management, MLIT will try to protect the lives and assets of citizens to ensure their safety/security as well as to reduce lifecycle costs by extending the life of these facilities.



¹ This method of selecting the successful bidder depends not only on the bidding price but also the overall evaluation of factors other than the price.

² This system requires the bidder to submit an agreement guarantee with a certificate of reserved function issued after audit and assurance taken by financial institutions, etc.

³ A method of construction management. A method whereby the construction manager (CMR) performs all or part of the management work including design planning, construction order mode, process management, quality management and cost management, during each stage of design, order and implementation, from the ordering party's viewpoint, while maintaining neutrality in technical aspects.

Section 5 – Policy Evaluation, Project Assessment, Interactive Government

1. Promotion of policy evaluation

On the basis of the “Basic Plan on MLIT Policy Evaluation” that aims to achieve 1) citizen-oriented efficient government of high quality, 2) promotion of result-oriented government, 3) accountability to citizens, MLIT prescribes 3 basic methods of policy evaluation, which are policy assessment (project evaluation method), policy checkup (achievement evaluation method), and policy review (comprehensive evaluation scheme), and is implementing them by combining the evaluation methods on individual public works projects and individual research and development issues. In March 2009, MLIT reviewed about 4 subjects and used 236 indexes to check on the policies regarding 13 policy targets in August of the same year. Moreover, based on the directions of policy improvement of the evaluation performed on these, MLIT rearranged the budget and performed policy assessments on 40 new policies in November of the same year¹.

2. Severe execution of project evaluation

In order to plan further improvement of the work efficiency and implementation process transparency of individual public works projects, MLIT is building a consistent work evaluation system, which consists of evaluation at the time of new project adoption, re-evaluation and post-evaluation. Including the background data of the cost versus effect analysis of the evaluation at the time of new project adoption, re-evaluation and post-evaluation, details of the evaluation results are compiled to provide a project evaluation record and are presented on the Internet, etc.

Furthermore, in order to better the transparency of the public works project processes, MLIT plans to reflect regional opinions on the evaluation at the time of new project adoption of direct control projects, etc. and improve the pre-evaluation by third parties. At the same time, it also advances the evaluation time and publication time of direct control projects from the end of the year to the end of January.

Outline of the project evaluation and revision of the guideline of public works projects for MLIT

【 Purpose of project evaluation 】

Enhancing the efficiency and transparency on execution of Public works.

【 Position of project evaluation 】

Part of policy evaluation system stated in the Policy Evaluation Act (enforced on April 1, 2002)
Evaluating all public works based on the project evaluation manuals etc. for each project (excluding maintenance, disaster recovery)

- Evaluation at the time of new project adoption (since 1998)
- Re-evaluation (since 1998)
- Post-evaluation (since 2003)

【 Active announcement of evaluation results 】

- The evaluation results are made public on the Internet etc. in FY 2000.
- From 2004, the evaluation result details have been compiled to provide the project evaluation record including the background data of the cost/benefit analysis and are presented on the internet.
- From 2008, viewpoints when performing the re-evaluation (needs for the project such as investment effects, forecast of project process, cost reduction, etc.) were added to enhance the contents.

< New approach to project evaluation >

Focusing on more subjective evaluation performed by a third party and reflection of local advice to improve the transparency of the project process, contributing to the review of the bill in the National Diet.

○ Introduction of opinion sharing in major cities and prefectures

Listening to opinions about evaluation at the time of new project adoption of direct control projects from the urban and rural prefectures when they are adopted.

○ Enhancement of pre-examination by third parties

Listening to opinions about evaluation at the time of new project adoption of direct control projects from third parties. Improving verifiable data on project evaluation, evaluation committees, etc.

○ Contributing to review of bill in the National Diet

Performing evaluation at the time of new project adoption and re-evaluation of the direct control projects and releasing results until the end of January.
※ "The guideline on evaluation of public projects of the Ministry of Transport" was revised in H21.12.24 and the above contents were prescribed.

3. Administrative operation open to people, and promotion of interactive government

1) MLIT Hotline Station

On the occasion of MLIT policy promotion related closely to citizens' lives, it is important to understand citizens' opinions and requirements to a greater extent, as well as to develop a government connected directly with citizens. Therefore, the MLIT Hotline Station has been set up and an average of 800 opinions have been received every month.

¹ Website related to MLIT policy evaluation <http://www.mlit.go.jp/seisakutokatsu/hyouka/index.html>

2) Information supply to consumers

On top of the supervision that has been performed by the government, for the purpose of ensuring safety/security through supervision by the market and appropriate selection of consumers and the markets for them, MLIT has released the “Negative Information Search Website”, which gathers the punishment history of the enterprises related to buildings like housing and public transport institutions, on the MLIT website¹.

3) Better improvement on the transparency of project planning processes for social infrastructure development

On the occasion of infrastructure promotion, it is important to ensure transparency and fairness from the planning stage and obtain the understanding and cooperation of citizens. Therefore, in FY 2008, taking into account citizen participation, MLIT is renewing the guidelines on the standard mindset for the ideal way of carrying out technical/professional reviews on projects, multi-plan settings from the beginning of the project planning and the ideal way of carrying out project planning procedures up to the end of proposal selection from a comprehensive viewpoint, and is also working on further improvement of transparency.

¹ Project Evaluation website <http://www.mlit.go.jp/tec/hyouka/public/index.html>
Project Evaluation Record <http://www.mlit.go.jp/tec/hyouka/public/jghks/chart.htm>

Chapter 2: Realizing a Tourism Nation and Creating a Beautiful Country

Section 1 – Tourism Trend

1. Significance of Building a Tourism Nation

Tourism not only contributes to the development of all other areas of the nation's economy such as the revitalization of regional economies and an increase in employment opportunities, but also has significance in promoting mutual understanding with other nations. Accordingly, the realization of a Tourism Nation is an important pillar in our development strategies.

2. Present State of Tourism

(1) Tourism trends of citizens

In FY 2008, the average number of nights of domestic overnight travel per citizen was 2.36 nights and domestic travel consumption by citizens was 20.5 trillion yen in total. Compared with numbers in FY 2007, which were 2.42 nights and 20.2 trillion yen respectively, figures were almost moving sideways. On the other hand, due to a decrease in the number of overseas travelers, the amount of overseas travel consumption of FY 2008 was 5.5 trillion yen, which was less than that of FY 2007 (6.1 trillion yen).

Also, the number of Japanese tourists traveling overseas in 2009 decreased by 3.4% (about 540 thousand fewer people) and was around 15.45 million in total.

(2) Travel trends of foreign tourists visiting Japan

As a result of the decrease in the number of foreign tourists who visited Japan after September 2008, the consumption of foreign tourists who visited Japan in FY 2008 decreased to 1.3 trillion yen by 10.1% (0.1 trillions yen) compared with that of last year.

Affected by the worldwide sluggish economy triggered by the Lehman Shock and the high value of the yen, the number of foreign tourists who visited Japan in 2009 decreased to 6.79 million persons, a decrease of 18.7% from last year. However, a visa for individual travelers was established in July of that year for Chinese nationals. Taking it as an opportunity to reinforce promotion, the figure increased slightly compared to that of last year.

(3) Trends in the tourism industry

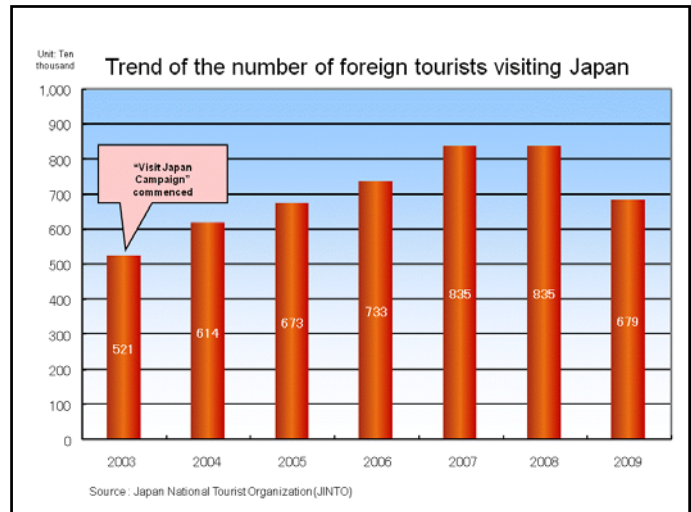
1) Tourist business

The total sales amount of major travel agencies in FY 2008 decreased by 5.5% compared with the previous year, to about 6 trillion 439.4 billion yen.

For overseas travel, it went well in Korean travel. However, due to the steep rise in the fuel surcharge and recession, the figure decreased by 9.6% compared with the previous year, to about 2 trillion 434.9 billion yen. For domestic travel, it progressed steadily in the first half, but the figure decreased by 2.9% compared with the previous year, to 3 trillion 943 billion yen due to business recession in the second half. For foreign travelers visiting Japan, because of business recession and the further rising value of the yen, the figure decreased by 1.7% compared with the previous year, to 61.3 billion yen.

2) Hotel and Hostel business

The average nationwide occupancy rate of major registered hotels in FY 2008 was 71.9%. Also, the percentage of major registered hotels and hostels that recorded deficits was 53.3% and 49.7% respectively. Compared with the previous year, the figures increased by 23.4 points and 14.8 points respectively.



Section 2 – Efforts to Realize a Tourism Nation

On the basis of the Tourism Nation Promotion Basic Law and the Tourism Nation Promotion Basic Plan, MLIT is promoting policies for realizing a tourism nation comprehensively and purposefully. The realization of a tourism nation is the most important subject, which must be put in a position as a pillar of the growth strategy of our country from now on. To push forward the efforts taken by the government completely and comprehensively, the Headquarters of Tourism Nation Promotion were established in December 2009. Under the headquarters, the working team for attracting foreign tourists, consortiums for tourism cooperation and working teams for division of holiday peak times, which coordinate within the related ministries and government offices and reinforce cooperation.

Furthermore, the “Japan Tourism Agency Commissioner Award” for recognizing the individuals and organizations that made great contributions to the promotion and development of tourism, was launched in FY 2009, and 13 individuals and organizations have been awarded since.

1. Creation of Internationally-Competitive, Attractive Points of Interest

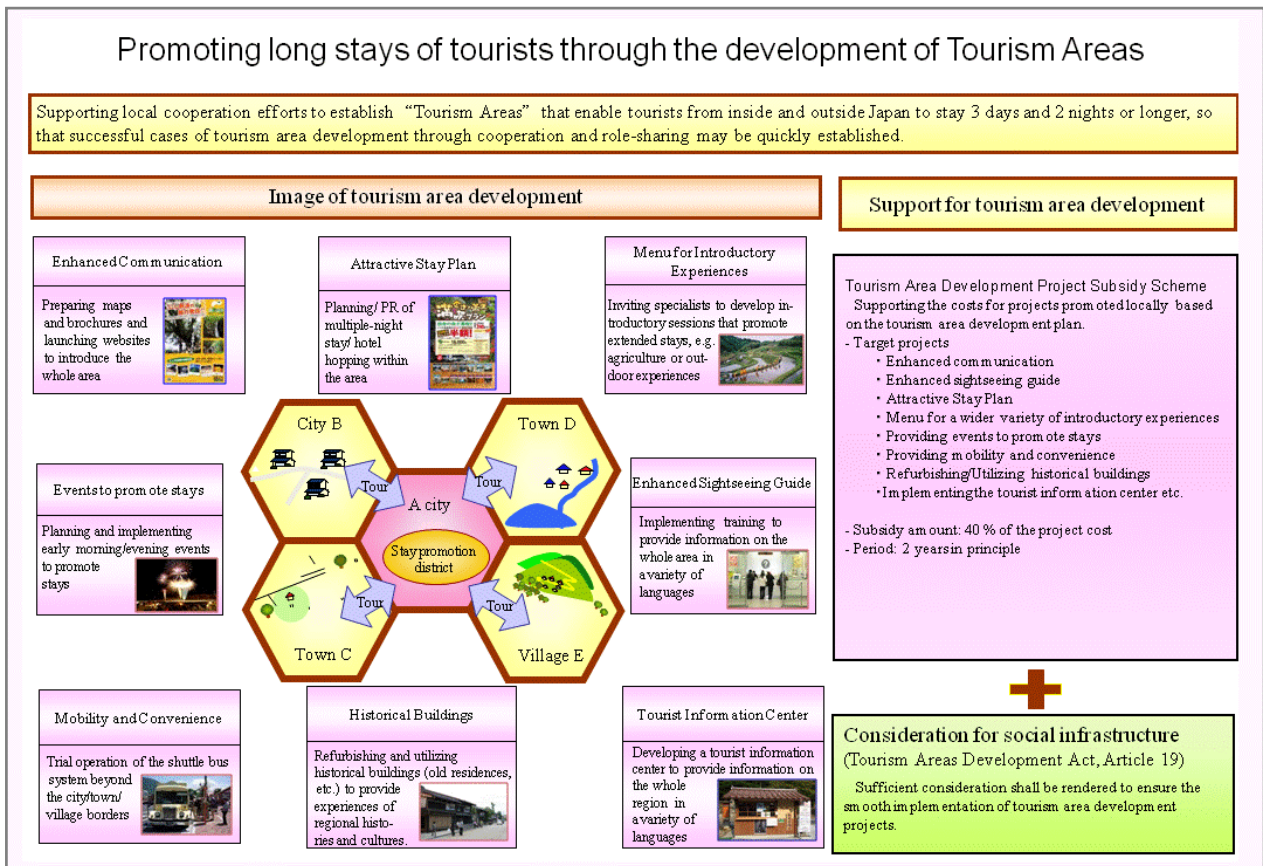
On the basis of the “Act on Promotion of Tourists’ Visits and Stays through Development of Tourism Areas” (Tourism Area Development Act), the “Tourism Areas,” consisting of numerous sightseeing spots in a wide range, are being developed, and the area formation of enabling the overseas/domestic tourists to stay over 3 days and 2 nights (or more) is targeted. The national government provides comprehensive support to the efforts made by regional cooperation. With the Tourism Area Development Project Subsidy Scheme¹ towards work implemented by private sector organizations for uplifting attractiveness to tourists and work on tourism resources utilization, MLIT provides support by cooperating with projects through invigoration project subsidies for farming, mountain and fishing villages. In FY 2009, 14 Development of Tourism Areas Implementation projects were authorized.

In addition, in order to implement the social infrastructure development of Tourism Areas more smoothly and effectively, MLIT set up communication meetings in each tourism area one by one and has been carrying out field studies since April 2009.

Moreover, based on the practical plans on the development of Tourism Areas that provide comprehensive support to projects related to efforts in tourism-centered area formation through various projects and policies under its control, MLIT provides support on the launch stage for regions that are planning the formation of tourism areas and on social infrastructure development projects related to the smooth promotion of tourism area development projects.

Also, MLIT compiled a set of excellent development cases of local tourism towns and communicated the information inside/outside to provide support for efforts towards the development of local tourism towns.

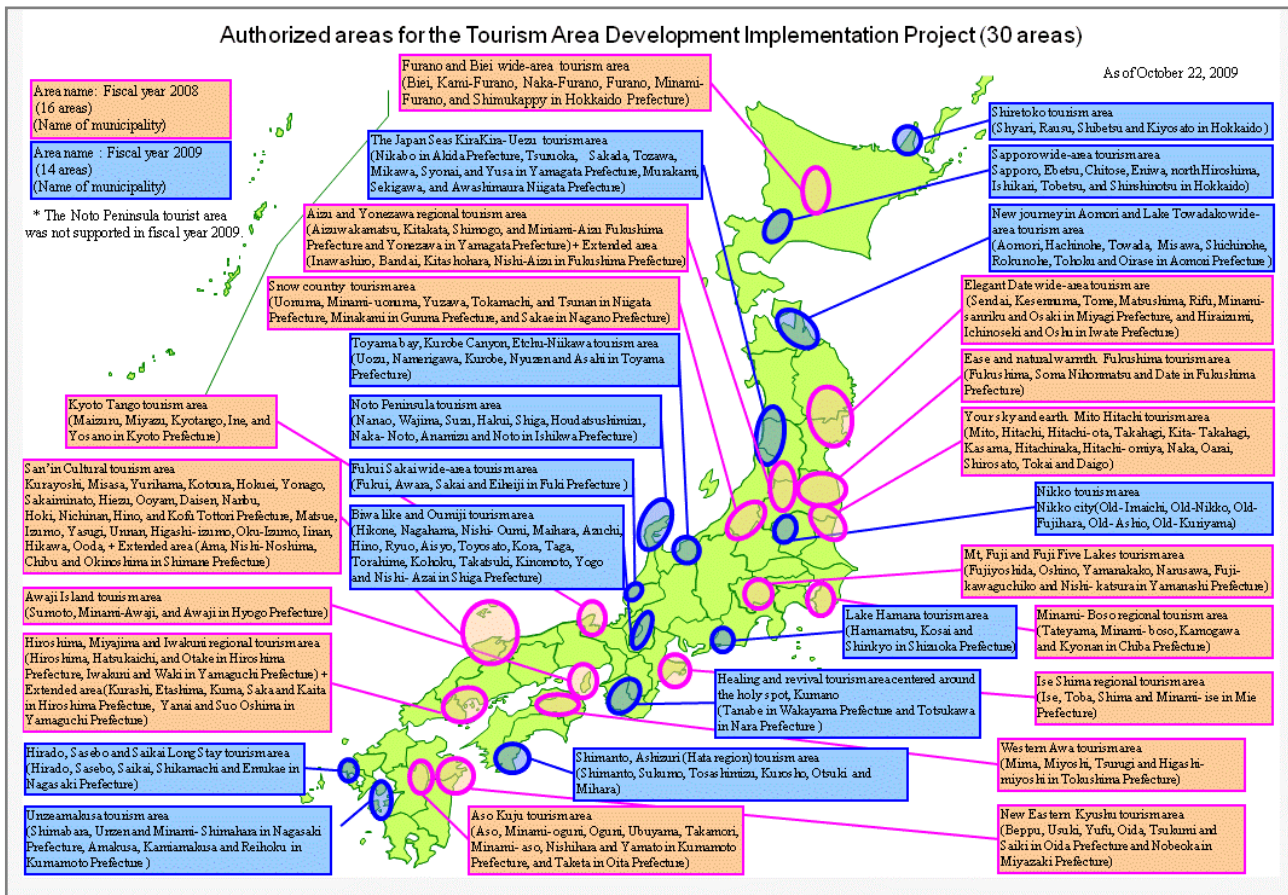
Furthermore, in order to encourage the creation of tourism products that maximize the attractiveness of tourism areas by the partnership and cooperation between regional tourism-related parties and travel companies, MLIT continues to hold the “Tourism Area Formation Advisory Conference” for each local block in FY 2009 and provides concentrated consultation to autonomous bodies, tourism-related organizations, NPOs, etc.



¹ According to the Tourism Area Development Plan drawn out by regional public organizations, parties that carry out tourism area development projects are responsible for preparing an implementation plan for tourism area development. The plan must be submitted for approval by the Minister of MLIT and be nominated by a third-party committee, that is, the Tourism Area Development Project Examination Committee. If the plan is adopted, subsidy support for project expenses can be received.

Authorized areas for the Tourism Area Development Implementation Project (30 areas)

As of October 22, 2009



2. Reinforcement of the International Competitiveness of the Tourism Industry and the Training of Talented Individuals to Contribute to Tourism Promotion

(1) Invigoration of the hotel industry

Starting with the hotel industry, MLIT has built a new business model for the tourism industry. For the purpose of popularization and awareness, 14 demonstration projects aimed at raising room occupancy and the enhancement of business cooperation/efficiency were implemented in FY 2009. Moreover, in order to support the extensive revitalization of hotel areas, seminars were held and advisories were dispatched.

(2) Training of talent to contribute to tourism invigoration

1) Promotion of policies of governments-industries-academia cooperation for training talented individuals for tourism

“Conference on the Cooperation of Industry-Government-Academia for Developing Tourism related Talents,” composed of universities with tourism faculties/departments, industrial associations, and related governments and agencies, was held to share information and issues regarding talent training. Also “Internship Model Projects” were conducted and the “Cooperation Practices of Industry-Government-Academia Working Group” was organized.

2) Establishment of a charismatic tourism school

In FY 2009, in order to train talented individuals who act as the key for tourism area invigoration, MLIT invited certified “Charismatic Tourism”¹ instructors from all over the country and established the Charismatic Tourism School for passing down know-how for success and organizing field experience activities etc., in 8 districts.

3) Support for talent-training efforts for tourism area formation

From October 2008, in order to encourage efforts in talent training for regional voluntary/independent tourism area formation, MLIT is working out guidelines, which act as the direction of regional talent training. Moreover, in addition to organizing the “Symposium of Tourism Area Formation” in June 2009, MLIT is continuing to build the regional network by setting up the “Talent Training Support for Tourism Area Formation”, etc.

4) Implementation of “Tourism Area Producer” model projects

In addition to finding/training external talents who lead efforts in regional tourism promotion, the “Tourism Area Producer” model business for talent-area matching was carried out in three districts in FY 2009. Moreover, MLIT is planning the

¹ As the group of people who lead tourism promotion to success and enhance the attractiveness of sightseeing spots, the “Charismatic Tourism Icons” are certified by a selection committee for the “best 100 Charismatic Tourism Icons” with the cooperation of the related ministries and government offices and are playing an active part throughout the country.

popularization and enlightenment of the “Tourism Area Producer” system, through presenting the achievement of “Model Business” in the “Symposium of Tourism Area Formation” etc.

5) Promotion of Tourism Nation Education

In order to cultivate the mindset of “go travel” in children’s hearts and foster the pillars of future area formation, MLIT is promoting popularization of volunteer guides among children/students and also working on the promotion of “Tourism Nation Education”.

3. Promotion of international tourism

(1) Advertising Japan’s attractiveness as a travel destination to overseas countries

In order to achieve the target of reaching 10 million foreign visitors to Japan by 2010, MLIT promotes a Japan travel promotion project for advertising Japan’s attractiveness to overseas countries, focused on the top 12 countries/regions (Korea, Taiwan, China, Hong Kong, Thailand, Singapore, Australia, the United States, Canada, the United Kingdom, Germany, France) in terms of the number of tourists who visited Japan. Specifically, the promotion is roughly classified into 2 aspects. One is a project for raising the awareness of the public by advertising Japan’s attractiveness for calling attention to Japan as a travel destination, while the other is a project of attracting tourists by connecting advertising information practically to visiting Japan. The former project includes work on information posting via the Internet, advertisements in overseas mass media and participation in the Japan booth of overseas tourism exhibitions. The latter project includes inviting overseas travel companies/agencies to Japan, holding business discussion meetings, making common advertisements of products of Japan visits, etc.

In 2009, the “Hong Kong - Japan Tourism Exchange Year” was launched between Hong Kong and Japan. Hong Kong and Japan created and used a common logo and poster, and planned the expansion of exchanges through organizing the International Travel Expo Hong Kong together and utilizing sports and cultural events. In addition, because of a decrease in population flow due to the prevalence of a new subtype of influenza, the Exchange Year was extended by three months until 31st March 2010 and continuous promotion was carried out.

In October 2009, the 4th China-Japan-Korea Ministerial Conference on tourism was held in the Chubu District (Nagoya, Takayama). Regarding common measures for overcoming problems such as the global financial crisis and a new subtype of Influenza, as well as efforts on the expansion of population flow by utilizing the 2010 Shanghai Expo in China, Visit Japan Year and Visit Korea Year, the cooperation of the three countries was reinforced.

(2) Promotion of conducting and attracting international conventions

The efforts on conducting and attracting international conventions has been taken so far, and a wider range of international conventions (MICE¹) such as the meeting of enterprises, incentive/training travel of enterprises, events, exhibitions and fairs, are bringing deeper meaning to the aspects of increasing foreign tourists who visit Japan, economic effects, regional internationalization and invigoration, etc.

Therefore, to promote not only international conferences, but also the all-round MICE, MLIT started to promote the conduction and attraction of MICE actively through the “MICE Promotion Action Plan” and the steady implementation of the plan in July 2009.

From now on, MLIT will focus on exhibiting Japan as a suitable place for spreading MICE to foreign countries. At the same time, education of citizens on the meaning of MICE will be carried out widely while this has not yet penetrated Japan, taking special efforts concentrating on MICE promotion for 2010 – the “Japan MICE Year”.



(3) Ensuring the system of receiving foreign tourists

As measures for public transportation corporations, mainly in the subways of urban areas, the improvement of convenience for foreign tourists is being implemented, for instance, the introduction of a numbering system for lines and station names by using both letters and numbers. In order to further promote such measures, the “Act on Promotion of Inbound Tourism through Enhancing Travel Convenience for Foreign Tourists” imposes a best effort obligation on public transportation corporations for endeavoring to enhance the provision of information². The Commissioner of the Japan Tourism Agency places a special emphasis on the necessity of enhancement for those sections that expect high use rate by foreign tourists. The corresponding public transportation corporations (248 corporations) are obliged to draw out and implement the Implementation Plan on

¹ An acronym for the meeting of enterprises (Meetings); reward/training trips held by enterprises (Incentive Travel); international conventions (Conventions); events/exhibitions/fairs (Events/Exhibitions)

² Necessary measures for promoting the provision of information in foreign languages to enable foreign tourists to use public transportation with ease

enhancing the provision of information.

For the guides who provide charged interpretation and information services to foreign tourists, in order to improve the reception quality to foreign tourists and contribute to international tourism promotion, on the basis of the “Act on Tour Guide-Interpreters”, the Tour Guide-Interpreter Examination has been conducted, and the number of registered Tour Guide-Interpreters was 13,530 as of April 2009. In addition, in order to develop the reception environment that is ready for an age with 30 million foreign tourists, the appropriateness of the Tour Guide-Interpreter System has been under review since June of that year. Moreover, it is desirable that various activities of promotion of visits to Japan are widened from the setting up of measures relating to the reception system for foreign tourists and endowing an official appreciation for the efforts on advertising Japan’s attractiveness to foreigners. To further promote visits to Japan to foreign tourists, the Minister of MLIT appointed 63 people who had taken excellent measures and could act as role models for other related parties as “YŌKOSO ! JAPAN Ambassadors” until the end of December that year.

Furthermore, based on the “Act on Hotel Development for International Tourism”, the registration of hotels and hostels that are suitable for foreign tourists is carried out from the viewpoints of both hard and soft aspects. As of December of that year, 1,070 hotels and 1,848 hostels had been registered.

4. Improvement of Conditions for Promoting Tourism

(1) Promoting holiday acquisition and division

Regarding the division of holiday acquisition described in the “New Development Strategy” (Basic Policy), the symposium was held on 26th February 2010 that acts as a place of challenges for a wider field. As well as continuing popularization and awareness enhancement, MLIT carried out an investigation into citizens’ awareness of the division of holiday acquisition and golden week/summer holidays and the economic effects induced by travel in silver week, September 2009.

In addition, the working team for division of holiday peak times of the Headquarters of Tourism Nation Promotion is reviewing the productivity improvement of the tourism industry resulting from demand equalization and stabilization of employment, as well as specific policies and measures taken by the whole government.

(2) Promotion of tourism based on the view of universal design

In order to promote tourism based on the view of universal design, a checklist was made for the stage of designing and developing travel products that senior citizens and disabled persons can easily participate in.

(3) Measures towards consumer protection for dealing with environmental changes in travel transactions

In the context of accumulated problems related to safe, secure and fair transactions for consumers, the Consumer Affairs Agency was set up in September 2009. The Japan Tourism Agency and the Consumer Affairs Agency have commenced cooperation to work out measures regarding consumer protection as stated in the Tourism Industry Act.

(4) Efforts to encourage Japanese to travel overseas

“Measures for simplifying overseas travel for citizens”, “policies for young people” and the “promotion of Two Way Tourism in cooperation with VWC¹ projects”, are the 3 pillars of outbound policies, which were integrated by the Japan Tourism Agency in December 2008. Based on these outbound policies, issues that must be taken care of by the union of citizens and governments are being worked out with the cooperation of related parties.

Moreover, in order to ensure the security of overseas travelers, the Japan Tourism Agency communicates closely with the Ministry of Foreign Affairs to thoroughly communicate information to overseas travelers and to develop emergency communication systems for travel agencies.

(5) Creation of new travel models

To encourage the creation and distribution of “New Tourism” that utilizes the unique attractiveness of the region, demonstration projects were implemented continuously from FY 2008.

Moreover, starting from January 2010, the “Tourism Cooperation Consortium” set up under the Headquarters of Tourism Nation Promotion is carrying out a review of comprehensive promotion policies about the diversified tourism menu, such as eco-tourism, green tourism, cultural tourism, industrial tourism, sports tourism, and medical tourism, with the cooperation of related ministries and government offices.

(6) Developing tourism statistics

Currently, prefectures record statistics on incoming tourists by themselves and with their own methods. The “Common Standard for Statistics on Incoming Tourists,” scheduled to start from FY 2010, was formulated in December 2009 in order to unify items and methods for tourism statistics. Additionally, a full introduction of TSA², which has been employed

¹ Visit World Campaign

² TSA (Tourism Satellite Account; travel/tourism satellite calculations) are calculations for connecting the tourism economy to the framework of the System of National Accounts (SNA). The Satellite Account is for connecting economic activities, which are not included in the traditional framework, to the SNA to take responses to new economic concepts. In Japan, this is being tried in the aspects of environment, nursing and NPO, etc.

internationally, has been reviewed.

In the future, the efforts on enhancing tourism statistics on trends among foreign tourists visiting Japan will be continued.

Section 3 – Developing Scenic Landscapes and Other Aesthetic Land Planning

1. Developing Pleasant Landscapes

(1) Promotion of the measures based on the Three Laws on Landscape and Greenery

The landscape administration organizations¹ set up based on the “Landscape Act” increased to 443 as of March 2010 and landscapes plans were formulated by 216 organizations to promote measures for developing pleasant landscapes. Furthermore, “outdoor advertisement related administration” is being pushed forward, including the introduction of an outdoor advertisement businesses registration system pursuant to the revised “Outdoor Advertisement Act” and the enactment of ordinances to regulate outdoor advertisement (27 organizations has completed the enactment of ordinances by April 2009) by municipalities that were approved as landscape administrative organizations. Moreover, the development of pleasant landscapes as well as the formation of green areas that are comfortable for living in, are being promoted; for instance, Nagoya City and Yokohama City are taking the lead in applying the Green Space Scheme based on the “Urban Green Space Conservation Act”.

Also, for regulation and guidance policies based on the “City Planning Act” and the “Building Standards Act”, measures regarding the formation of pleasant landscapes by regional public organizations are being pushed forward.

(2) Operating the Landscape Assessment (landscape evaluation) System

For developing social infrastructure for landscapes, landscape evaluation is carried out while listening to a variety of opinions from the local residents affected by the projects and from academic experts, etc. The Landscape Assessment (landscape evaluation) System is used to reflect the results in project plans.

2. Development of attractive landscapes the public can be proud of

(1) Promoting the removal of power poles

MLIT is promoting extensive removal of utility poles on major non-highway roads in addition to highway roads in downtown areas to ensure secure and comfortable traffic areas, forming pleasant landscapes, preventing disasters, and improving the reliability of information communication networks and promoting tourism/regional invigoration, etc.

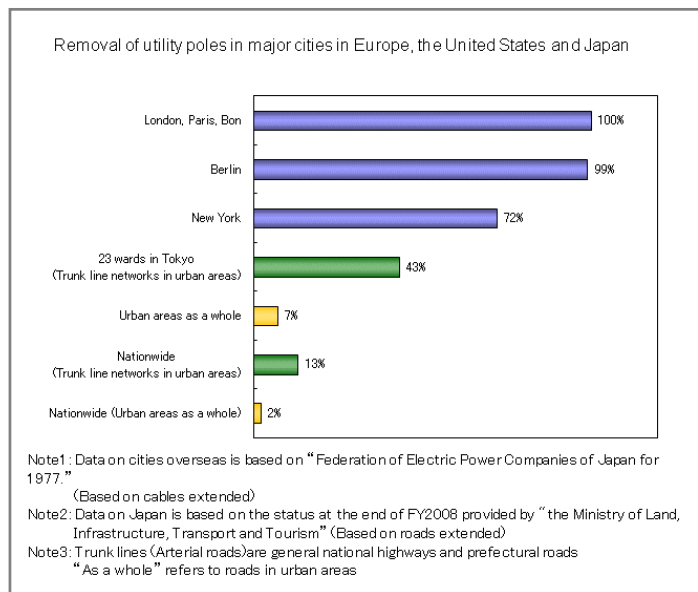
(2) Promoting the “Scenic Byway Japan” project

With the cooperation of various parties, with the aim of formulating beautiful national landscapes by using the street as a stage and utilizing local resources, and to contribute to tourism promotion and regional stimulation, the “Scenic Byway Japan” are being promoted. A total of 116 routes have been registered as Scenic Byway Japan as of the end of March 2010. The activities for these routes that contribute to the formation of beautiful landscapes through the utilization of roads, and the improvement of regional attractiveness are supported.

(3) Promoting the development of waterside spaces

Combining the intrinsic nature, culture and history of rivers, MLIT is promoting the development of water-friendly and scenic rivers into nearby natural environments that everybody can enjoy through “diversified natural river development”, “river area development”, and “river-side schools for fun”.

In addition, MLIT is working on the development of waterways that utilize public sewerage and rainwater ditches and facilities to utilize processed sewage water in waterways, based on the system of next generation sewerage support projects so as to reclaim and create waterways that utilize processed sewage water. Furthermore, good water environments are being preserved and created by appropriately implementing sewage treatments.



¹ Municipalities that are approved by prefectures, ordinance-designated cities, core cities or governors of prefectures, to execute landscape administration.

3. Community development that makes better use of the local natural environment, history and culture

1) Conservation and utilization of national memorial affairs and intrinsic national cultural legacies

In order to conserve and utilize national memorial events or intrinsic and excellent national cultural legacies, the development of national government parks, set up upon a Cabinet meeting decision, is being promoted. Beginning with Showa Memorial Park, 5 parks have been opened. In FY 2009, the development of the surrounding areas of the Kitora Tumulus Area was carried out in “The Asuka-Nara Palace Site Historical National Government Park” (Asuka Zone).

2) Conservation of historic landscapes in ancient cities

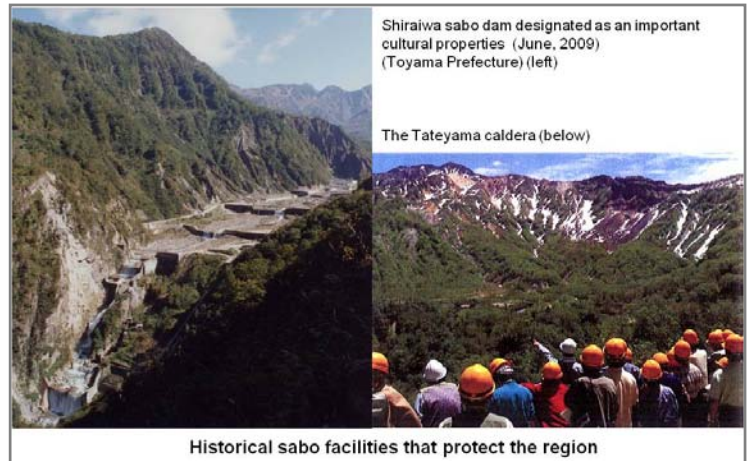
In ancient cities such as Kyoto City, Nara City and Kamakura City, restrictions on the construction/reconstruction/renovation of buildings and development of residential areas are implemented based on the Ancient City Preservation Act. At the same time, MLIT is working on the conservation of historic landscapes in ancient cities through implementing the Ancient City Conservation Project of land purchase, and popularization and educational activities.

3) Conservation and utilization of historical public buildings

For contributing to the development of regional areas, MLIT is promoting the conservation and utilization of historical government facilities that have been familiar in the region for a long time. At the same time, measures that contribute to the formation of new exchange places are being pushed forward, such as environmental development focusing on historical sabo facilities and their surrounding environments as regional tourism resources.

4) Promotion of community development through the maintenance and improvement of historic landscape

To support community development through historical appearance and atmosphere created by historical buildings (e.g. castles and shrines), streets of samurai housing, and activities reflecting history and tradition such as ritual festivals and events, the “Law on the Maintenance and Improvement of Historic Landscape in a Community” was established in 2008. As of 31st March 2010, support for historical community development is being provided to 16 approved municipalities.



Chapter 3: Promoting Regional Revitalization

Section 1 – Initiatives towards Regional Revitalization

The government is aware that regional revitalization is an important topic. Therefore, under the integrated system of regional revitalization (the Headquarters of Regional Revitalization Integration), positioned across the ministries and government offices and policies, initiatives towards regional revitalization are being pushed forward.

Furthermore, regarding the “Project on Revitalization of Local Areas” that supports the beginning stage of projects that are initiated from the ingenuity and creativity of local residents and private sectors, 191 new projects and 96 renewed projects were adopted in FY 2009. Moreover, for the promotion of regional revitalization measures, it is more necessary to listen to local opinions. Therefore, the national consultation system has been restructured to a one-stop mode and a system of ensuring that regional revitalization measures are consistently followed is being built.

In order to realize the living convenience and a local economic society with bustle and vitality, MLIT is also pushing forward the invigoration/revitalization of local public transportation such as local railways, buses, routes on remote islands; the improvement of traffic nodes; the promotion of comprehensive and strategic traffic measures; the invigoration of core urban districts and the revitalization of urban areas; the shift to intensive urban structures; support for community-based creative measures for tourism promotion; and the development of construction through the promotion of fair-price contracts, industrialization of regional integration, etc. Additionally, for the purpose of invigorating regions with a rapidly declining and aging population, MLIT is working on developing areas that are comfortable for living in, from the viewpoint of the local residents, through providing support for regional development activities by “the new public sector” with the cooperation of various parties such as NPOs; ensuring basic living services such as medical and shopping by village function invigoration; and securing transportation for daily life by supporting the introduction of community buses.

Regarding the revitalization of cities, the Urban Renaissance Headquarters in the Cabinet is working on 1) the promotion of Urban Renaissance Programs on international airports and regional disaster prevention bases; 2) the promotion of city revitalization by private sectors based on the “Act on Special Measures concerning Urban Reconstruction”; 3) the promotion of nationwide city revitalization that utilizes the regional development subsidy.

Section 2 – Promoting Policies that Support Regional Revitalization

1. Initiatives towards Enhanced Autonomy and Discretion of Regions and Private Sectors

(1) The expansion and better operation of various subsidies

The “Regional Revitalization Infrastructure Reinforcement Subsidy” is the subsidy across ministries and government offices for collaboratively developing facilities with similar functions according to the regional revitalization plan. It is composed of the “Road Development Subsidy” (roads of prefectures, regional farms and forests), the “Sewage Processing Facility Development Subsidy” (public drainage, villages’ drainage facilities and purification tanks) and the “Port Development Subsidy” (facilities of regional ports, 1st class and 2nd class fishing ports). Up to March 2010, the total number of approved regional revitalization plans was 1,365 and this subsidy is being utilized for the MLIT related facilities projects based on 896 regional revitalization plans.

The “Regional Housing Subsidy” is a scheme for supporting regional public organizations to utilize regional autonomy and ingenuity on measures for the regional development of public housing and the surrounding living environment while promoting measures comprehensively and deliberately. According to the regional housing plan drawn by regional public organizations, the country grants the one-time subsidy yearly. By the end of FY 2009, 365 regional housing plans had been submitted and this subsidy is being utilized for the wealthy residential development that corresponds to diversified regional housing needs.

The “Community Renovation Subsidy” is a support measure for encouraging nationwide city revitalization through uplifting the autonomy and discretion of the region and implementing region-led individual development. According to the city revitalization development plan drawn by the prefecture, the country grants the one-time subsidy yearly. At the end of December 2009, this subsidy is being utilized for community renovation that corresponds to different issues throughout 1,278 districts.

The “Regional Vital Infrastructure Creation Subsidy” is a scheme that was established in FY 2009 for the purpose of creating regional vital infrastructures by supporting other social infrastructure measures with the main focus on the roads constructed by regional public organizations. According to the regional vital infrastructure creation plan drawn by regional public organizations, the country grants the one-time subsidy yearly. By the end of March 2010, 415 regional vital infrastructure creation plans have been submitted and this subsidy is being utilized for other road-focused infrastructure developments and soft projects.

Furthermore, starting from FY 2010, individual subsidies towards regional public organizations administered by MLIT was abolished including the “Regional Housing Subsidy”, “Community Renovation Subsidy” and “Regional Vital Infrastructure Creation Subsidy”, on the other hand, the “Infrastructure Development Integrated Subsidy” was established as a comprehensive

subsidy that gives more liberty to regional public organizations and enables them to make the most of their ingenuity.

(2) Developing a unitary system that supports regional revitalization

Through the regional invigoration supporting team, the enhancement of a consulting system for efforts towards regional revitalization is being carried out locally. At the same time, in response to needs, the nation's regional branches and municipalities work together to form "Specific Regional Project Teams" towards the realization of concrete projects. Also, useful information¹ for regional development is communicated to support regional revitalization.

(3) Promoting the utilization of private sector expertise and funds

To plan the reinforcement of the growth and competitive power of local cities, support is provided for the Private Sector City Development Project approved by the Minister of MLIT, which cooperates with Community Renovation Subsidy projects performed by regional public organizations. At the same time, support is also provided for the local-participation-type community renovation fund, which gives help to community renovation projects by regional residents.

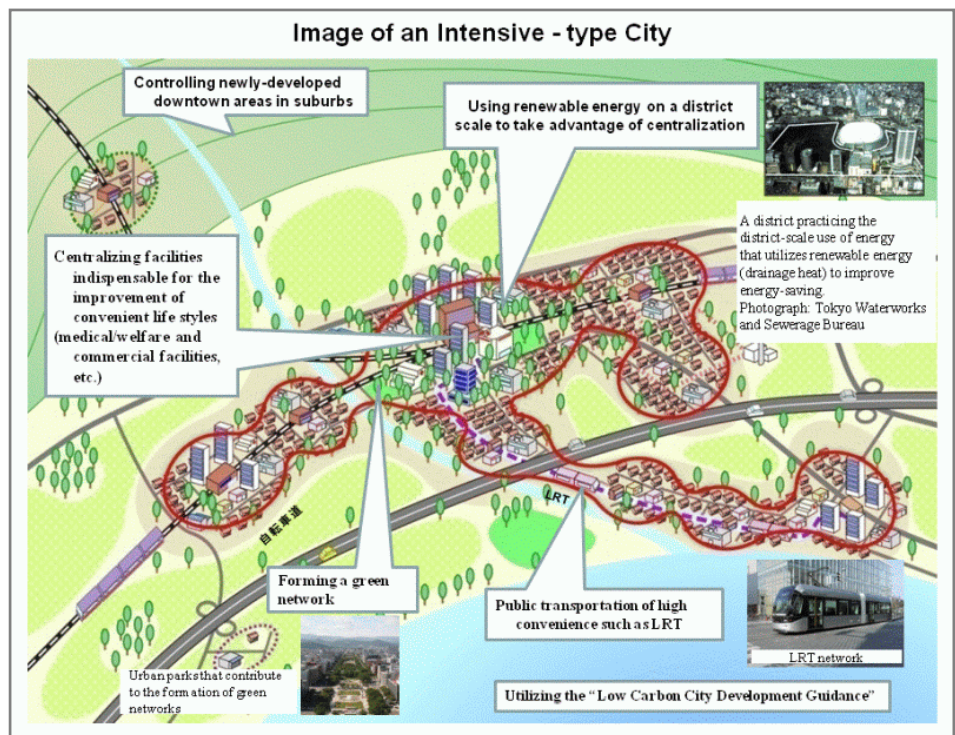


2. Comprehensive Initiatives to Realize Intensive-Type Urban Structures

In the context of a rapidly declining and aging population, to cope with the earth's environmental problems and the efficiency enhancement of city management, it is necessary to change the nature of city development, which has been focused on the expansion and growth of the city in the past. In light of this, the realization of "Intensive-type Urban Structures" is important.

For the realization of such urban structures, it is important to gather the necessary urban functions for living in a place near the main streets and the traffic hubs in the city, such as medical services, nursing/welfare, education, and cultural facilities; to improve the convenience of public transportation; and to ensure opportunities for various gatherings and lively exchanges. By carrying out these measures, positive effects can be expected, i.e. it will be possible for people from every district of the area to enjoy these services, and the creation of new industries and employment chances will be initiated. Moreover, through promoting the "development of walkable communities" focused on three forms of transportation, which are walking, bicycles and public transport; and improving the energy efficiency by taking advantage of centralization, the effect of environmental burden reduction can also be expected.

Additionally, Japan is also supporting community renovation of every region and city by taking various measures, which are the promotion of a comprehensive traffic strategy that includes public transportation development such as LRT, traffic hub improvement and environmental development for bicycles and pedestrians; the promotion of the street development strategy such as the formation of gathering spots through street vitalization and promotion of living downtown, as well as controls on new street development in suburban areas; the formation of green networks such as the effective utilization of natural/unused energy; the development of urban parks; the conservation/creation



¹ Regional Planning Information System - Repis: <http://www.mlit.go.jp/sogoseisaku/region/chiiki-joho/index.html>

of wooded areas and green public facilities; the formulation of “Low Carbon City Development Guidance” that indicate the methodology and basic concept towards CO₂ reduction by the units of city and street.

3. City and Infrastructure Development by Utilizing Regional Characteristics

(1) Urgent development of roads in city planning that are highly attractive for investment from private sectors

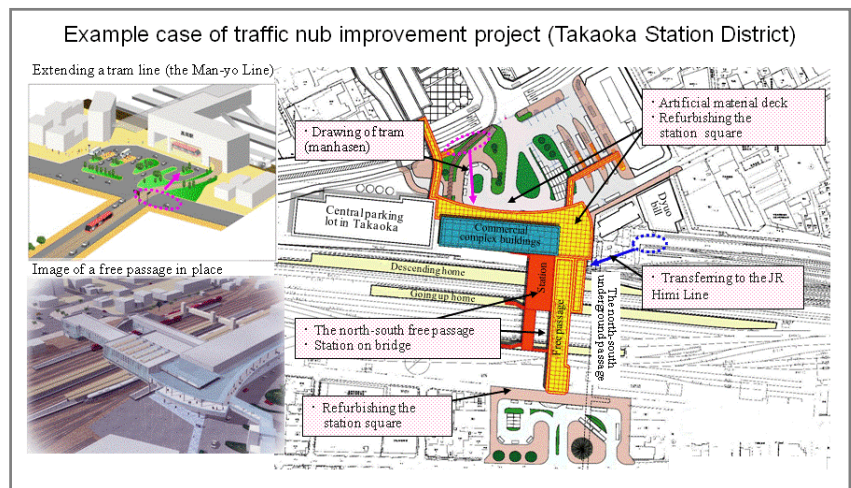
The development of roads in city planning is playing an important role in city revitalization as it induces reconstruction along the road. With those routes having problems in terms of project progress due to the hindrance of few land purchases, the government focuses on providing support to the routes with a completion schedule (120 project hosts and 403 routes as of 1st April 2009) announced by regional public organizations (project hosts). Also, the government promotes the early actualization of project effects and endeavors to perform appropriate project management.

(2) Development of traffic hubs

Traffic hubs, such as railway stations and bus terminals, centralize various transportation facilities. They provide high convenience and possibilities as the core of city revitalization because they gather a large number of people. Therefore, projects on traffic hub improvement, city transportation system development and comprehensive railway improvement are utilized to enhance the convenience of mutual transfers between transport organizations, unify urban districts separated by railways and smoothen the city traffic/strengthen the functions of central traffic. In FY 2009, Traffic Hub Improvement Projects were conducted at 150 spots (such as the south exit area of Shinjuku Station in Tokyo Metropolis), City Traffic System Development Projects at 50 spots (such as Takaoka Station in Toyama Prefecture), Integrated Railway Improvement Projects at 6 spots (such as Keikyū Kamata Station in Tokyo Metropolis).

Moreover, three spots (such as Nogata Station in Tokyo Metropolis) adopted both the projects on road/city and railways at the same time and conducted an integrated project at three spots such as Nogata Station in Tokyo.

Furthermore, a situation whereby a council formed between regional public organizations and railway companies formulate plans is most appropriate in an overall context, not just so the facilities are supported to conduct station/region cooperation projects that aim for efficient project implementation. One such project has been conducted in the south-area of Sannomiya Station (Kobe City) in an integrated promotion project together with a project on the usability enhancement of station facilities of Hanshin Sannomiya Station.



(3) Promotion of measures on railroad crossings

Urgent measures for “non-open railroad crossings¹” mostly located in urban centers are required, as they have been causing railroad-crossing accidents and chronic traffic congestions. With this in mind, with the cooperation of road administrators and railway companies, the general inspection of traffic conditions of railroad crossings was carried out for railroad crossings throughout the country in FY 2006 and around 2,000 railroad crossings were taken out as they were deemed to require immediate measure reviews including “non-open railroad crossings”. As a result, the continuous grade separation project to remove railway crossings and expand walkways for improving the security of railroad crossings etc, is being pushed forward urgently with focus.

(4) Wide-area infrastructure development for attracting enterprises

Enabling each region to attract and accumulate highly competitive growing industries generates significant effects in the aspects of competition/cooperation in East Asia and regional revitalization. Therefore, to work out measures with regional characteristics, it is highly important to invest intensively in necessary infrastructure including airports, ports, railway and wide-area regional highway networks as well as to promote policies for supporting regional employment expansion and economic revitalization.

1) Enhancement of airport functionality

The air network, connecting all places inside and outside the country, supports the regional tourism promotion and economic activities of enterprises and has a significant impact on regional revitalization. Especially in recent years, due to economic

¹ Railroad crossings that keep shut over 40 minutes per hour during rush hours due to the high frequency of trains passing through.

globalization induced by international labor division, the importance of air transportation with excellent speed is increasing. The enhancement of airport functionality is being carried out through expanding freight aprons.

2) Port development

In recent years, the expansion in the size of ships for bulk freight¹ transportation, the increase of high functional needs for logistics and the increase in coastal commercial lands are continuing. Therefore, to comprehensively develop multi-purpose international terminals for enabling large ships to pull into shore, formulation of “coastal industrial areas,” including increasing the transportation efficiency of bulk freight, is being promoted. By conducting these measures, the improvement of port functions according to enterprise needs and commercial land promotion are being pushed forward.

3) Railway development

The trunk railway network laid throughout the country, as the main artery of passenger/freight transportation, promotes inter-regional exchange, encourages industrial land development, enables regional economic revitalization and gives vitality to regional life. In particular, railway freight transportation has served an important function in the transportation of industrial supplies supporting regional economy. In recent years, the rail service has been selected as the transportation method for the local development of large-scale factories and accomplishes this function in commercial land in the regions.

4) Road development

From the viewpoint of enhancing logistics efficiency and transportation convenience, over 80% of newly constructed factories are located within 10 km from a highway interchange. At the same time as reinforcing international competitiveness by realizing speedy and smooth logistics, the development of trunk road networks consisting of high standard highways and regional high standard roads is continuing with the aim of regional independence and industry promotion.

(5) Promotion of various businesses and systems that have a close relationship with regions

1) Road Station

A “Road Station” is a facility located along the road with three functions, which are “Rest” such as car parks and restrooms, “Information Communication” with road and local information, and “Regional Cooperation” that promotes the exchange between the regions and road users, and among regions themselves. Up to March 2010, 926 spots were registered. Moreover, the additional functions of recovery activities or evacuation spots during disaster and disaster prevention spots are being implemented.

2) Promotion of river-area development

Toward the municipality project on uplifting regional attractiveness by utilizing rivers and riverside areas as the core of regional development/tourism, support and promotion from hard aspects such as development of unifying riversides spaces with regions, and soft aspects such as regulation alleviation, are being carried out.

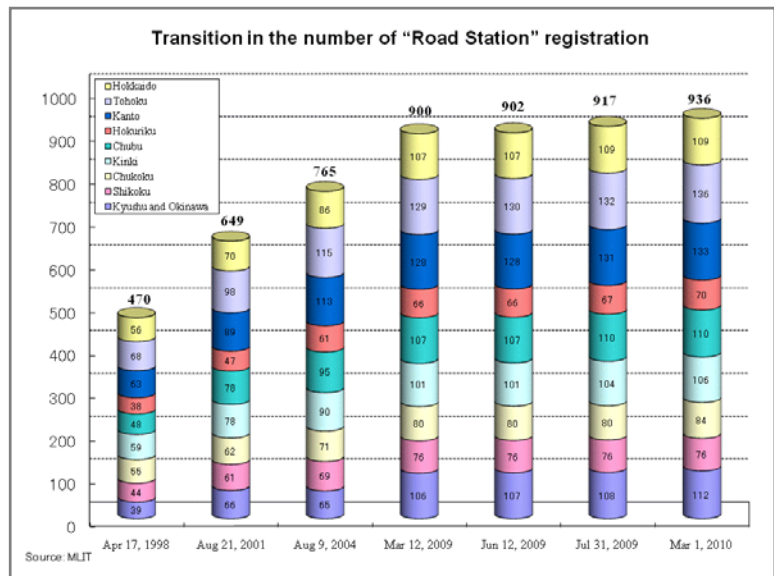
3) River management based on regional characteristics by participation of local residents

By entrusting people who possess professional knowledge and have enthusiasm for developing beautiful rivers as river environment conservation monitors, conservation/creation works, well-ordered use and the activities of popularization and education are carefully being carried out. Furthermore, by entrusting people who often come into contact with rivers and are concerned about river protection as river protection monitors, efforts are made on the collection of river management information, and popularization and enlightenment of river protection attitudes including discovery of illegal rubbish disposal in rivers and abnormality of river facilities.

Moreover, dry riverbeds are opened as flowerbeds for the local residents and volunteer groups of river cleaning and mowing. Also, the “Love-river System” for the formation of a deep-rooted and friendly riverside space in the region is being promoted. In addition, by forming the agreement of citizen participation river management with local citizens, the residents/autonomies and river administrators are cooperating to perform river management (such as cleaning and mowing) in specified river areas.

4) Support for measures in coastal areas that utilize regional characteristics

For the purpose of invigorating coastal usage and uplifting their attractiveness as a tourism resource, numerous coastal areas over a wide area were targeted for enabling the formulation of a working plan for the cooperation of various parties and the development of coastal conservation facilities and convenient facilities for coastal users, and expansion of the coastal environment development project in FY 2008 was promoted.



¹ A general term for freight loaded on to the ship hold without any wrapping/packing.

5) Harbor-focused regional promotion

Support is being provided through the “Harbor Promotion Subsidy” for the purpose of invigorating coastal usage and promoting measures for regional invigoration in prefectures with coastal areas through harbor promotion. By FY 2009, 42 projects of the “Harbor Promotion Plan” had been approved. Also, the utilization of “resident participation regional development funds” towards harbor region development has been promoted from FY 2008 and support is provided for activities carried out by civil groups.

Moreover, “Harbor Oases” are developed through using harbor/coastal facilities as a base to communicate regional information or an exchange base for local residents and tourists. As of the end of FY 2009, 48 harbors had been registered. In October 2009, the “Harbor Oasis National Council” was established for the purpose of forming places for the reciprocal exchange of harbor oasis information and carrying out projects concerning national harbor oasis promotion jointly.

In addition, measures are being taken on harbor-focused regional promotion, such as calls for promotion of local and overseas cruise ships through the functional improvement of passenger terminals.



6) Development of marine leisure spots

The establishment of “Marine Stations” as bases for marine leisure and regional invigoration is being promoted. Also, measures that raise the concern of citizens over oceans are being implemented, such as various marine events that families, children and disabled people can experience. In addition, policies that enable wider utilization of fishing ports by citizens, including the use of pleasure boats, is being reviewed with the cooperation of the Fisheries Agency, in order to advance the development of appropriate utilization environments.

(6) Active promotion of cadastral survey

The progress of a cadastral survey that checks every detail of land boundaries is slow especially for those in urban districts. Therefore, the cadastral survey is being pushing forward actively, such as by carrying out a land utilization promotion survey for preparing basic data on street surroundings in important areas in urban districts.

(7) Utilization of deep underground areas

For the smooth implementation of high-publicity projects in the three major metropolitan areas based on the “Act on Special Measures concerning Public Use of Deep Underground”, technical reviews on the smooth examination and the use environment of the deep underground area information system are being developed.

(8) Construction of area-management by regional communities

To promote spontaneous efforts (area-management) for improving and maintaining good regional environments and regional values by the residents, support for information collection by area-management activity groups and model activities was provided. Moreover, information is being provided through creating the “Area Management Promotion Manual” and establishing the “Recommendation for Area-Management”¹ website. Moreover, from the viewpoint of effective land usage and appropriate land price formation, the popularization/promotion of rational management of corporate and public real estate is being carried out.

4. Independence and Revitalization of Expanded Regional Blocks, and Construction of Regional/National Land

(1) Independence and revitalization of expanded regional blocks

For realizing regional revitalization and continuous development, it is important to bring out regional wisdom and ingenuity and implement measures comprehensively. Therefore, the Plan on National Land Development (nationwide plan) is aimed to construct national land of which the diversified regional blocks develop independently. In order to implement measures for fitting the specialties of each regional block, the Plan on National Land Development (nationwide plan) was formulated in August 2009. Moreover, regarding the government-citizen cooperation party working on regional invigoration with the cooperation of various government-citizen parties for each policy issue, the Regional Independence and Growth Strategy Committee of the National Land Council considered a system for granting legal responsibilities and authorities to be necessary. Additionally, in the context of the rapidly declining and aging population, to ensure the supporters of regional development and to promote regional independence/invigoration, it is believed that regional development by the cooperation of various parties,

¹ http://tochi.mlit.go.jp/tocsei/areamanagement/web_contents/index.html

with the concept of “the new public sector,” is necessary.

1) Utilization of coordination expenses for the promotion of a national land plan

In order to urgently materialize the plans and policies proposed in the National Spatial Strategies and decided by Cabinet Meeting, five expeditious surveys were carried out in FY 2009 on the coordination expenses of national land/landscape projects, such as infrastructure development regarding the rapid popularization of electric automobiles. Also, in response to unexpected situations during the implementation of public projects and changes in project conditions, 37 expeditious budget measures by this coordination expense, to actualize project results by early completion and reduce costs by project adjustments.

2) Promotion of regional independence and invigoration

Other than the efficient and effective implementation of the hard-soft cooperative measures towards the independent regional block development, in order to invigorate regions with the active interaction of people and supply circulation between a wide range of different areas, subsidies for regional independence/invigoration were granted to 75 regional projects until now, based on the Regional Invigoration Basic Plan worked out by prefectures.

3) Promotion of regional development according to the concept of “the new public sector”

Based on the concept of “the new public sector” of positioning various parties (such as residents, regional groups, NPOs and corporations) as regional development supporters, the various parties of government and private sectors cooperate to conduct “community creation support model projects on the new public sector” that is the implementation of the model for activities for creating communities by utilizing existing traditional and cultural regional resources. In FY 2009, there were 176 submissions throughout the country. 130 proposals that suited regional conditions were selected; “future focused village development of village function reform”, “management and succession of a beautiful and secure nation”, “environmental development of double-regional residence and settlement” and activities are being undertaken in each area of the country.

(2) Promotion of regional stronghold formation

1) Stronghold development for independent development of diversified regional blocks

Based on the “Multi-polar and Diversified National Spatial Promotion Act”, promotional stronghold region development is being pushed forward in spots that gather special industries and cultures in the region. Also, in business-oriented cities¹ positioned in the Development Plan on National Capital Regions, the intensive development of business facilities locations and various functions is producing certain effects in terms of corrections to over-concentration in the urban areas of Tokyo and development is being pushed forward continuously. Moreover, based on the “Tsukuba Institute of Science and Technology Urban Construction Act”, aiming at urban invigoration by utilizing science and technology collections, the construction of the Tsukuba Institute of Science and Technology City is being promoted. Additionally, urban development is in progress along the Tsukuba Express and environmental urban development, based on the characteristics of the Tsukuba Institute of Science and Technology City, is being worked on. At the same time, based on the “Kansai Cultural and Academic Research Urban Construction Promotion Act”, Kansai Cultural and Academic Research Urban Construction is being promoted with the purpose of forming a stronghold with new cultural/academic/research evolution in the Kinki Region; and based on the “basic policies on Kansai Cultural and Academic Research Urban Construction” based on the “Third Stage Plan”, related ministries and government offices, autonomous regions and business communities are cooperating and planning further promotion of urban construction. Besides, in order to be a region with functions and living conditions that meet the standards for international cities, the implementation of development plans is being pushed forward based on the “Osaka Bay Coastal Area Development Act”.

2) Review on the Transfer of the Diet

Based on the Act on the Transfer of the Diet and Other Central Government Offices, the necessary cooperation for the review in the Diet is being performed, including the survey related to the relocation of the Diet and the information distributed towards citizens.

5. Promotion of Coordination and Exchanges among Regions

(1) Road development for unifying merged municipalities and exchange among regions

For the promotion of unifying merged municipalities, the development of roads or bridges connecting central districts and the public facilities of merged municipalities is being pushed forward with the cooperation of the Ministry of Internal Affairs and Communications. Also, for regions where exchange is inactive due to geographic limitation, exchanges among regions is being promoted and road development that contributes to regional invigoration is being pushed forward.

(2) Promotion of exchanges among cities and farming/mountain/fishing villages

The village invigoration promotion project for supporting the repair of existing public facilities, such as abandoned school buildings, and their development into exchange facilities in geographically unfavorable regions; the formation of wide-ranged exchange/cooperation axes by developing highway networks, the housing/land supply for realizing rural habitation, and the development of water-friendly/exchange spots in harbors and wooded areas are being implemented. Moreover, the promotion of exchanges between cities and farming/mountain/fishing villages is being pushed forward through supporting the activity named “All right! Nippon Conference” with the cooperation of related ministries and government offices.

¹ Regions of Tokyo Metropolis, apart from the wards, which are cities that can be the center of extensively wide-area communities in and around regions (14 spots)

(3) Promotion of local settlements

The smooth promotion of UJI-turns and regional invigoration is being worked out by dispatching the students of the three prefectures around Tokyo to 7 municipalities in the country to participate in regional development activities or experience the farming/manufacturing industries. At the same time, the “Local Experience Exchange Support Project for the Young” (regional development internship project) is utilized to carry out interactive exchanges with local residents. Also, in order to promote the attraction to people of the movement from diversified population viewpoints, including the double-region living population, exchange population and information exchange population, a trial website of double-region habitation has been established and information is provided. Moreover, to cope with various local residential policy issues, the vacant houses and building utilization support of local public organizations through the local housing subsidy, information on the measures on local public organizations regarding relocation/double-region habitation, and vacant housing information via Internet are provided. Furthermore, as for time-share type residences, support was provided to leading project scheme planning towards the development of conditions where consumers could obtain the rights with ease.








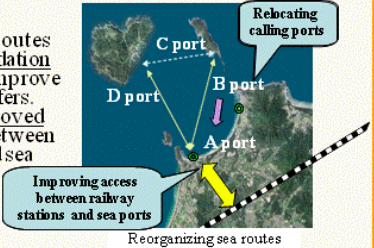
6. Securing Means of Regional Transport

(1) Invigoration of public transport for supporting regional life

Local public transport is the foundation of socio-economic activity. In addition, in order to take appropriate actions for various important issues such as ensuring residents’ movement methods; invigorating the region and dealing with environmental problems, such invigoration and revitalization are critical issues. Under such conditions, the “Act on Revitalization and Rehabilitation of Local Public Transportation Systems” is utilized and independent measures with regional ingenuity are being supported actively through the expansion of comprehensive support called “Comprehensive Projects on Invigoration and Revitalization of Local Public Transport” towards the committee that works on diversified projects concerning railways, community buses, minibuses, and ferries. In FY 2009, 114 research projects (research on formulating cooperative plans¹) and 259 planning projects (implementation projects positioned as cooperative plans), 373 projects were authorized in total.

Examples of comprehensive projects for the revitalization and rehabilitation of local public transportation systems

Because there are various and different needs and issues concerning the revitalization and rehabilitation of local public transportation systems, comprehensive and one-stop supports for varied operations are provided for effective promotion.

<p>Efficient bus operations</p> <p>Unifying the route bus, the welfare bus and the hospital shuttle bus, etc. for everyone to be able to use, so that the service will be improved and the operation cost reduced.</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>Route bus</p> <p>Welfare bus</p> <p>Shuttle bus</p> </div> <div style="text-align: center;"> <p>【 Unification 】</p>  </div> </div>	<p>Introduction of demand transportation service</p> <p>In areas where an ordinary fixed time/route bus operation such as the route bus service does not fit in, a system is introduced which operates only when users request it and changes its operation routes and times to meet their needs.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>【 Demand bus 】</p> </div> <div style="text-align: center;">  <p>【 Demand service center 】</p> </div> </div>
<p>Joint bus operation between multiple municipalities</p> <p>Multiple municipalities cooperate to jointly operate bus services for residents to visit places necessary for their lives such as hospitals and schools, etc.</p> <div style="text-align: center;">  </div>	<p>Cooperation of passenger boat, railway and bus access</p> <p>Reorganizing sea routes through the consolidation of calling ports to improve transportation transfers. Access will be improved with bus services between railway stations and sea ports</p> <div style="text-align: center;">  <p>Reorganizing sea routes</p> </div>

¹ The plan for comprehensively promoting the invigoration and revitalization of regional public transport (Regional Public Transport Comprehensive Cooperation Plan) based on the “Act on Revitalization and Rehabilitation of Local Public Transportation Systems”

20

(2) Invigoration of regional railways

Regional railways¹, as the “legs” of local people, are playing an important role for regional economic development. However, this is an extremely arduous business. Therefore, support is being provided for safety enhancement performed by the regional railway corporation and facility development contributing to transportation continuity through the transportation innovation subsidy and exceptional measures in the tax scheme. There were also plans to expand the scheme, such as increasing the subsidy rate to 1/3 uniformly, from FY 2009.

(3) Subsidy for local bus routes

It is an important issue to maintain and secure shuttle bus routes that are an indispensable form of transport for senior citizens and schoolchildren, who have mobility limitation and possess no special transportation method of their own. Therefore, according to the role shared between the nation and regions, the nation is providing a subsidy for maintenance measure costs focusing on transport routes for everyday life². For other routes, regional public organizations decide the maintenance plan and take the necessary financial measures.

(4) Transport support for remote islands

For remote island airways, in order to secure remote island air transportation, measures are being implemented for aircraft purchase subsidies, navigation charge subsidies, MSAS receiver purchase subsidies (MTSAT Satellite-based Augmentation System), and landing charge, airplane fuel tax and fixed asset tax relief.

In order to maintain and enhance remote island airways, the deficit subsidy is provided based on the “Remote Island Airway Development Act”. At the same time, for controlling the increasing deficit and continuing the airway business, the “Remote Island Airway Structural Reform Subsidy” was established in FY 2009. This subsidy is provided to remote island airway corporations, which carry out forward-looking reform, through the constitution of the Airway Enhancement Council, by related parties, and support for ship construction by public-established-private-managed organizations. Furthermore, fixed asset tax relief measures, improvement projects on remote island airway efficiency, the convenience improvement invalidation project and harbor development for service rate improvement on remote islands are being carried out. In 2008, there were 63 routes of remote island airways. As of the end of FY 2008, the number had risen to 304 routes (Among these, 121 routes are subsidized by the nation).

Section 3 – Promoting Urban Revitalization Projects

1. Promoting Urban Revitalization Projects

An urban revitalization project is a specific action plan that is worked out through the best collaborative efforts of related ministries and government offices, regional public organizations and related parties of the private sector, regarding various “urban issues” for which solutions need to be planned. The selection principles are 1) necessary measures for the basic issues related to urban structures and new methods that are different from those in the past, which related ministries and government offices, and regional public organizations must work out as well as possible; and 2) measures that can bring out the strengths of the private sector from the perspective of linking to economic structure reforms and that can contribute to land mobilization.

First approval (June 14, 2001) Developing and improving fundamental, wide-area disaster prevention bases at waterfront areas along Tokyo Bay	Fifth approval (January 31, 2003) Forming urban hubs through strategic use of nationally-owned land
Restructuring existing metropolitan areas into zero-garbage cities	Sixth approval (November 28, 2003) Regenerating Lake Biwa and areas around Yodo River
Improving and developing central bureaucracy facilities through PFI	Seventh approval (April 13, 2004) Forming a hub of lifestyle-supporting robot industries in the Osaka area
Second approval (August 28, 2001) Enhancing international exchange and physical distribution in metropolitan areas	Eighth approval (December 10, 2004) Developing countermeasures to global warming and the heat island phenomenon through urban redevelopment
Improving and developing beltway systems in metropolitan areas	Ninth approval (June 28, 2005) Reconstructing safety and reassurance of local communities through collaboration between crime prevention measures and efforts to create a community
Forming an international center of exchange on life science in the Osaka area	Tenth approval (December 6, 2005) Promoting urban redevelopment through collaboration and cooperation between universities and community based efforts
Ensuring a “New Zero-Waiting List for Nursery Schools” in urban areas	Eleventh approval (July 4, 2006) Facilitating urban redevelopment through transfer and relocation of housing of national government workers
Further developing and enhancing PFI methods	Twelfth approval (January 16, 2007) Urgently developing and improving crowded city areas
Third approval (December 4, 2001) Urgently improving crowded city blocks	Further strengthening the efforts to dissolve targeted crowded city areas
Using existing stocks in urban areas	Thirteenth approval (June 19, 2007) Facilitating urban redevelopment for enhancing international financial capital functions
Restoring urban environment in infrastructures in metropolitan areas	
Fourth approval (July 2, 2002) Forming an international hub of genome science in the Tokyo area	
Forming a hub of Asian industrial exchange in the Notham Kyushu area	
Creating advanced and unique cities in major urban areas	

¹ It includes four railways that are “small-medium size private railways”, “converted railways” (railways that are succeeded by the 3rd sector from the local lines of the old Japan National Railway), “new lines of regional railways” (railways that resumed construction that had been suspended during the time of the Japan National Railway, the management of which was passed to the 3rd sector after the business started), “parallel conventional railroad lines” (conventional railroad lines that were separated from the Japan Railways due to the opening of the Shinkansen business and run parallel with Shinkansen lines).

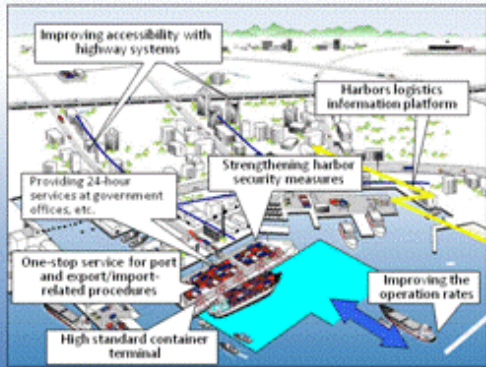
² Main regional bus routes applicable to national prescribed criteria (crossing more than one municipality, the distance from the starting point to the end is over 10 km, the service frequency is over three times per day) and are approved by the regional council as being necessary to maintain and secure.

1. Developing international cities with international competitiveness

Reinforcing international exchange and logistics in metropolitan areas

As it is important to enhance international competitiveness through reinforcing international exchange and logistics regarding revitalizing cities, improving accessibility and enhancing functions in base airports and harbors are urgent issues. In response to the 2nd approval of the project, therefore, additional functions at the international base airports (Narita International Airport, Kansai International Airport and Chubu International Airport) have been implemented, Tokyo International Airport (Haneda) was re-expanded and the accessibility to the airports improved. Moreover, hub spots have been deployed such as high-level international standard terminals regarding international harbors in metropolitan areas. At the same time, super central harbor projects have been promoted to provide 24-hour services at major container terminals and to standardize/simplify harbor procedures, etc. aiming to exceed the cost/service standard of major harbors in Asia.

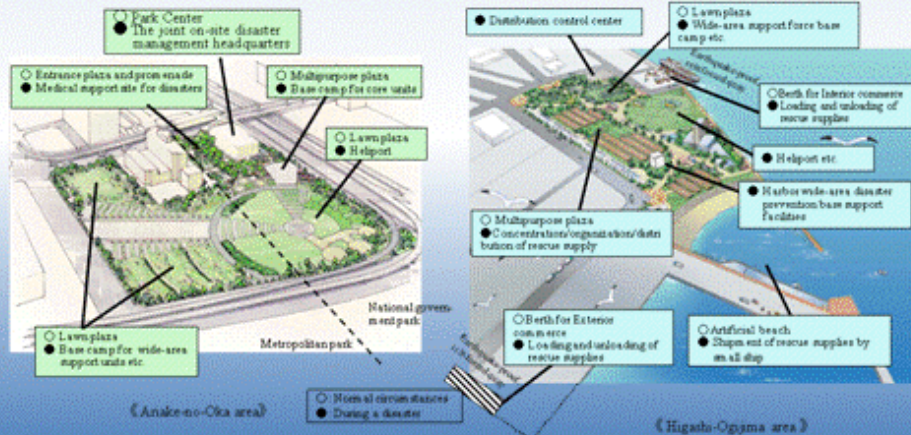
Enhancing functions of international harbors



2. Developing secure and beautiful cities

Reorganizing the wide-area disaster management base in the Tokyo Bay coastal area

The wide-area disaster management base has been developed in cooperation with relevant government organizations to function as the core of wide-area disaster prevention activities when a large-scale disaster occurs such as earthquakes in the Tokyo metropolitan area. The operational system coordinated with the Cabinet Office has been reinforced for the Tokyo Bay coastal area. The Higashi-Ogishima area has been placed in service in 2008 and the Ariake-no-Oka area has been developed to be in full service in the summer in fiscal year 2010. In Keihanshin metropolitan area, the development has been advanced in the Sakaisenboku-ko Sakai 2nd ward based on the agreement reached at the Keihanshin Metropolitan Disaster Prevention Committee since fiscal year 2008.



2. Developing secure and beautiful cities

Re-establishing safe and secure cities through cooperation between crime-prevention and community development activities (Hatsuko/Hinode-machi district in Yokohama City)

In the Hatsuko/Hinode-machi district, the number of small-scale illegal shops such as prostitution providers increased to about 250 shops (in 2004), resulting in the deterioration of the environment, causing clean businesses and residents to move out, which became a serious problem and led to a crackdown by the police in 2005.

The Hatsuko/Hinode-machi Environment Cleansing Promotion Committee mainly organized with local residents and elementary PTA members has been coordinating with the police and local government to reform the town to be safe and sound without illegal businesses. Yokohama City supports these community development activities by renting those shops for promoting the restoration of the town with culture/art. Local residents organize events and workshops to communicate the revitalization activities inside and outside the community. Furthermore, the Committee guidelines have been defined for the committee and the local government organizations to discuss new construction plans inside the district for the purpose of the development of a healthy and lively town.

The Committee won the "Prime Minister Award for Contributors involved in Safe and Secure Community Development" for their activities in 2009.

“Sign board removal campaign after crackdown”



“Renovation into a cultural/art shop”



3. Developing a clean urban environment

Restoring urban environment infrastructures in large metropolitan areas

In response to the urban revitalization project, "Restoring urban environment infrastructures in large metropolitan areas" (the 3rd approval) and an item under this project, "Preserving natural environments as a whole", the natural environments in the Metropolitan and Kinki areas have been reexamined to extract valuable harmonious nature sites remaining there as "Natural environments to be preserved." (Metropolitan Area: 2002, Kinki Area: 2005)

In order to preserve "Natural environments to be preserved" and to establish a network of water and greenery surrounding these environments, the "Grand Design for Urban Environment Infrastructures" has been formulated (Metropolitan Area: 2004, Kinki Area: 2006) to promote the preservation, revitalization and creation of natural environments that serve as urban environment infrastructure.

Greenery serving as the Urban environment infrastructure (Koajiro, the Miura Peninsula)



Restoring the Lake Biwa/Yodo River basin area

In order to pass down the Lake Biwa/Yodo River basin area to the next generation in a healthy state, relevant organizations in the basin area work together based on the principal concept "Water ties people/nature/culture" to realize "the revitalization of the basin/metropolitan areas that take advantage of their history/culture and co-exist with nature." In concrete terms, waterside promenades for pedestrians at the waterside/waterfront and coves/pools to preserve/revitalize the habitat environment of natural life living near water shall be developed.

The quality of the water and bed shall also be improved to revitalize the ecosystem in Lake Biwa.

The Yodo River (Osaka City)



2. Encouraging the Private Sector to Carry out Urban Development

(1) Urban development carried out by the private sector in the urgent development regions of urban revitalization

Based on the "Act on Special Measures concerning Urban Reconstruction", up to the end of March 2010, 65 districts were designated as "urgent development regions of urban revitalization" that require planning on urgent development as an urban revitalization base, in ordinance-designated or prefectural capital cities including Tokyo and Osaka. Currently, various private sector urban development projects are continuing in every region.

(2) Application status of supporting measures towards the urban revitalization project

1) Urban planning decisions of urban revitalization special districts


An “urban revitalization special district” prescribes highly independent new urban plans, excluding regulations based on existing land usage. As of the end of March 2010, the urban planning decisions of 49 districts were made, in which proposals for 33 districts were made from private sector corporations.

2) Approval of project plans on urban revitalization carried out by the private sector

For those project plans on urban revitalization carried out by the private sector approved by the Minister of MLIT (31 plans as of the end of January 2010), financial support from the private sector urban development promotion organizations and exceptional measures can be received.

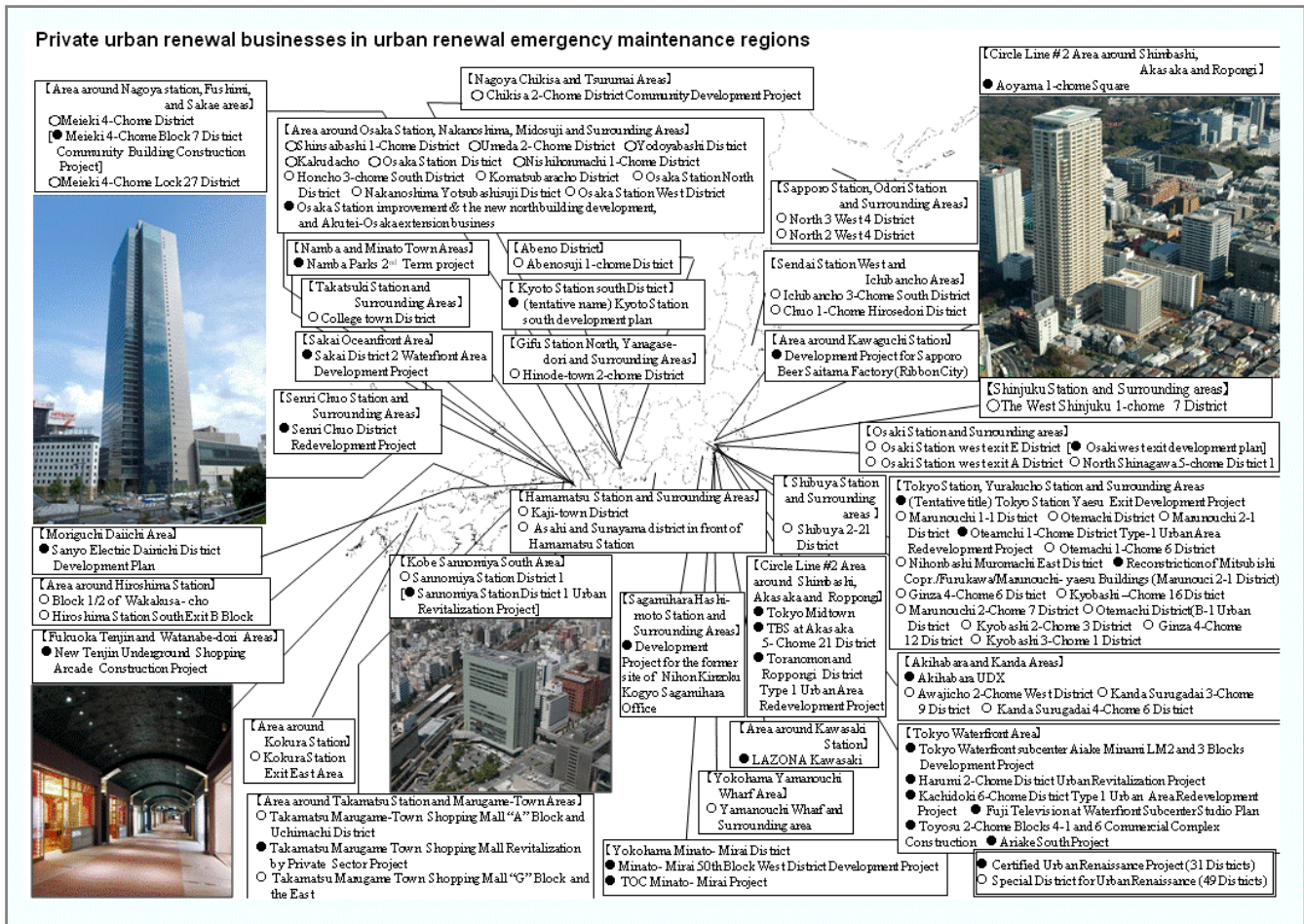
Example case of the coastal area in Tokyo

Example Case of the Private Sector City Development Project approved by the Minister of MLIT
The Ariake South Project commenced



(Tokyo Coastal Area)
This area aims at the establishment of a leading hub furnished with a wide variety of charms of work/housing/schooling/leisure that will serve as an international information originator.
The Ariake project works towards establishing facilities to function as the center of international conventions and businesses and to serve as a landmark of the Ariake area, an international interchange point, in harmony with the lively townscape.
Furthermore, this area neighbors international facilities such as international exhibition halls, which is expected to give synergistic effects for the project to contribute to the city through the revitalization of the Tokyo coastal area including Ariake and the establishment of a leading hub that originates information, in sync with neighboring facilities.
(Commenced in March 2009)

Private urban renewal businesses in urban renewal emergency maintenance regions



The map shows various urban renewal projects across Japan, including:

- Nagoya:** Nagoya Chukisai and Tsunami Area (Chukisai 2-Chome District Community Development Project); Area around Nagoya station, Fushimi, and Sakae areas (Meieki 4-Chome District, Meieki 4-Chome Block 7 District Community Building Construction Project, Meieki 4-Chome Lock 27 District).
- Osaka:** Area around Osaka Station, Nakanojima, Midouji and Surrounding Areas (Chinubashi 1-Chome District, Umeda 2-Chome District, Oyodoyabashi District, Kakudacho, Osaka Station District, Nishihonmachi 1-Chome District, Honcho 3-chome South District, Komatsubaracho District, Osaka Station North District, Nakanojima Yotsubashi District, Osaka Station West District, Osaka Station improvement & the new north building development, and Akutei-Osaka extension business); Abeno District (Abenosuji 1-chome District); Sakai District 2 Waterside Area Development Project; Sakai Oceanfront Area; Senni Chuo Station and Surrounding Areas (Senni Chuo District Redevelopment Project); Moriguchi Daiichi Area (Sanyo Electric Daiichi District Development Plan); Area around Hiroshima Station (Block 1/2 of Wakasusa-cho, Hiroshima Station South Exit B Block); Fukuoka Tenjin and Watanabe-dori Area (New Tenjin Underground Shopping Arcade Construction Project); Area around Kokura Station (Kokura Station Exit East Area); Area around Takamatsu Station and Marugame-Town Areas (Takamatsu Marugame-Town Shopping Mall "A" Block and Uchimachi District, Takamatsu Marugame Town Shopping Mall Revitalization by Private Sector Project, Takamatsu Marugame Town Shopping Mall "G" Block and the East).
- Kobe:** Sannomiya South Area (Sannomiya Station District 1 Urban Revitalization Project).
- Hamamatsu:** Hamamatsu Station and Surrounding Areas (Kaji-town District, Asahi and Sunayama district in front of Hamamatsu Station).
- Shibuya:** Shibuya Station and Surrounding areas (Shibuya 2-21 District).
- Circle Line #2 Area:** Area around Shimbashi, Akasaka and Roppongi (Aoyama 1-chome Square).
- Sendai:** Sendai Station West and Ichibancho Area (Ichibancho 3-Chome South District, Chuo 1-Chome Hiroseodon District).
- Sapporo:** Sapporo Station, Odori Station and Surrounding Areas (North 3 West 4 District, North 2 West 4 District); Area around Kawaguchi Station (Development Project for Sapporo Beer Saitama Factory (Ribbon City)).
- Osaka:** Osaka Station and Surrounding areas (Osaka Station west exit E District, Osaka west exit development plan, Osaka Station west exit A District, North Shinjogawa 5-chome District 1).
- Tokyo:** Tokyo Station, Yurakucho Station and Surrounding Areas (Tokyo Station Yaesu Exit Development Project, Marunouchi 1-1 District, Otemachi District, Marunouchi 2-1 District, Otemachi 1-Chome District Type-1 Urban Area Redevelopment Project, Otemachi 1-Chome 6 District, Nihombashi Muromachi East District, Reconstruction of Mitsubishi Copr./Furukawa/Marunouchi-yaesu Buildings (Marunouchi 2-1 District), Ginza 4-Chome 6 District, Kyobashi-Chome 16 District, Marunouchi 2-Chome 7 District, Otemachi District B-1 Urban District, Kyobashi 2-Chome 3 District, Ginza 4-Chome 12 District, Kyobashi 3-Chome 1 District); Akihabara and Kanda Areas (Akihabara UDX, Awajicho 2-Chome West District, Kanda Surugadai 3-Chome 9 District, Kanda Surugadai 4-Chome 6 District); Tokyo Waterfront Area (Tokyo Waterfront subcenter Aikae Minarai LM2 and 3 Blocks Development Project, Harumi 2-Chome District Urban Revitalization Project, Kachidoki 6-Chome District Type 1 Urban Area Redevelopment Project, Fuji Television at Waterfront Subcenter Studio Plan, Toyosu 2-Chome Blocks 4-1 and 6 Commercial Complex Construction, Ariake South Project).
- Yokohama:** Yokohama Yamatechuchi Wharf Area (LAZONA Kawasaki); Yokohama Minato-Mirai District (Minato-Mirai 50th Block West District Development Project, TOC Minato-Mirai Project).

Section 4 – Pushing Forward the Special District Promotional Measures

1. Measures for heavy snowfall areas

According to the “Act on Special Measures concerning Countermeasures for Heavy Snowfall Areas”, heavy snowfall areas and especially heavy snowfall areas are specified. Based on the Basic Plan on the measures for heavy snowfall areas, traffic assurance and the development of facilities related to living environment and national land conservation are being pushed forward. Furthermore, a special project on measures for heavy snowfall areas that utilize the characteristics of a snowy country and investigations for developing a safe and secure region are being carried out. As of April 2009, 542 municipalities had been identified as heavy snowfall areas (202 of which are especially heavy snowfall areas).

2. Remote Islands Promotion

In order to support the remote islands promotion project according to the remote islands promotion plan formulated by prefectures based on the “Remote Islands Development Act”, adding the “Remote Island Experiencing Visit Exchange Promotion Project” to the public affairs budget, for expanding exchange population and the investigation of talent cultivation for islands development, is being carried out. In addition, in the “Basic Plan on Ocean Policy” prescribed in the “Basic Act on Ocean Policy”, remote island conservation is prescribed as one of the measures that should be implemented by the government comprehensively and deliberately.

3. Promotional Development of Amami Islands and Ogasawara Islands

Through the implementation of promotional development projects based on the “Act on Special Measures for the Amami Islands Promotion and Development” and “Act on Special Measures for the Ogasawara Islands Development”, fundamental conditions are being enhanced. At the same time, support is provided for the voluntary efforts of regions that utilize their characteristics and environmental development for regional independent development by industries and tourism promotion is being pushed forward.

4. Peninsula Promotion

Through the Peninsula Promotion Plan drawn up by prefectures based on the “Peninsula Promotion Act”, support towards circular road development and industrial promotion are provided to Peninsula Promotion Measure Implementing Regions (as of April 2009, 23 regions were designated – 22 prefectures and 196 municipalities).

Additionally, through the process of spontaneous measures taken by individuals, citizens groups and NPOs, combined with the basic investigation for collecting and analyzing the necessary information for implementation of the Peninsula Promotion Act, the necessary information for social enterprises to create areas for sustainable living and employment is collected and analyzed, and is reflected in each type of measure.

Section 5 – Promoting the Comprehensive Development Plan of Hokkaido

1. Promoting ‘Leading the Era of the Global Environment, The New Hokkaido Comprehensive Development Plan’

(1) Promoting the new comprehensive development plan of Hokkaido

Our country has been utilizing Hokkaido’s excellent resources/specialties to contribute to solving occasional national issues. At the same time, the active development of Hokkaido has been carried out for its own vital regional development.

At present, based on the 7th “Leading the Era of the Global Environment, The New Hokkaido Comprehensive Development Plan”, different kinds of measures/projects/promotions are being initiated by collaborating and cooperating with various entities and by taking the leading experimental activities in order to realize three strategic goals, which are “Realization of an Open and Competitive Hokkaido”, “Realization of a Sustainable and Beautiful Hokkaido” and “Realization of a Hokkaido with Diverse and Distinct Regions”.

(2) Measures for plan realization

1) Strengthening the food supply

Hokkaido has 25% of the agricultural land in our country and supplies about 20% of domestic food production (calorie-based). Stable supply of safer food is an important issue for our country; therefore, for Hokkaido to continuously bear the role of a food base for our country, the production infrastructure that supports the expansion of agriculture of highly productive land usage is being developed.

2) Tourism promotion aiming to develop attractive sightseeing spots with international competitiveness

Hokkaido has unique and attractive tourism resources even in Asia. As a sightseeing spot, its popularity is high not only domestically but also overseas, especially in East Asia. Hokkaido is gaining a good reputation because the tourists who have visited Hokkaido are willing to recommend it for travel to their friends and acquaintances.

Therefore, regional action groups are cooperating with the government to develop internationally renowned sightseeing spots that are full of individuality, through the utilization of regional resources and characteristics such as a program called “Scenic Byway Hokkaido” intended to develop “Beautiful Scenery”, “Vital Community” and “Attractive Sightseeing Spaces”.

Moreover, based on the “Promotion of Holding International Conferences in Hokkaido”, the communication meeting of ministries and government offices has been established and support is being provided to the promotion of holding international conferences, etc. (MICE) in Hokkaido and regional measures.

3) Promotion of the “Hokkaido Environmental Initiative”

In order to further promote the “Development of Beautiful Hokkaido that is Open to the World” and the “Innovation of the Life in the North”, the leading measures of our country’s environment policy named “Hokkaido Environment Initiative” are unfolded by cooperating through cooperation with various entities.

In FY 2009, the environmentally-friendly resources circulating farming and nature revitalization projects on rivers and marshes were promoted. Going forward, these measures will be promoted continuously. At the same time, measures with consideration for the environment that are focused on aspects of regional development and sightseeing spot development will be

promoted.

4) Approaches towards the utilization of new biomass resources that suits Hokkaido

In the context of the high necessity of biomass resources that do not affect the food supply, it is becoming important to carry out efficient production of resource crops,¹ utilizing abandoned farmlands. Therefore, from FY 2008, in order to utilize the large-quantity of willows growing in Hokkaido as a new biomass resource, an investigation on efficient cultivation technologies and energy extraction (bio-ethanol) was carried out. In FY 2009, the most efficient method of ethanol extraction in an indoor-scale experiment facility was reviewed.

5) Promotion of social infrastructure development aimed at the achievement of strategic goals

For achieving the three strategic goals, social infrastructure development is being promoted effectively by cooperating with various entities. This includes core traffic network development (including high-standard highways), secure winter traffic and the development of national conservation facilities for frequent natural disasters.

2. Promotion of Regions and Cultures with Specialties

(1) Promotion of the adjacent regions of northern territories

In view of the special situation of the adjacent regions of northern territories, regional promotion measures are being implemented comprehensively based on the “Act on Special Measures concerning Advancement of Resolution of Northern Territories Issues, etc.”

In FY 2009, this act was amended with the requirement of relaxation regarding special support towards projects related to regional promotion and support expansion.

(2) Promotion of Ainu culture

In response to the “resolution on the request to certify the Ainu as indigenous people” made by the House of Representatives and Councilors, the “Expert Meeting about the way of Ainu policy” held by the Cabinet Secretariat compiled a report in July 2009. Under these policies for the comprehensive promotion of the measures for the Ainu, in order to enforce the promotion of Ainu cultures and the dissemination and enlightenment of knowledge about Ainu tradition, the measures towards the revitalization of Ainu traditional living spaces (ioru) in the Shiraoi region and Biratori region and the preparation and distribution of supplementary readers for primary and secondary students as well as seminars were implemented.



¹ Plants grown mainly for energy sources or manufacturing raw materials but not for food supply, for example crops such as corn, rapeseed and trees such as willows, etc.

Chapter 4: Forming the comfortable living place

Section 1 – Realizing Prosperous Housing

1. Promotion of Basic Plan (National Plan) on Housing

Accompanying the arrival of the aging of society with a low birth rate and changes in the social situation, in order to realize the prosperous lifestyles of citizens for now as well as the future, based on the “Basic Plan (National Plan) on Housing”, measures on ensuring living security and improvement promotion are being pushed forward for achieving the following four targets. The four targets are 1) to develop good-quality residential stock and pass it down to future generations, 2) to develop good living environments, 3) to develop the conditions of the housing market enabling it to suit diversified housing needs, 4) to secure stable supply of housing for those who require special consideration on housing assurance. In FY 2009, the related ministries and government offices held the meeting of measures promotion improving housing stability. Also, the implementation progress of measures focused on the cooperative measures on the aspects of housing, social welfare and crime prevention was summarized.

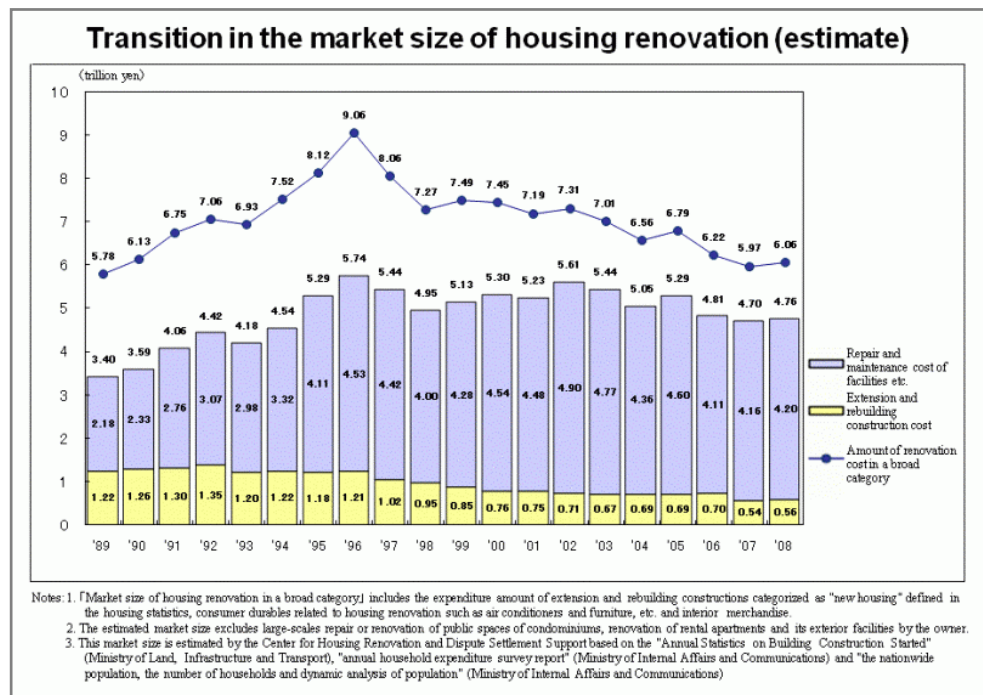
(1) Measures for extending housing lifetimes

In June 2009, the “Act on the Promotion of Popularization of Long-life Quality Housing” came into effect. This act aims to switch to a stock-focused society through promoting durable and maintenance-friendly housing, “Long-life Quality Housing (LLQH).” Based on this act, 57,127 units were certified as LLQH in FY 2009. Since FY2008, MLIT have subsidized projects in the private sector that contribute to the promotion of LLQH (113 projects in FY 2009).

(2) Development of good-quality residential stock and inheritance by future generations

1) Environmental development of housing renovation market

For the purpose of proper circumstances for house remodeling, a professional consultation system for the remodeling cost estimate and a lawyer consultation system for troubles were established. In addition, a telephone-consultation organization was strengthened by increasing staff. Moreover, defect warranty insurance for small-scale housing remodeling and large-scale apartment remodeling were approved and marketed in December 2009 and March 2010 respectively. At the same time, the list of constructors registered to the insurance corporation was released to the public for consumers’ reference when choosing construction corporations.



Moreover, in order to encourage renovation, the popularization of the Refonet for providing diversified information related to the renovation, and the maintenance and popularization of home maintenance records are being pushed forward.

In addition, the Housing Eco-Point Scheme, which issues points for enabling the swap of energy-saving and environmentally-friendly products through Eco-Renovation (insulation renovation of windows, outer walls, roofs, ceilings and floors) and newly built eco-houses, was established in January 2010 and the promotion of Eco-Renovation is being worked out.

Column – Establishment of the Housing Eco-point Scheme

The proportion of residential CO₂ emission caused by energy generation in Japan is 14% (1/7 of the total). For achieving the target of reducing 25% of greenhouse gas emissions in 2020 compared with that of 1990, it is necessary to enhance residential energy-saving functionality and reduce residential CO₂ emission to a great extent.

The establishment of the “Housing Eco-point Scheme” is incorporated into the “Urgent Economic Measures for future security and growth”. The “Housing Eco-point Scheme” is a system for acquiring eco-points when carrying out the new eco-house construction and the eco-renovation as well as for exchanging points for various products, services and environmental contributions.

For new constructions, target points are awarded for wooden houses that meet the energy-saving standard (the standard of 1999) and residential housing that meets Top Runner Standards for housing.

For renovations and replacement work, target points are awarded for heat-insulating repair of windows and outer walls (e.g. high heat-insulating glass like multi-layer glass) as well as renovations for becoming barrier-free (e.g. constructing handrails, resolving bumps, expanding corridors etc.) that are carried out.

Through implementing the “Housing Eco-point Scheme”, the new construction of eco-housing and eco-renovations and replacement work on existing housing is carried out. Also, residential energy-saving enhancement is being pushed forward and it is expected that the effect on residential CO₂ reduction will be boosted to a certain extent. Furthermore, citizens’ concern over measures on residential housing with high energy-saving functionality is rising. Great contributions to future CO₂ reduction and the vitalization of activities in the industrial sector are expected.

2) Developing appropriate apartment management and facilitating repair and reconstruction

The total quantity of apartment stock has reached 5.62 million units (as of the end of FY 2009) and it has become an important lifestyle for citizens. On the other hand, it is necessary to formulate measures to deal with various issues when performing the appropriate maintenance management and the increase of decrepit apartments.

In FY 2009, support was provided for revising ideal management methods in both soft and hard aspects of maintenance management and resurrection of apartments. At the same time, the “Project on Promoting Secure Housing such as Apartments” system is being implemented for propelling the development of regional consultation. Additionally, regarding apartment management, the results of the “Comprehensive Apartment Survey”, which is carried out every five years for gathering fundamental information, was released.

Furthermore, the promotion of utilizing subsidies, finance and taxation measures is being worked out in order to carry out the repair or reconstruction of decrepit apartments smoothly. As of 1st October 2009, 49 apartment reconstruction projects that utilized the “Act on Facilitation of Reconstruction of Condominiums” were carried out successfully.

Housing Eco-point Scheme

◆ Joint project by MLIT, METI and MOE

■ Housing Eco-point Scheme
In principle, new construction and renovations, and replacement work completed on or after Jan. 28, 2010

1. New construction of eco-housing (which began between Dec. 8, 2009 and Dec. 31, 2011)

- Housing with energy-efficiency levels equivalent to Top Runner Standards for housing, target levels set based on the Energy Conservation Act, (exterior walls, windows and building parts that conform with the 1999 energy-efficiency standards + α [highly-efficient MEP systems, such as hot-water supply systems])
- Wooden housing that conforms with the 1999 energy efficiency standards

2. Eco-renovations and replacement work on existing housing (which began between Jan. 1, 2010 and Dec. 31, 2011)

- Energy-efficient windows (double glazing by installing a second glass pane on the interior side [double sash], or replacement of glass [multiple glazing])
- Insulation in exterior walls, roofs, ceilings and floors

* Additional points are awarded when renovations for barrier-free features are carried out with these eco-renovations and replacement work


■ Number of points awarded

1. New construction of eco-housing: 300,000 points per unit
2. Eco-renovations and replacement work: 2,000 to 100,000 points depending on type of work (max. points: 300,000 per unit)


■ Goods and services exchangeable for eco-points

For instance

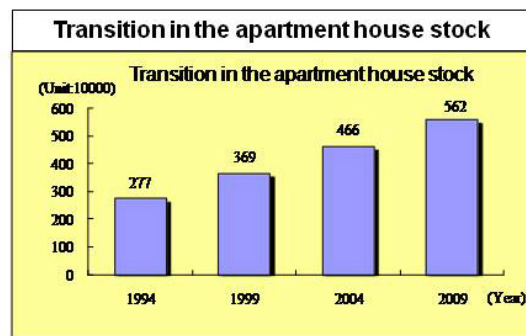
- Energy-efficient and eco-friendly products
- Locally sourced food
- Coupons and prepaid cards
- Donation to groups working in environmental conservation
- Additional work by contractors that have constructed new eco-housing or have carried out eco-renovations and replacement work



Double sash



Multiple glazing



Notes: 1. Quantity of apartment stock is estimated based on the sum total of houses for new supply
2. Apartment here means middle to high level (3 floors or higher) lotting or communal buildings, ferroconcrete, steel framed ferroconcrete or reinforced concrete or steel framed buildings.
Source: Ministry of Land, Infrastructure, Transport and Tourism

(3) Environmental development of a housing market that meets diversified housing needs

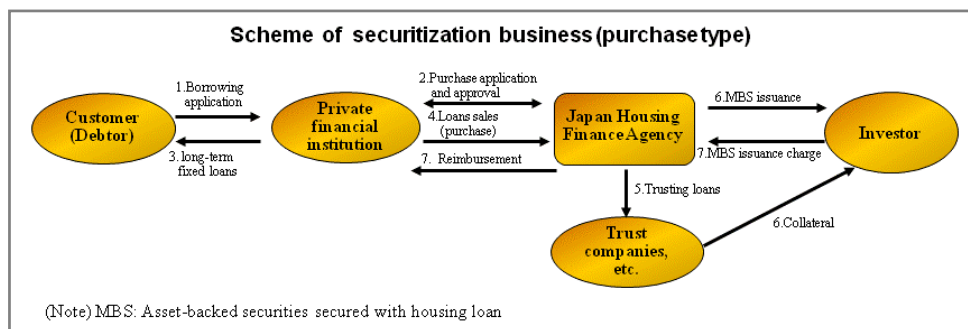
1) Promotion of ensuring housing quality

The Housing Quality Assurance Act provides (1) the mandatory 10-year defect guarantee liability for the fundamental structure and prevention of rain leakage, (2) Housing Performance Indication System which allows a private organization to evaluate and indicate the performance of newly-built housing and existing housing including quake resistance and energy efficiency. Performance Evaluation Reports for Housing Plans were issued for 200,097 housing units, and Performance Evaluation Reports after Completion of Construction were issued for 192,606 newly-built units and 308 existing units.

The Designated Housing Dispute resolution bodies mediate problems regarding contracts, construction of houses with Performance Evaluation Reports after Completion of Construction between the housing company and clients. The Center for Housing Renovation and Dispute Settlement Support (CHORD) provides a range of support to the Designated Housing Dispute Resolution Bodies. The CHORD also provides a consultation service for housing problems. In FY 2008, the number of applications of dispute resolution and telephone consultation was 33 and 12,956 respectively.

2) Residential finance (JHF)

In order to support private financial institutions providing a comparatively long-term, fixed and low interest rate residential loan, Japan Housing Finance Agency implements securitization business. The business is composed of Flat 35 (Purchase Type) and Flat 35 (Guarantee Type). Flat 35 (Purchase Type)



is a loan type that gathers and securitizes the residential mortgages of private financial institutions while Flat 35 (Guarantee Type) is a loan type that supports securitization practiced by the private financial institution itself. By the end of March 2010, the total number of applications of Flat 35 (Purchase Type) was 313,047, the total number of purchased loans was 219,216 and the total number of the participating financial institutions was 338. Furthermore, the number of guarantee applications was 17,621, the number of guaranteed loans was 10,988 and the total number of participating financial institutes was four. For residential houses purchased or guaranteed in securitization business, technology standards such as durability are prescribed, and residential house quality assurances are worked out through house examinations. At the same time, by utilizing the framework of securitization business, the support scheme for acquiring high-quality housing is being implemented. This scheme reduces the first 10-year (20-year for long-term good-quality residential buildings) interest rate for the houses that satisfy one of the four basic standards, which are earthquake resistance, energy-saving ability, barrier-free and durability/flexibility.

In addition, the implementation of the agency's direct loan origination business is limited to the politically important loans that are difficult to be provided by private financial institutions, such as loans for disaster, loans for reconstruction in areas densely congested with houses, and rental housing for households with small children and for the elderly. In June 2009, as part of "Economic Crisis Policy", measures such as raising the loan-to-value ratio limit for mortgages in securitization business (purchase type) were adopted. Moreover, in February 2010, as part of the "Urgent Economic Policy for Future Security and Growth", measures such as expansion of the interest rate reduction for the first 10 years (0.3% to 1.0%) in the support scheme for acquiring high-quality housing were adopted.

3) Enhancement of the housing taxation scheme

Under the current severe economic conditions, as a temporary measure aimed at economic recovery through promoting wide-ranged housing investment, the tax-exemption measure of gifts for dwelling house acquisition money from lineal ancestors was expanded. Adding to the income limit (the total income amount of donations received for the year is limited to below 20 million yen), the tax-exempt limit was increased by 15 million yen in FY 2010 and 10 million yen in FY 2011.

Altogether, in terms of exceptions to the taxation system for settlement at time of inheritance related to the donation of housing property, the exception of adding 10 million yen on the 25 million yen of special exemption has been abolished and the exception of donation from parents under 65 year-old has been extended by 2 years.

4) Environmental development of the existing housing market

In order to develop the business environment where high-quality existing housing units are traded, MLIT promotes the Housing Performance Indication System for existing housing, improves information provision on real estate transaction prices, and popularizes the housing valuation manual, which includes how to evaluate the quality of existing housing.

Moreover defect warranty insurance related to secondary housing dealing with consumers' needs is being developed. In December 2009, insurance was first provided to the market. In addition, the endorsement enabling the transfer of insurance for newly-built housing to the second owner after resale was provided to the market.

5) Development of the rental housing market

Regarding the rental housing market, in order to improve the quality of the stock of rental housing from one's own house such as apartments, environment development is being worked out, such as the popularization of the fixed-term rental scheme and the correction of sublease businesses¹.

6) Promotion of living downtown

Accompanying the continual problem of a low birthrate and the aging of society, the development of an area that facilitates senior citizens and parenting families to go downtown on foot is demanded. Additionally, while the hollowing of urban districts is continuing, it is necessary to resuscitate liveliness through the promotion of living downtown. Furthermore, it is also important to realize a comfortably affluent life, through an urban structure that shortens the distance between workplace and home and remake the district into an attractive place with multiple and diversified urban functionalities including the residential function. For realizing these goals, measures are being pushed forward for encouraging the housing supply in the central and urban districts as well as attracting people to live downtown, through permission of System for Integral Design (3,126 as of March 2008), High-rise residential attraction districts (2 districts as of the end of March 2008), District Development Plans that Adequately Allocate Residential and Non-Residential Uses (41 districts as of March 2008) and the common housing supply business of urban districts based on the "Act on Vitalization of City Centers".

7) Promotion of wooden housing

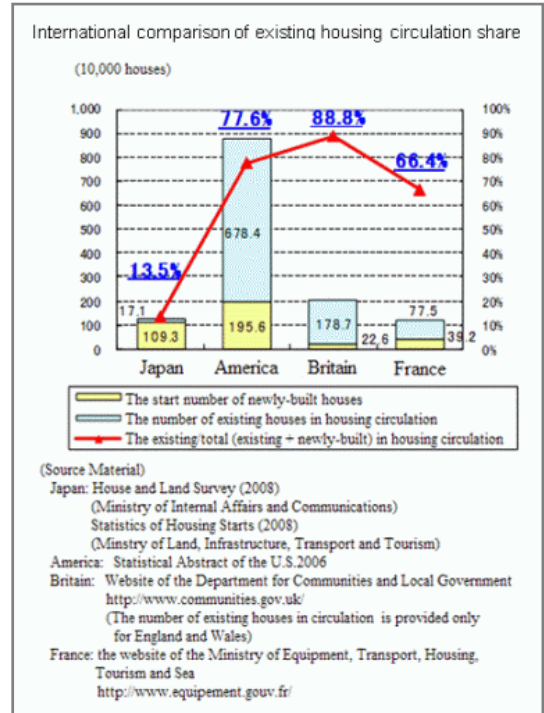
In order to strengthen the market competitiveness of wooden housing as well as to improve the skills of small-sized and medium housing constructors, who are the major players in wooden housing construction, MLIT encourages the development of technologies for construction of wooden housing, and a construction system in partnership between constructors and lumber suppliers.

(4) Ensuring living stability for people who require special care in housing assurance

1) Supply of public rental housing

In order to encourage the quality of rental housing supply for senior citizens, disabled persons and parenting families that need special care in terms of living stability in the regions, the regional quality rental-housing scheme is positioned as a complementary scheme to public housing. In addition, the subsidy on the development cost of public rental housing and rental fee reduction is being provided.

Moreover, in order to secure a housing safety net for unavoidable expulsion due to dismissal, various measures are being taken with cooperation of Hello Work in the country for housing stability assurance of dismissed people. Measures include the promotion of a one-stop service for providing unitarily the related information on public rental housing usable by dismissed people and related information on rental housing provided by urban revitalization organizations.



	Intent
Public housing	Supplying quality rental housing at a low rental cost to people in the lower-income brackets in need of housing
Improvement housing	Supplying public rental housing to previous residents of the deteriorated residential area, who are in need of housing due to the restoration of the area
Rental housing provided by urban revitalization organizations	Supplying quality rental housing located closely to the office districts in metropolitan areas together with the development of urban residential areas, mainly ones for families due to insufficient supplies by private providers. (The Private Supply Support-type Rental Housing System to support private providers to supply rental housing for families, etc. since FY 2002.)
Public corporation housing	Supplying rental housing to meet the housing demand of local communities
Regional quality rental housing	Supplying quality rental housing to elderly households and those with small children through subsidies for private land owners to maintain the building and reduce house rents.

Note: 1. The number of rental housing managed by the urban revitalization organizations includes quality rental housing for the elderly.
 2. The number of rental housing provided by public corporations excludes designated quality rental housing or quality rental housing for elderly people
 3. Designated quality rental housing and quality rental housing for elderly people were reorganized to newly establish "the Regional Quality Rental Housing System" in FY 2007.
 Source: Ministry of Land, Infrastructure, Transport and Tourism

¹ The business whereby a rental housing management company rents a building from the building owner for subleasing and then rents it to the sub-lessee as a sub-lessor.

2) Utilization of private rental housing

From the viewpoint of enhancing the safety net function of private rental housing, information on private rental housing that accepts rental requests from senior citizens, disabled persons, foreigners and parenting families is provided through secure rental supporting business. Through different forms of housing support, measures are being taken concerning structural support related to rental for facilitating carefree housing rental.

2. Supply and Utilization of Quality Residential Land

(1) Trends in land prices

According to the public notice of land prices in 2010, land prices dropped throughout Japan as they did in the previous year. The rate of decrease of land prices for the three largest metropolitan regions was bigger than that of the non-metropolitan regions and also the rate of decrease of commercial land prices was bigger than that of residential land prices. However, when looking at the movement for the three largest metropolitan regions on a half-year basis, the rate of decrease of the 2nd half was smaller compared with that of the 1st half.

Moreover, according to the “Trend Report of the Prices of Intensively Used Land in Major Cities” (Land Price LOOK Report), the trend of decreasing prices is continuing but the margin of decrease is declining. In the Tokyo area, there are districts that are changing to an increasing or flattening trend from the 1st to the 4th quarter.

(2) Current situation and issues of residential land supply

In order to deal with the problem of declining populations and families, policy has changed from the old policy of active support on abundant supply of new residential land to the new policy of supplying residential land equipped with good living environments being based on regional characteristics. The projects that have been undertaken for the new town business operated by the Urban Renaissance Agency are being carried out. Also, development contributing to the enhancement of living environments and downtown living is being implemented intensively for the residential urban district fundamental development project¹. Moreover, the supply of residential land with good living environments utilizing farmlands is being pushed forward through taxation measures and a combined system of farming and living².

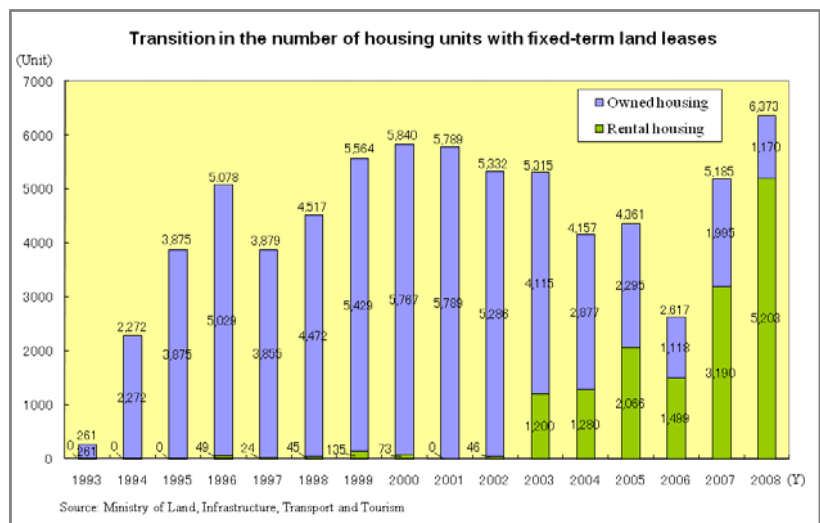
(3) Utilization of fixed-term land leases

The fixed-term land lease is a system that creates a land lease contract with a prescribed non-renewable contract period and contract end date. It is an effective system for realizing the acquisition of good and cheap housing with low burden. The number of housing units with fixed-term land leases was over 70,000 as of the end of 2008. The yearly supplied unit increased further from 2007 and was the highest since the fixed-term land lease system was established.

Additionally, in terms of the development of conditions for smooth popularization of the system, the tax treatment of the prepaid rental system, which is the 3rd one-off payment system after the deposit and key money, is defined.

(4) Creating new towns

For the planned development of residential urban districts (new towns), it is necessary to continuously utilize quality stock in order to deal with the issues of functionality renewal induced by decrepit housing or facilities and a decrease in families. In FY 2009, information on activity groups for area management of new towns was collected. At the same time, support is being provided to model activities.



¹ Road/river/urban park development projects related to residential land supply

² A system established by owners of farmland in urbanized districts for changing farmland to residential land smoothly while continuing the present farming business.

Section 2 – Realization of Comfortable Living Environments

1. Development of City Parks and Formation of Good Urban Environments

(1) Development progress of city parks and measures for functionality enhancement

City parks are the key facility for the diversified needs of citizens. Therefore, the development of national government parks and disaster prevention parks, the preservation of ancient cities and the conservation of green spaces are being implemented efficiently and systematically, focusing on 1) the development of secure and safe cities by constructing disaster prevention parks that act as disaster shelters, 2) the development of secure and safe community centers that deal with the declining birth rate and aging population, 3) the conservation and creation of good natural environments that contribute to measures against construction of a cycling society and global environmental problems, 4) the development of centers for tourism promotion that utilize regional specialties and communications/cooperation between regions.

As of the end of FY 2008, the current status of city park development took place 96,808 locations and 114,990 ha have been developed; the area of city park per person is around 9.6 m². Moreover, for national government parks, the yearly number of users in FY 2008 was around 33.28 million persons (1 person out of every 3.8 citizens). In FY 2009, development was pushed forward in 17 places and among these, 16 parks have been opened.

(2) Development of urban green environments

Aiming to realize urban green environments through appropriate measures against the earth's environmental problems of global warming and conservation of biological diversity as well as the conservation and creation of natural environments, urban greening and green conservation is being pushed forward based on the "Master Plan for Greenery", which is a basic plan for green conservation and promotion of urban greening stipulated by municipalities. Furthermore, the development of urban parks is being pushed forward through the Nature Restoration Green Space Development Project. At the same time, green conservation is being undertaken by utilizing Suburban Green Conservation Areas and Special Green Conservation Areas which carry out forest conservation through regulating construction activities. The Civic Green Space System was opened to citizens based on this agreement. Moreover, these measures are supported comprehensively by the Green Environment Development Comprehensive Support Project and formation of water-green networks is worked out by carrying out cooperation between road and river projects. Additionally, the greening of private land is being pushed forward through the utilization of the Greening Area System and the Authorized System of Greening Facilities Development Plan.

Moreover, at the same time as carrying out popularization and enlightenment activities like national "Green Protection" gathering, various measures have been initiated for pushing forward popularization and enlightenment, such as various commendations of people who perform greening and evaluation, and recognition of the efforts on greening and green conservation performed by enterprises themselves.

2. Promotion of Developing Pedestrian/Bicycle Priority Roads

1) Formation of secure and safe pedestrian priority walking spaces

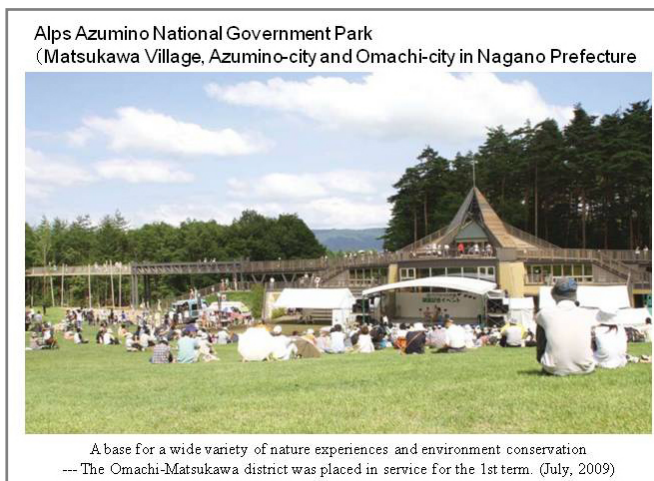
The development of pavements is being pushed forward especially in school zones. For regions that have difficulty developing pavements, such as urban districts, secure and safe pedestrian area creation is currently being carried out, including simple methods such as coloring the paving of hard shoulders and constructing pedestrian barriers.

2) Development of secure and safe environments for bicycles

Road administrators and the police are cooperating and working out how to create cycling spaces separated from pedestrians and automobiles. 98 spots of cycling environment model districts overall have been designated nationally. Road development for automobiles and the construction of cycling only zones are being pushed forward.

3) Formation of high-quality walking spaces

In order to support the development of attractive regions that enable healthy lifestyles through walking, the Walking Trail Project is being pushed forward for forming high-quality walking spaces with natural and historical scenery. Furthermore, roads used daily have been changed to give priority to pedestrians/cyclists from giving priority to automobiles from now on. In order to have safe and high-quality living spaces, the promotion of "Living Street Zones"¹ is being worked on.



¹ In residential areas that are surrounded by main expressways and central urban districts, the entry of general vehicles to the district is restricted and closed roads are prioritized for pedestrians and bicycles. In addition, a green environment, free of utility poles, is developed and traffic safety assurance and the enhancement of living environment quality are worked out. Totally 56 districts were registered as of the end of October 2008.

4) Promotion of easily comprehensible road information

For pedestrians who are not familiar with the roads in the district, the enhancement of information provision is being worked out through the introduction of an easily comprehensible way of providing road information to get to one's destination and the cooperation of different information provision methods.

5) Construction of a flexible road management system

In addition to further facilitating the flow of automobile traffic, in order to perform diversified functions of safe pedestrian areas and bustling areas for regional communication, as well as to enable flexible road management according to the needs of locals living along the road, various management exceptions are being implemented based on the revised Road Act. They include (A) the management exceptions of national roads and prefectural roads administered by municipalities (agent system), (B) a request system for pedestrian safety reconstruction performed by municipalities, (C) the exception of road spaces used for planting trees or street lamps built by NPOs, (D) the management exceptions of convenient facilities, except roads, for unitarily administering roads and roadside facilities.

Section 3 – Realization of Traffic with High Convenience

(1) Promotion of a comprehensive urban and regional transportation strategy

In order to realize intensive road development ensuring safe and smooth traffic, it is necessary to consider the format from the users' view rather than the view of bicycles, railways, buses nor business operators. Therefore, regional public organizations established a council formed by public transportation business operators and related parties for defining the target and the future vision for urban and regional areas and a transport service must be provided. In addition, the council formulated an "urban and regional comprehensive transportation strategy" that states the necessary transportation policies and implementation programs. Under the corresponding responsibilities, it is necessary to form policy and project implementation measures. Based on the same strategy, the country provides support for pushing forward comprehensive and strategic transportation measures in collaboration with transportation businesses and road development, such as LRT development.

(2) Promotion of TDM for resolving traffic congestion

Although the conditions of automobile traffic and the resolution of traffic congestion are different for different cities, TDM¹ is a method that is able to deal with each city's characteristics. Therefore, the popularization of comprehensive and effective TDM is being promoted.

In order to resolve congestions during rush hours in the day and at night, in addition to the expansion of traffic capacity, TDM measures are being implemented. The measures include the policy of promoting the usage of public transportation organizations such as the common IC card for buses and railways and the introduction of a bus location system, "no driving during peak times²", and flexible time commutation. Moreover, through distributing bus route maps and individual booklets to local people in regions, a review of automobile usage is encouraged and mobility management³ using public transportation effectively is implemented.

(3) Measures for the invigoration of public transportation

The current conditions of regional public transportation are increasingly severe. To deal with this, the "Act on Revitalization and Rehabilitation of Local Public Transportation Systems" is utilized and the unitary support of voluntary measures with regional ingenuity is being provided actively to the council that takes measures on different businesses, such as railways, community buses/shuttle taxis and passenger ships, through expansion of the "Comprehensive Project on the invigoration and revitalization of regional public transportation". Furthermore, the District Transport Bureau is leading the review of regional public organizations, transport business operators and local people, as well as pushing forward the formulation of the "Comprehensive Program of Public Transportation Invigoration" prescribing concrete measures and role sharing for implementing the measures.

¹ In order to resolve traffic congestion at the urban and regional level, this is a method of adjusting traffic demand (traffic behavior adjustment) by changing the usage times of road users, changing routes, changing transportation methods, using automobiles effectively, and regulating causes of congestion.

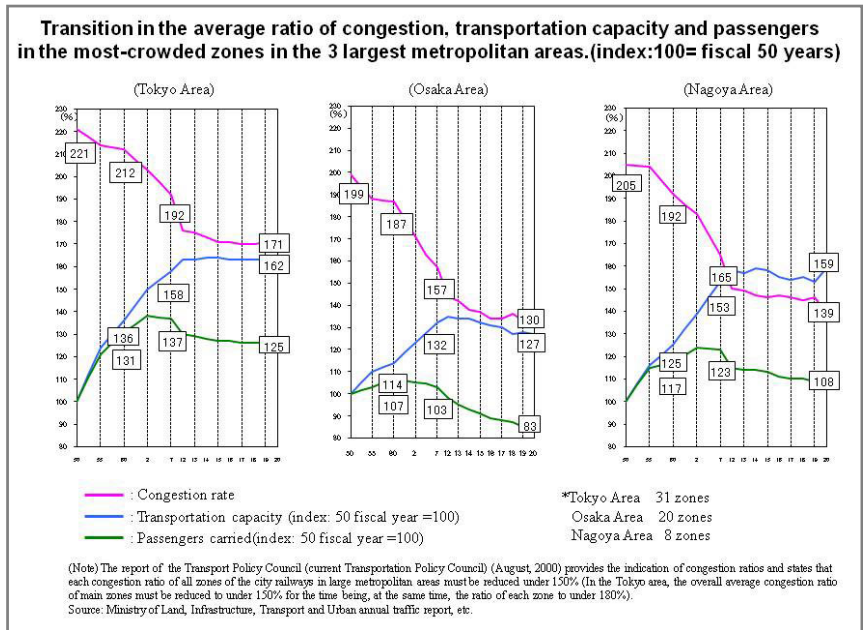
² In order to resolve traffic congestion, this is a system whereby individuals reach their destination by parking their cars in suburban car parks and changing to public transport such as railway, bus, etc.

³ The transportation policy focuses on communications for encouraging voluntary change of mobility to the expected direction of both individuals and society (from the over usage of automobiles to the appropriate use of public transport, bicycles, etc.).

(4) Enhancement of the urban railway network

The urban railway network has expanded to a considerable extent through development with an emphasis on strengthening transportability and resolving traffic congestion. Although the tendency for there to be overcrowding during commuting hours in major metropolitan areas has decreased due to a decrease in children and aging, the overcrowding rate is still high and is over 180% on some railway lines, and it is necessary to continuously take corresponding measures for resolving overcrowding.

In addition, although the urban railway network is almost completed, the further enhancement of the urban railway network is being worked out, through the effective utilization of existing facilities, the utilization of the “Act on Improving the Convenience of Urban Railways” that works on speed enhancement and the sophistication of traffic knot functions and continues the development of a direct route between Sagami Railway and Japan Railway (JR) and a direct route between Sagami Railway and Tokyu Railway; and improves user convenience, etc.



Major new city railway lines under development

(As of March 31, 2010)

Name of Developer	Name of Line	Zone	Opening schedule
Sendai City	Tozai Line	Dobutsu-Koen - Arai	Fiscal year 2015
Narita High-Speed Railway Access (Type III railway business)	Narita High-Speed Railway Access Line	Imba Japan Medical College - Narita Airport High-Speed Railway Line connection point	Fiscal year 2010
Nagoya City	Line 6 (Sakuradori Line)	Nonami - Tokushige	Fiscal year 2014
Osaka Soto-Kanjo Railway (Type III railway business)	Osaka east line	Shin-Osaka - Hanaten	Fiscal year 2018
Osaka Port Transport System	Hokko Technoport Line	Cosmo Square - Shin-Sakurajima	Fiscal year 2012

(5) Development of urban monorails, new transportation systems and LRT (Light Rail Transit)

At the same time, to clarify mobility assurance for dealing with few children and the aging of society, the development of LRT etc. is being supported in order to push forward urban traffic smoothness, environmental burden reduction and the use of transfers to public transport from the viewpoint of central urban district invigoration. In FY 2009, support was provided for the development of a local train loop-line (Toyama City), which has started to operate as LRT utilizing a method of separating infrastructure and service management.



(6) Improvement of bus convenience

Beginning with omnibus development that pushes forward road development focused on buses, various actions are taken for improving convenience. Actions include the improvement of punctuality and speed by utilizing the public transport priority system (PTPS) and bus lanes, the introduction of the bus location system that provides bus location information, and the introduction of an IC card system that enables smoothness when getting on/off the bus.

Chapter 5: Construction of a Competitive Economic Society

Section 1 – Developing the Traffic Network

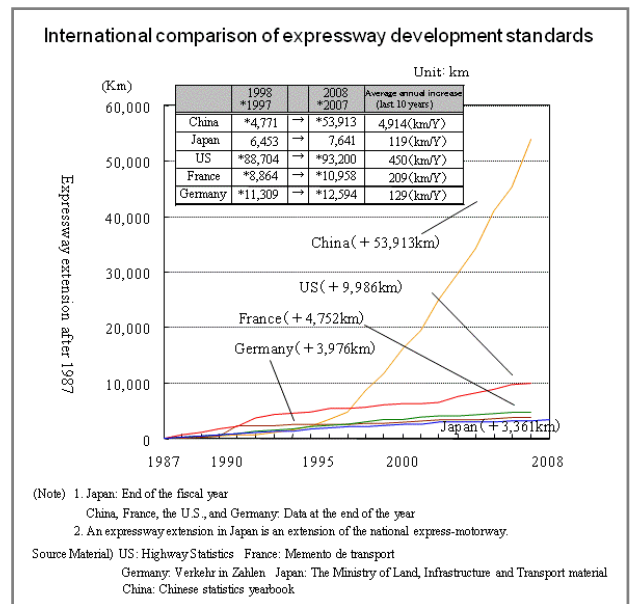
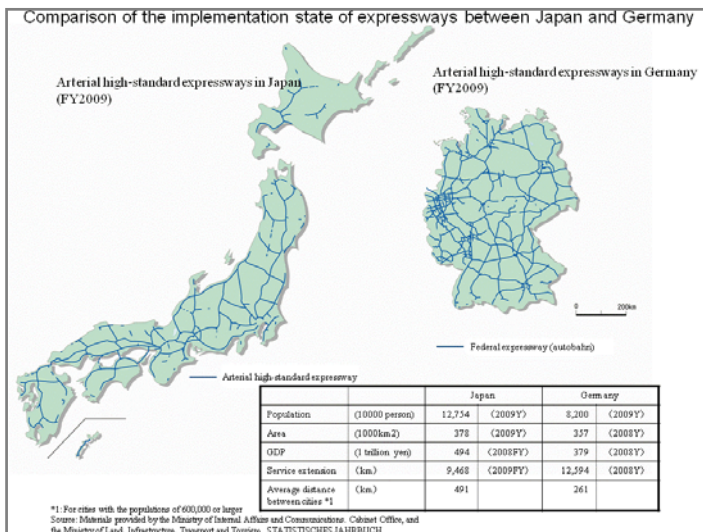
1. Developing arterial roads

Starting from the 1st Road Development of a 5-year Plan formulated in 1954, arterial road development has been steadily continuing until now. For example, the arterial road development of expressways contributes greatly to regional economic invigoration by inspiring the construction of factories near expressway interchanges. In addition, it has been contributing greatly also to the living quality of citizens and security improvement by enabling access to regional medical services in local areas and ensuring regional detours in case there is a blockage of the expressway due to an accident, etc.

Outlines and actual results of improvement and expansion of high-standard arterial and regional roads	
	Actual results
High-standard arterial roads	(Roads extended) End of FY2008: 9,468 km End of FY2009 (Projected): 9,711 km (Roads to be extended during FY2009) Chugoku Odan Jidosha Do (Chizu to Kawara) (New, directly controlled methods)
High-standard regional roads	(Routes and zones designated as of April 2009) Number of candidate routes: 110 Number of planned routes: 186 Planned routes designated to be extended: Around 6950 km Zones under planned investigation: Around 1,067 km Zones to be improved: 3,289 km Roads to be extended: 1,915 km (Roads to be extended during FY2009) Kanaya Omaezaki Renraku Road (Kanaya Sagara Road)

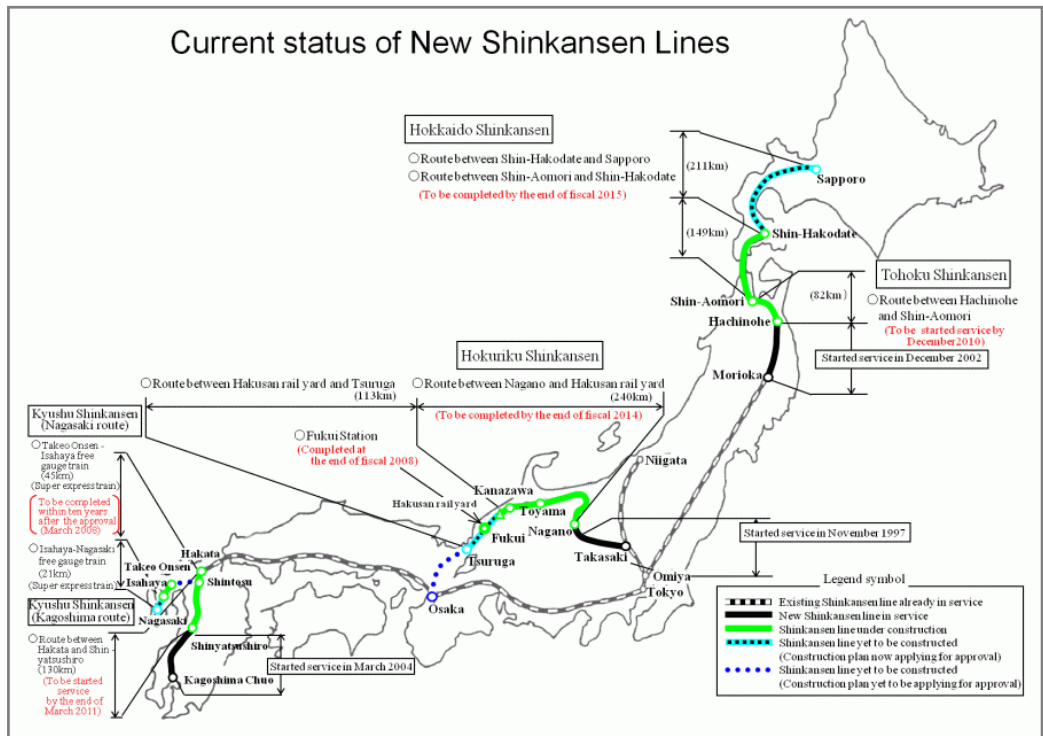
The arterial road network, including high-standard expressways and high-standard regional roads, constitute a very important infrastructure for Japan, which extends far to the north and south and has connections between regions hindered by mountain ranges and straits separating the major islands. It is vital to build arterial road networks and to secure their functions for the development of a safe and secure nation.

Moreover, in foreign countries, for example, when comparing the average distance between two cities with populations of over 0.6 million, in Germany, which has the same land area as Japan, Japan's figure is around two times of Germany's, but the service extension of high-standard expressways is only around 3/4 of Germany's. For China, even though it developed later than our country, has been developing for 26 years, and started the development of expressways in 1988, 53,913km of expressways overall have already been completed and development is still continuing at 41 times the rate of our country.



2. Developing the Trunk Railway Network
 (1) Development of Shinkansen railways

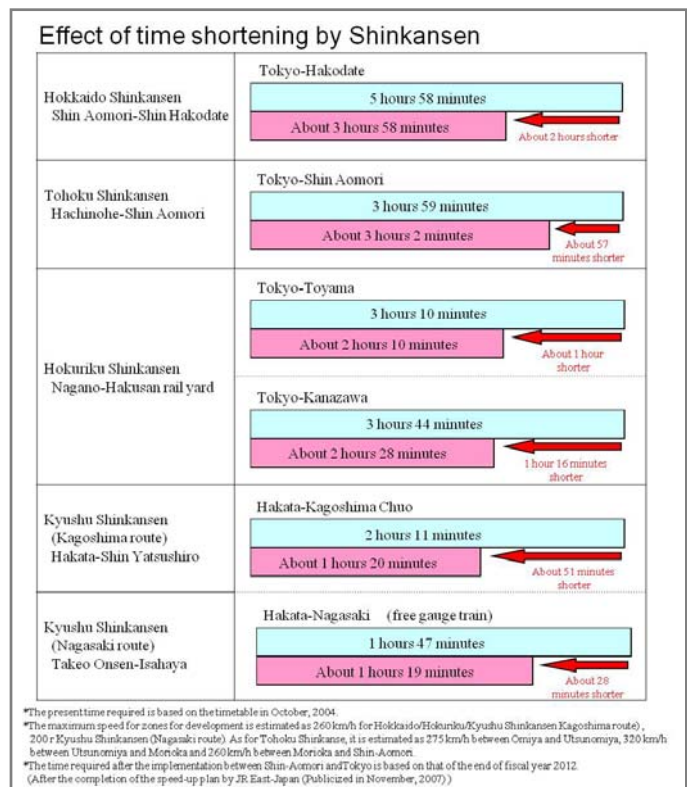
The Shinkansen serves as a fundamental high-speed transport facility that shortens travel time and has a significant effect on regional development as well as economic invigoration. The Shinkansen also has excellent features, which are secure (from the establishment of the Tokaido Shinkansen in 1964, the number of accidents causing the death of a passenger is 0) and environmentally-friendly (the CO₂ emission basic unit (g-CO₂/person/km) of the railway is 1/6 that of an airplane and 1/9 that of a private car).



Regarding New Shinkansen Lines¹, currently, five lines are under construction and progressing steadily. They are the Hokkaido Shinkansen (Route between Shin-Aomori and Shin-Hakodate), Tohoku Shinkansen (Route between Hachinohe and Shin-Aomori), Hokuriku Shinkansen (Route between Nagano and Hakusan rail yard), Kyushu Shinkansen - Kagoshima route (Route between Hakata and Shin-Yatsushiro) and Kyushu Shinkansen - Nagasaki route (Route between Takeo-Onsen and Isahaya) respectively.

Furthermore, in December 2009, “the Review Conference of New Shinkansen Lines” and “the Coordination Meeting of New Shinkansen Lines” were established and “the Basic Principle about the development of New Shinkansen Lines” was concluded. Going forward, further review will be carried out on specified items, including the start of construction of new sections and support for the parallel old lines.

Regarding the Chuo Shinkansen, one of the basic planned lines based on the Nationwide Shinkansen Railway Development Act, the research report on the transportation capacity, the development of the technologies for the facilities and train vehicles and the construction cost was submitted in December 2009 by the researchers, Japan Railway Construction, Transport and Technology Agency and Central Japan Railway Company. Then, the Transport Policy Council was consulted about the designation of the Operator and the Constructor and the decision of the Development Plan in February 2010, and it has been discussing since March of the same year.



¹ The five Shinkansen lines that were prescribed in the Development Plan determined in 1973 based on Nationwide Shinkansen Railway Development Act.

(2) Development of existing railroad lines

In order to push forward the formation of high-speed transportation systems that contribute to the reinforcement of wide-area cooperation between regions and regional invigoration, an increase in the speed of existing railroad lines, through the improvement of railroad bends and the partial introduction of double tracks, is planned, by making the best use of existing railway facilities. From FY 2009, projects on increasing speed, such as the setup of new power supply facilities and the repair of signal and communication facilities, are being implemented on the Sassho Line (from Souen to the Health Sciences University of Hokkaido) of Hokkaido Japan Railway.

(3) Promotion of technology development

1) Superconducting magnetic levitation transportation system (Superconducting Linear)

In terms of the technology development of the Superconducting Linear, the trial run on the Yamanashi Test Line has been continuing since 1997. In July 2009, the “Practical Technology Evaluation Committee” consisting of experts, made the comment that “it is an ultra high-speed mass transportation system with foreseeable practical technology establishment in the operational aspect”. Furthermore, technological development that is conducive to cost reduction, is being pushed forward.

2) Gauge Changeable Train (Free Gauge Train)

The Free Gauge Train is a train that can change the left-right wheel distance automatically by combining with the gauge. If it is put to practical use, direct operation between Shinkansen and old railroads will be possible and user convenience can be increased. Currently, technological development, such as the implementation of indoor experiments, by using the improved new-type train according to the results of various tests taken so far, is being pushed forward.

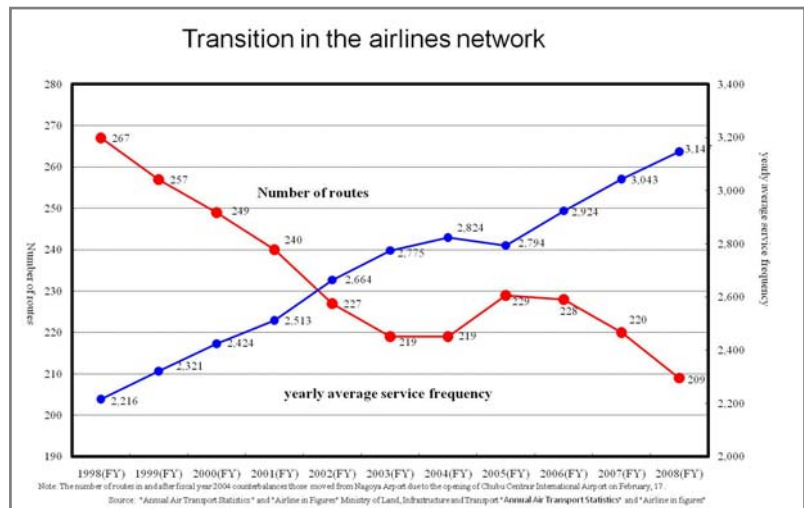
3. Development of airline networks

(1) Domestic Airlines

1) Current situation and issues

As part of domestic airline policy, network expansion is being planned through taking hard measures such as airport development and soft measures, such as the promotion of competitiveness, through regulation relaxation. Recently, there has been a tendency to decrease the number of routes but increase the yearly average service frequency per route.

This trend is considered to be the result of airline companies changing from the expansion of the number of routes, taking the demand trend into consideration and concentrating on existing routes. Among these, the route-concentrating Tokyo International (Haneda) Airport is reaching the upper limit of passenger traffic. In order to deal with the trend of increasing demand in the future, capacity expansion is an urgent issue for responding to user convenience.



2) Soft measures for enhancing the domestic airline network

In order to plan for the formation and enhancement of regional airline networks, efforts are being made on relaxation measures of landing charges and the allocation of landing/takeoff slots. The slot allocation of Tokyo International (Haneda) Airport is contributing to the formation and the enhancement of the national air network, including adding regional routes to the evaluation items of the Airline enterprises’ evaluated slot¹. Also, the diversion of slots for low-frequency routes is admitted only when airlines use the slot for other low-frequency routes. Moreover, to maintain regional routes, there is a collection of slots for when airlines reduce the service frequency of those routes that are allocated as priority slots to new airlines² after FY 2005, unless the airline diverts the slot for use for the landing-fee-reduced route of Tokyo International (Haneda) Airport.

In FY 2009, regarding the 27,000 domestic landing/takeoff timeslots (37 per day) in the 1st stage (the period from the service started in October 2010 to the half-year after) due to the capacity expansion of Haneda Airport, allocation was carried out in a way that secured the maintenance/enhancement of the regional airline network and ensured the fairness of competition conditions for new airline enterprises under the condition that it will be reviewed in the increased timeslot allocation period of the 2nd stage.

¹ Landing/takeoff slots allocated according to the evaluation of certain evaluation items related to the business activities of airline enterprises

² Landing/takeoff slots allocated with high priority for the promotion of competition of new airline enterprises or business expansion.

(2) International Airlines

1) Current situations and issues

Being affected by the global business recession, the economic outlook of the airline industry became unforeseeable after 2008. There were movements, such as the reduction in routes/service frequency and the cost cutting of headcount/equipment, taken by airline enterprises in all countries, including Japan.

The expansion of the international airline network is indispensable because the international air transportation of our country is shouldering most of the international tourists and the importance of air transportation for international freight is increasing. Therefore, promotion is being planned much more firmly than in the past through the development of international airports and the conclusion of new air arrangements.

2) Open Skies

Open Skies that eliminate the limitations related to routes and service frequency was formed with Canada, the United States and Sri Lanka in April 2009, December 2009 and March 2010 respectively, for the airline enterprises to take appropriate actions responding to the demand trend and to add new routes or increase service frequency by flexible business decisions. Until now, Japan has negotiated Open Skies with 10 countries/regions. From now on, countries/regions will continue close negotiations in order to set the framework as flexibly as possible.

(3) Extension of the international airline functionality of the airports in the metropolitan area (Narita/Haneda)

In 2010, the realization of increasing the total number of international regular flights to 80,000 (60,000 flights for Haneda, 30,000 in the afternoon and 30,000 at night; 20,000 flights for Narita) and an increase, to a great extent, in the international arrival/departure frequency of the airports in metropolitan area is being aimed at.

Up to now, Haneda Airport has come to an agreement for the establishment of international regular flights with a total of 12 countries/regions. These are day flights between Korea, Hong Kong and Taiwan and overnight flights between Asia (Korea, Hong Kong, Thai, Malaysia and Singapore) and Europe (Germany, Netherlands, France and the United Kingdom). Also, there are flights already taking the lead in international regular flight services. These are day charter flights for international tourists between Gimpo International Airport in Seoul (started in 2003), Shanghai Hongqiao International Airport (started in 2007) and Beijing Capital International Airport. The daily flight frequency is 8, 4 and 4 respectively.

Narita Airport has also agreed to transportability expansion between 22 countries/regions overall, including Hong Kong, Macau, Vietnam, Thailand, Singapore, India, Sri Lanka, Qatar, the United Arab Emirates and Turkey in Asia; Papua New Guinea in Oceania; Egypt in Africa; Poland, Austria, Germany, Switzerland, Italy, Netherlands, Scandinavia and Finland in Europe.

In the future, at the same time as working on changing Haneda Airport to a 24-hour airport and further expanding the capacity of Narita Airport, the integrated utilization of the two airports will be pushed forward, in order to realize the maximization of the international airline functionality of the airports in the Metropolitan area.

(4) Enhancement and efficiency improvement of airport management

As the focus of airport policy shifts from development to management, the "Airport Act" aims to further enhance and improve the efficiency of airport management so that existing resources are utilized and the quality and convenience of airports will be enhanced. For these purposes, the Act established a mechanism to ensure appropriate airport terminal management and developed frameworks for coordination among stakeholders for active cooperation.

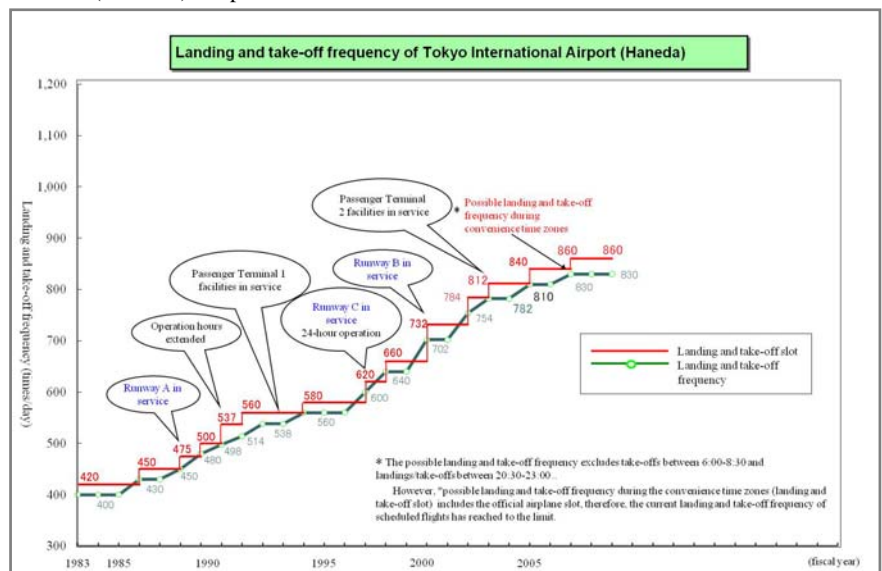
(5) Current status of airport development

1) Development of Tokyo International (Haneda) Airport

A. Current Status

Tokyo International (Haneda) Airport has formed a network with 49 airports in the country and the daily number of flights is 420. There are 60 million people using domestic airlines yearly (the result of regular flights in FY 2008).

Although the airport's limit for arrival and departure has been expanding from development projects until now, it is already reaching the limit of its capacity. In the future, there is a foreseeable further increase in the demand for domestic and international airlines and the integrated utilization of Narita International Airport, as an airport in the metropolitan area, is being requested.



B. Re-expansion Project

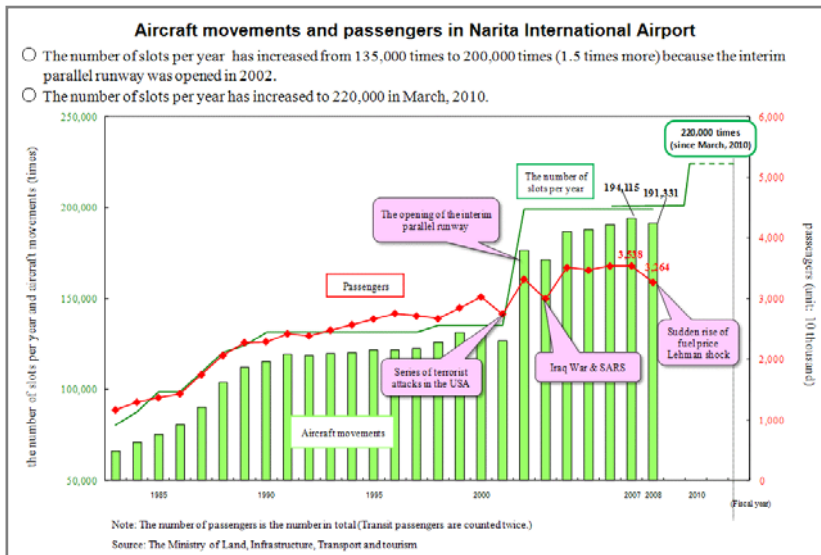
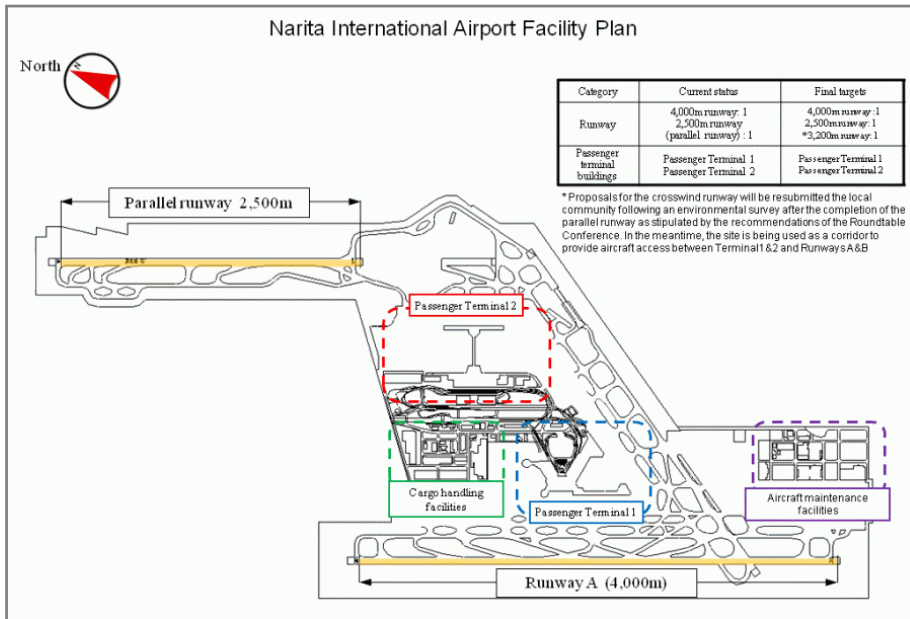
Since FY 2004, the re-expansion project has been progressing. It is a plan that works on resolving the limitation of landing and takeoff capacity, forming a diversified route network and improving user convenience by increasing frequency, through building a new 4th runway and strengthening the yearly landing and takeoff capacity. At the same time, the growth of both domestic and international demand has been taken into consideration and international regular flight services have been planned.

In this regard, full-scale construction of the runway development project has been started since March 2007. Additionally, the project on regional development for international airlines (Passenger Terminal Project, Freight Terminal Project, Freight Apron and related projects) is being pushed forward steadily by utilizing PFI execution, and the aim is for it to be in service by the end of October 2010.



2) Development of Narita International Airport

Narita International Airport has been performing an important role as the gateway of Japan since opening in 1978. However, its airport capacity has almost reached its limit even though the interim parallel runway has been in service since 2002. Also, it is unable to respond to requests for the entry of new airlines and an increase in service on existing routes from airlines. Under such circumstances, in September 2006, construction to extend the parallel runway to 2,500m was started after obtaining the understanding of regional authorities, etc and it has been in service since October 2009.



3) Current status of Kansai International Airport and Central Japan International Airport

Kansai International Airport has become the first international airport capable of operating round-the-clock in Japan since the 2nd runway was in service in 2007. In April 2009, at the same time as the 2nd phase International Cargo Area was in service, the improvement of accessibility was carried out through reducing the tolls of the airport access bridge. Also, the reinforcement of international competitiveness is being worked on continuously.

Central Japan International Airport works on being more user-friendly through the development of the international business jet hanger and further demand expansion.

4) Development of general airports

For general airports, the emphasis has shifted to quality enhancement focusing on the effective utilization of existing airports. Moreover, new projects related to additional runway construction and existing runway extensions will be restricted only to truly necessary items. In FY 2009, three new airport construction projects and two runway extension projects were implemented and the renewal and reformation for the functionality maintenance of existing airports are being carried out. Moreover, for the drastic improvement of airport capacity, Fukuoka Airport is reviewing the proposal of additional runway construction in the airport based on a comprehensive investigation, while Naha Airport is reviewing the specific facility arrangements regarding the proposal on new runway construction by the seaside that is 1,310m away from the existing runway.

5) Projects on enhancing the functional quality of airports

In order to improve the convenience of airport users as well as to reinforce international and regional competitiveness, projects on enhancing the functional quality of airports for rearranging or developing passenger terminals, improving serviceability, reinforcing air logistics functions and building barrier-free airports are being pushed forward.

(6) Development of air traffic systems

1) Improving operation efficiency

From September 2007, Area Navigation (RNAV) routes based on the standard of the International Civil Aviation Organization (ICAO) were introduced one by one. It is expected that this will expand capacity by multiplying flight routes, reduce flight times and fuel cost by shortening routes and improve airport service rates by improving operating conditions. In addition, at the same time as carrying out the optimization of airspace structure using simulations and the flexible utilization of training airspace for the Self-Defense Forces, the functionality of the Air Traffic Management (ATM) Center, such as the forecast of traffic flow and volume and the improvement of control accuracy, is enhanced and reinforced. Also, the congestion relaxation of national air routes and the reduction of airborne holding are being planned for through performing detailed traffic management.

2) Construction of new Air Traffic Systems

Currently, the existing system has reached its limit in terms of responding to the foreseeable long-term increase of air traffic demand and diversified needs. Furthermore, Europe and America have worked out plans for a comprehensive and globally harmonized interoperability called Air Traffic Management (ATM) that focuses on the situation of 2025 and after. Therefore, industry, academia and government organized a study group and compiled a long-term vision named CARATS¹, for the purpose of establishing highly comprehensive support systems for operation, controllers and pilots through precise management of position and time.

Section 2 – Cooperation Reinforcement for Multi-modal Traffic Organizations

1. Construction of Multi-Modal Traffic Systems

A multi-modal traffic system is a traffic system that provides an efficient and good traffic environment through the cooperation of multiple traffic organizations. It aims to strengthen the international competitiveness of our country and provide a door-to-door service in an environmentally-friendly way and at an appropriate cost. In order to push forward these multi-modal measures, improvements in speed and smoothness of transportation connections/transshipment by focusing on cooperative development of roads and railways connecting airports, harbors, ports, railway stations and high-standard expressways are being worked out.

2. Enhancement of Transportation Access to Airports

Regarding the transportation time from the city center to the airport, it takes over 50 minutes to reach Narita International Airport, which is the longest among the world's major countries, while it takes only around 30 minutes for other main world airports (London, Paris, Hong Kong, etc). In order to work out improvements of convenience and the enhancement of international competitiveness, it is necessary to shorten transportation time to a great extent. Therefore, the development of the Narita Rapid Rail Access connecting Narita International Airport and the Hokuso-Railway is being carried out. After the scheduled opening of the Narita Rapid Rail Access in 27th July 2010, the time taken to travel between the city centre and Narita International Airport will be shortened to around 30 minutes. Also, the renovation of Nippori Station (Keisei Electric Railway) was implemented for improving transfer convenience.

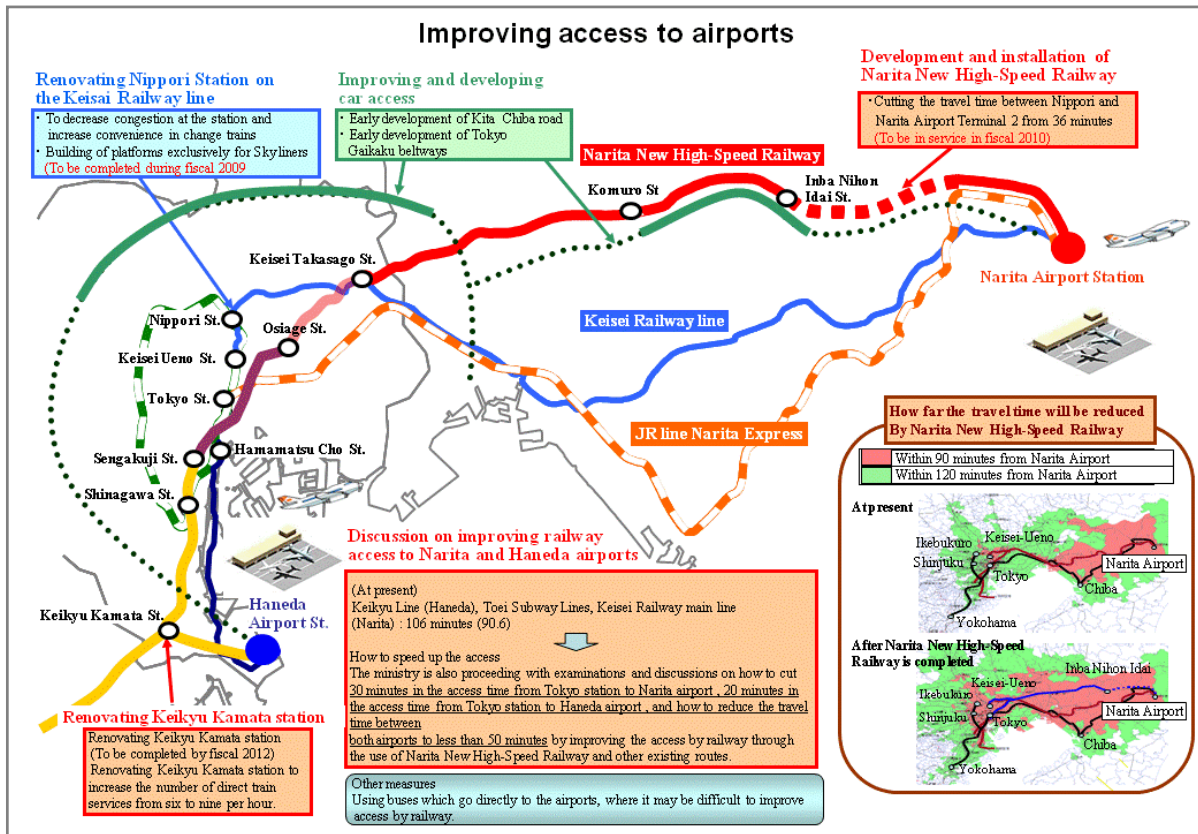
Moreover, in order to enhance access to the airport by automobiles, the development and improvement of expressway

¹ Collaborative Actions for Renovation of Air Traffic Systems

networks, including the improvement of the east front of Tokyo's Outlying Ring Road System, are being carried out.

In addition, regarding access to the Tokyo International (Haneda) Airport, the renovation of Keikyu Kamata station is being carried out in order to increase the capacity of the Keikyu Airport Line and the frequency of train services from the direction of Yohohama.

Furthermore, from the viewpoint of maintaining and enhancing the international competitiveness of the metropolitan area, the integrated utilization of Tokyo International (Haneda) Airport and Narita International Airport is being pushed forward. At the same time, examination and review are being carried out for further enhancement of transportation between Tokyo Station and the two airports as well as railway access between the two airports.



Section 3 – Promotion of Comprehensive and Integrated Logistics Policies

Comprehensive logistics policies were being pushed forward based on the “Comprehensive Logistics Policy Outline (2005-2009)”. However, in the coming future, there will be various changes to the circumstances surrounding logistics such as further globalization of economic structures, the increasing necessity of global warming measures and increasing demand for ensuring freight security.

To cope with the issues triggered by the above situations quickly and precisely, the government determined the “Comprehensive Logistics Policy Outline (2009- 2013)” via the Cabinet Council in July 2009. This outline acts as the basic direction of the measures in 3 aspects and will comprehensively push forward logistics policies. The 3 aspects are: 1) the realization of efficient logistics for supporting the global supply chain, 2) the realization of logistics with little burden on the environment, 3) the assurance of safe and accurate logistics. Based on this outline, the promotion of low-carbon logistics through the improvement of regional logistics environment in each Asia country and the cooperation between various related parties such as logistics corporations, shippers, regional public organizations, etc.

1. Measures to Strengthen International Logistic Functions

(1) Promotion of international logistics policies that fulfill needs

Based on the Comprehensive Logistics Policy Outline, the promotion of comprehensive and strategic international logistics policy is being worked out. From the viewpoint of the evolution of measures satisfying the needs of the front line, the “International Logistics Strategic Team” formed by a wide range of related parties is being established in 10 regions in the country. For example, measures that are full of ingenuity related to regional situations are also being initiated, such as the demonstrative experiment carried out in Northern Kyushu regarding the popularization of 12-foot containers in North East Asia on the basis of a decision made by the 2nd Logistics Minister Conference of Japan, China and Korea; and the examination review towards the popularization promotion of Sea and Rail transportation carried out in Osaka Port in Kansai.

Additionally, in relation to overseas countries, the investigation of the logistics bottleneck in India is being carried out for

enhancing the conditions of the logistics business.

(2) Enhancement of the foundation of international ocean transportation networks

In the context of the globalization of the economy, the worldwide ocean transportation quantity is increasing every year. From the viewpoint of improving the efficiency of ocean transportation by large-quantity bulk transportation, the size of containers and ships for bulk freight transportation is increasing. In view of this, the freight handling capacity is increasing smoothly in the major container ports of every Asian country and their international competitiveness against the container ports of our country is becoming increasingly intense. Moreover, affected by the rapid economic development of neighboring countries in terms of bulk freight, the competition for obtaining resources, energy and food will also continue.

Therefore, in order to provide a service level of the highest worldwide standard and adequate port services as early as possible, from the viewpoint of the enhancement of the international competitiveness of ports through more “choices” and further “concentration”, the “International Container Strategic Port Review Committee” and “International Bulk Strategic Port Review Committee,” established in December 2009 under the MLIT Growth Strategy Conference, are carrying out reviews among the related parties.

Further, with these reviews, measures for realizing an international-domestic integrated efficient ocean transportation network are being pushed forward continuously. At the same time, further enhancement and reinforcement of measures are in progress.

1) Enhancing and deepening the Super Central Port Project

The Super Central Port Project aims to achieve a standard for cost and service that surpasses that of the major ports in Asia. It also targets a reduction in port cost by 30% and the lead-time by one day for providing a high frequency, multi-course, direct and high quality route service. For this, the Minister of MLIT has designated special designated important ports (Super Central Ports), including Keihin Port, Ise Bay (Nagoya Port and Yokkaichi Port) and Hanshin Port. Moreover, private enterprises have received authorization for running and starting businesses one after another. In addition, the total functionality enhancement of the Super Central Port is being worked out through developing a high-level and large-scale coastal logistics center and changing port terminal public corporations to limited liability corporations, for enhancing and complementing the functionality of container terminals. At the same time, in order to develop a seamless logistics network connecting local and overseas freight, the promotion of the comprehensive central reformation project of container logistics is being worked out with the cooperation of private enterprises and port administrators on 24-hour port service development, local feeder transportation, marine container transportation by railway, etc.

2) Enhancing port procedures

Concerning the “Next-Generation Single Window” positioned as the Asia gateway idea named the “Trading Procedure Reform Program”, the related ministries and government offices, especially MLIT, have unified and simplified port administrative procedures and e-application of 11 procedures were newly added from October 2009.

3) Enhancing the functionality of international ports

As for minimizing the difference in domestic logistics with East Asia logistics in terms of time and distance, according to the high-level and diversified needs, international unit load terminals and facilities for facilitating freight transshipment are being developed. Moreover, to establish an international ocean transportation network and a regional stronghold, the development of International Ocean Container Terminals and Multi-purpose International Terminals as well as measures for improving convenience, such as through the introduction of ICT (Information and Communications Technology), are being carried out, in order to cope with the increase in international ocean container freight and bulk freight such as chips, wood, coal, etc.

4) Development of marine traffic conditions

Due to there being shallows located on international main routes, those places with hindrances for navigation in the gulf are improved. At the same time, the marine traffic environment development for ensuring both the security of ship navigation and the efficiency of ocean transportation are also being carried out.

(3) Enhancement of air logistics functionality for uplifting international competitiveness

The freight handling capacity of the airports of neighboring Asian countries are greatly expanding due to an increase in the quantity of freight accompanied by the growth of Asia. Japan is also expected to aggressively draw in more Asian freight than the existing quantity, while the increase in Asian freight is expected in the near future.

(4) Other measures contributing to the enhancement of international logistics functionality

With the continuous economic exchange with the Asia region, there is urgent need for the formation of efficient logistics networks closely connecting international logistics and the domestic transportation modes of air, sea and land. Therefore, the development of an expressway network, which enables the international standard container vehicle¹ to pass through without transshipment in major ports and large-scale logistics strongholds, is being pushed forward.

To be specific, in order to deal with the traffic hindrance areas of international containers and ensure the necessary heavy-weight resistibility and sufficient space for the international standard vehicle to pass through, the measures of bridge strengthening, road expansion and bypass development have been implemented. At the same time as working out an early

¹ The trailer loads a tall and lean container that is 40-feet in length (around 12m). The maximum total vehicle weight at loading is 44 tons and the height is 4.1m.

resolution, the construction of the road network supporting international logistics is being pushed forward through chiefly and effectively developing access roads connecting expressways which link to logistics activity centers, that is, airports and ports. Moreover, other than promoting Sea and Rail utilization by combining ocean and railway transportation and supporting the increase in freight demand in East Asia, the promotion of consistent international multi-modal transportation, such as the development of railway transshipment facilities in super central ports and local feeder transportation, is underway.

2. Policy for Construction of Efficient Logistics System

(1) Promotion of introducing information technology for logistics

In the field of logistics, it is important to push forward precisely the introduction of Information and Communications Technology (ITC) on various fronts, such as by the optimization of administrative procedures relating to business efficiency, congestion avoidance and logistics flow.

(2) Efficiency enhancement of logistics between regions

For improving the efficiency of consistent multi-modal transportation, the reinforcement of freight transportability and development of ports, freight terminals and other logistics centers are being carried out. In order to increase the transportability of railway freight transportation between Kitakyushu and Fukuoka and of Suda Station, facilities development such as the extension of terminal lines/container platforms is being implemented.

Additionally, for truck transportation, the basic network consisting of high-standard roads connecting main cities, metropolitan beltways and high-standard expressways supporting the nation and regions are being developed. At the same time, the approval system for the Comprehensive Plan on Efficient Improvement¹ was established and support is provided according to the “Act on Advancement of Integration and Streamlining of Distribution Business”. By the end of March 2010, the number of approved Comprehensive Plans on Efficient Improvement based on the same act was 140.

(3) Efficiency enhancement of logistics in the city

The efficiency enhancement of logistics in the city has become an issue due to the global warming problem, compact city formation, an increase in large-scale multi-purpose buildings and a rise in the rigidity of parking control. In FY 2009, the “Project on Logistics Cooperative Efficiency Enhancement Promotion” was established with the cooperation of logistics corporations, shippers, regional public organizations and other parties related to logistics for supporting cooperative transportation within the city and the area surrounding the logistics center, modal-shift measures and measures for improving logistics efficiency. 12 projects in total were approved.

Additionally, based on the “Act on the Improvement of Urban Distribution Centers”, the development of 22 cities and 29 urban distribution centers² were carried out (27 areas are in progress among these) by the end of March 2010. Moreover, the enhancement of urban distribution functionality and the improvement of the smoothness of road traffic are being worked out by locating the facilities of distribution businesses appropriately and intensively.

Furthermore, in order to reduce the number of vehicles parking and processing freight on the road, regional public organizations are being pushed to build ancillary freight processing facilities based on the ordinance on the duty to provide ancillary parking facility. Up to the end of March 2009, 82 autonomous bodies have implemented ordinance revision by adding the duty to provide ancillary parking facilities for certain commercial facilities.

In addition to this, in order to push forward measures on traffic flow, the road network development of expressways such as beltways, structural enhancement of intersections and the resolution of non-open railroad crossings are being worked out. At the same time, measures such as the independent diversion³ of trucks are being pushed forward for the purpose of improving freight carrying efficiency.

(4) Measures for new logistics services

In light of business resource concentration towards the main business of shipping enterprises and the necessity of supporting sophisticated logistics needs, the number of logistics corporations developing a new logistics service business called the 3PL⁴ business is increasing.

To further push forward the 3PL business, the development of conditions favoring logistics corporations for the 3PL business is being worked out, through the implementation of 3PL personnel training and the formation of the “Regional 3PL Business Model”.

¹ The plan comprehensively and efficiently implements logistics businesses by being located near infrastructure that has functions that join expressway interchanges and ports, focusing on specific distribution business facilities that are equipped with automatic rack and information processing systems, etc.

² The appropriate suburban districts are constructed as large-scale logistics centers in which logistics related facilities, such as truck terminals and warehouses, are intensively concentrated.

³ The self-use truck (a truck for transporting the company’s own freight) is changed to a business-use truck (a truck for providing freight transportation services, for a fee, at the request of other companies) for increasing transportation efficiency and lowering the transportation cost by transporting the freight of multiple shippers in the same truck.

⁴ Third Party Logistics – a one-stop and high-quality logistics service provided by shippers

Section 4 – Revitalization of Industries

1. Trends and measures of railway-related industries

(1) Railway industry

1) Trends and measures of the railway industry

The number of railway passengers in FY 2008 was affected by the unfavorable business environment due to sluggish economy, and the aging population and the low birth rate. However, it has increased slightly and continuously from last year. For the Japan Railway (JR), the number of passengers on Shinkansen lines and old railway lines is decreasing. On the other hand, for private railways, the number of passengers is increasing generally due to the increase in the number of student/worker passengers and non-regular passengers, especially in the Kanto area.

Regarding the railway freight transportation quantity of FY 2008, growth in the quantity of container freight transportation in the 1st half was comparatively smooth, although there were transportation incidents because of the local downpour during August and September. However, affected by the business recession in the 2nd half, the total transportation quantity decreased. For freight transportation by vehicle, there was a decrease in the demand for petroleum transportation accompanied by the development of fuel switching.

Every railway enterprise is working to ensure the provision of a comfortable and secure railway environment. For example, most of the railway enterprises in urban districts have been establishing the steady introduction of female-friendly carriages. Moreover, beginning with the introduction of “Suica” by JR East Japan in 2001, the introduction and cross-application of the IC Card ticket are being carried out in every region and expanded to the whole country, such as the “SAPICA” of Sapporo City Transportation Bureau, the “Desuka” of Tosa Electric Railway, the “SUGOCA” of JR Kyushu and the “Hayakaken” of the Fukuoka City Transportation Bureau, established in 2009. In the future, the introduction and cross application of the IC Card ticket are expected and are being continuously planned for, for further enhancement of user convenience.

2) Measures for total privatization of Japan Railway

For more than 22 years after the Japan Railway (JR) companies broke off from the national railway due to privatization in April 1987, each region has continuously endeavored to run their business with their own particular features. Recently, the East Japan Railway, Central Japan Railway and West Japan Railway completed the disposal of the shareholdings of railway construction and transportation facility development support companies and were completely privatized. However, the measures for running business management with the aim of reforming national railways have to be steadily applied and for some time, in accordance with the progress of the nation railway reform.

Furthermore, the Hokkaido Railway, Shikoku Railway, Kyushu Railway and Japan Freight Railway are playing important roles in ensuring regional transport convenience and promoting railway freight transportation with less of a negative impact on the environment. Therefore, the government is continuously working to secure and enhance the management foundation by extending support measures for reducing the fixed asset tax, etc. Moreover, measures for increasing revenue and reducing costs are being carried out.

(2) Railway carriage industry

The sales of railway carriages fluctuate with the ordering circumstances of the year. However, in recent years, it has been consistently moving sideways (in FY 2008, the number of new carriages was 2,232 and the gross sales was 208.9 billion yen).

In FY 2008, there was a decreasing trend for the domestic market (79% of FY 2007). Additionally, for overseas export, there was an increasing trend for Asia but a decreasing trend for Europe. As a whole, there was a decreasing trend (94% of FY 2007).

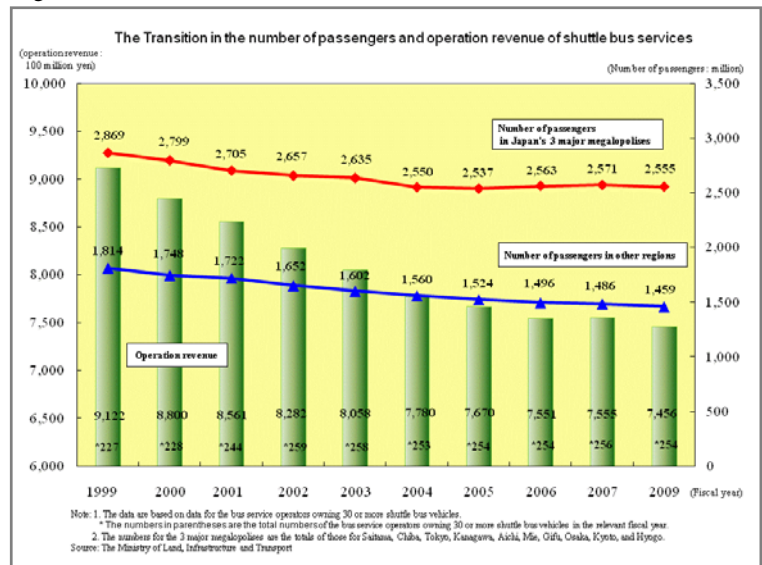
Railway carriage manufacturers are cooperating with railway companies to develop carriages that fulfill the various social needs of enhancements in speed, security and comfort as well as a low-noise and barrier-free environment. Moreover, cost reduction is being carried out by working out laborsaving on design work and promotion of standard products with reference to the “Guidelines for Commuting and Suburban Train Standard Specifications” that standardize the basic design and parts. Furthermore, referencing the recent standard specifications of urban carriages, the “STRASYA” which illustrates overseas urban railway system standards has been drawn up and will be utilized in the export of railway systems in the near future.

2. Trends and measures of the land vehicle transportation business

(1) Land vehicle transportation business for passengers

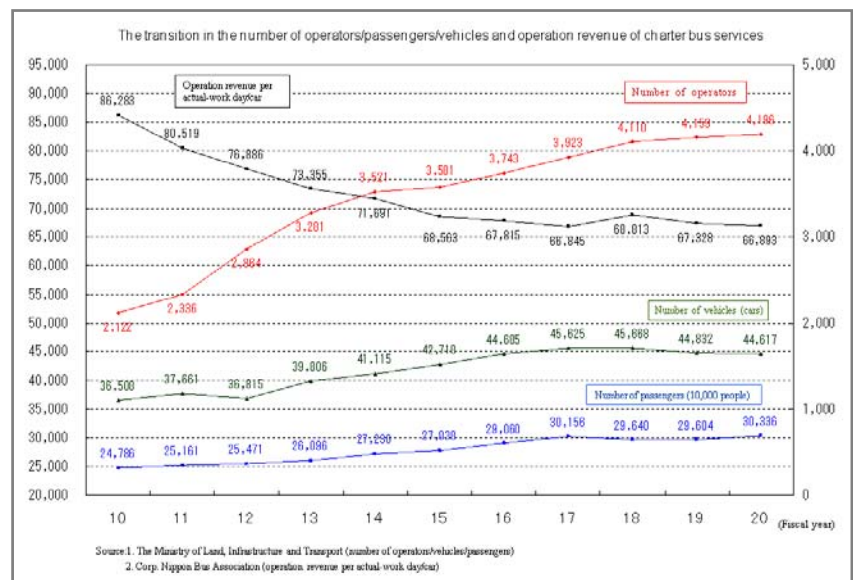
1) Shuttle bus business

Due to urban structural changes such as the depopulation of central urban areas and the impact of motorization, such as the popularization of private cars, the passengers and revenues of shuttle buses keep decreasing because transportation demand for regional centers is decreasing. Moreover, as a result of the sluggish economy, the shuttle bus business is facing severe circumstances.



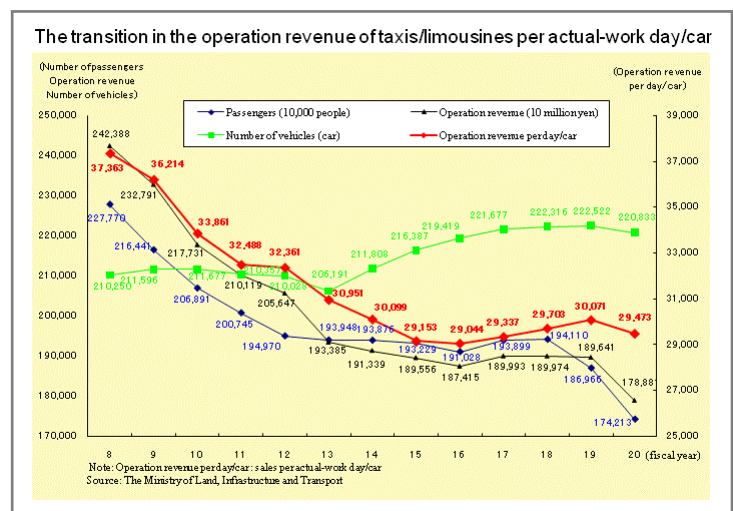
2) Charter bus business

Regarding the charter bus business, the regulation relaxation established in February 2000 inspired the implementation of cheap and diversified tours. While the enhancement of services for users is being worked out, competition is becoming intense due to the increase in the number of companies running the business. Additionally, transportation revenue is decreasing because of the reduction in group tourists and travel product prices. In addition to the jump in fuel cost, the charter bus business is facing severe conditions.



3) Taxi business

In the context of the continuous decrease in the long-term demand for taxis, there are regional problems such as the deterioration of the revenue base and working conditions because of the increase in the number of taxis and excessive taxi fares. Therefore, it is difficult for taxis to fully perform its function as a form of regional public transport. In order to cope with this problem, the ordinary Diet session approved the “Act on Special measures concerning the proper management and invigoration of the land vehicle transportation business for general passengers in special regions” in FY 2009. In the regions (designated by the Minister of MLIT) that are having problems in terms of the excessive supply of taxis, the revenue decrease for each taxi, illegal and unfair business operations and increases in accidents, the framework for pushing forward the proper management and invigoration of the taxi business was introduced by focusing on voluntary measures taken by the different related parties of the corresponding regions.

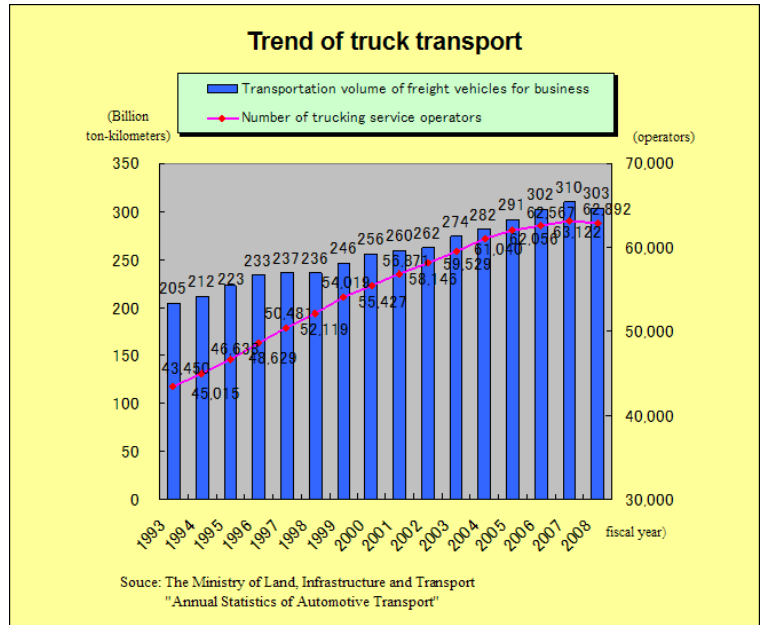


(2) Vehicle relief driver business

It is expected that the vehicle relief driver business can be used as an alternative transport method for when vehicle owners consume alcohol. However, the problems, including the unclearness of the charging system and insufficient information of reliable business operators, were pointed out. Therefore, MLIT, in cooperation with the National Police Agency, has implemented measures incorporated in the “Application Environment Enhancement Program of Relief Driver Services”. Up to the end of December 2009, the total number of vehicle relief drivers who were approved for running the business was 8,324.

(3) Land vehicle freight transportation business

The number of companies operating in the land vehicle freight transportation business and the transported quantity (ton per kilometer) have been increasing for a long time. However, in FY 2008, as there was a decrease in freight flow due to a jump in light oil prices and because of the sluggish economy, it dropped for the first time in 2 years, after the establishment of regulation relaxation. As measures for ensuring security and environmental control are being required, competition is becoming intense, with a foreseeable fare decline trend, and the business conditions of the operators is severe.



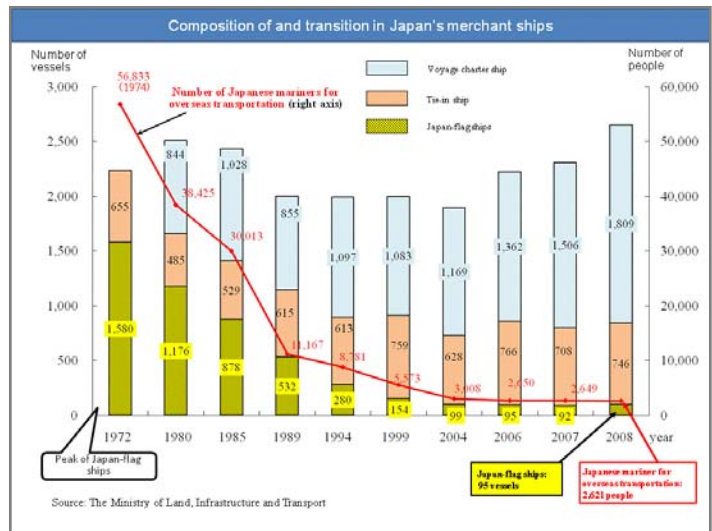
3. Trends and Measures of the Marine Industry

(1) Ensuring steady marine transportation

1) Securing Japan-flag ships and Japanese mariners

For our country, which is surrounded by sea and poor in natural resources, marine transportation, which shoulders 99.7% of trading volume and around 40% of domestic freight transportation, is the lifeline for supporting our country’s economy as well as citizens’ daily lives. Therefore, steady marine transportation is an exceedingly important issue for the development of our country.

However, Japanese-flag ships and Japanese mariners, as the core of Japan’s convoy of merchant ships for overseas transportation, are decreasing rapidly because of declining international competitiveness. Moreover, for domestic marine transportation, there is the fear that there will be a potential shortage of mariners due to the aging of mariners. These circumstances are drawing great concern for securing steady marine transportation.



In relation to such situations, based on the “Partial Revision of the Marine Transportation Act and Mariners Act”, there are 11 companies that receive the approval of the “Plan on maintaining Japanese ships and mariners” and they are approved for the tonnage tax scheme from FY 2009. The revised act stated the application of the so-called tonnage tax scheme¹ for overseas transportation business operators when they received the approval from the Minister of MLIT about the plan on Japanese ships and securing mariners as well as the supporting measures on the budget related to securing and training mariners.

¹ Concerning corporate tax and other taxes, instead of calculating the tax payment amount according to the yearly profit, this is a scheme of tax payment calculation based on the invariable presumed profit upon the ship’s tonnage. The world’s major maritime countries are using the same tax scheme.

2) Securing and training Mariners (people with seamanship)

For securing and training Japanese mariners for overseas transportation, support is provided through the tonnage standard tax scheme. In addition, for domestic Japanese mariners, planned employment is being pushed forward through the supporting scheme for business operators who have received approval for plans to secure Japanese ships and mariners. Moreover, the measures for securing and training young people who shoulder the next-generation marine industry are being worked out through the promotion of securing and training professionals for “marine region development” in marine industry centered regions, the recognition of whom will contribute to promotion of an ocean-oriented country and to public relations activities for next-generation personnel training promotion meetings of the marine industry.

Furthermore, the existing employment conditions are still severe, so support is being provided on sustaining mariner employment and re-employing former mariners by utilizing the employment adjustment subsidy scheme and the former mariner benefit scheme for occupational change.

In order to increase the occupational attractiveness of being a mariner, guidelines named the “Management System of Industrial Safety and Hygiene on the Ship” were drawn up in FY 2008 and popularization is being carried out. The guideline is for planning the gradual improvement of safety and hygiene standards and the on-going reduction of mariner disasters through carrying out continuous safety management and prescribing a series of procedures called the PDCA cycle for risk management related to ship disasters, by ship owners, on a voluntary basis.

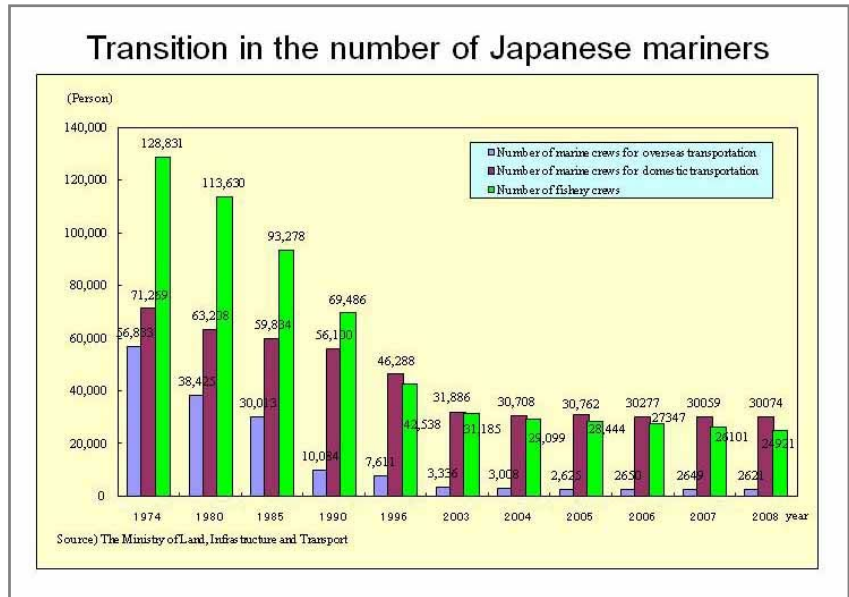
Up to now, the course for graduates from non-mariner educational institutions to obtain a license for becoming a 6th-grade seamanship specialist is only organized by the Marine Technical College. However, in order to widen the door for a career as a mariner, the necessary ordinance revision is being carried out and special training schools can also establish the same course.

(2) Marine transportation industry

1) Overseas marine transportation

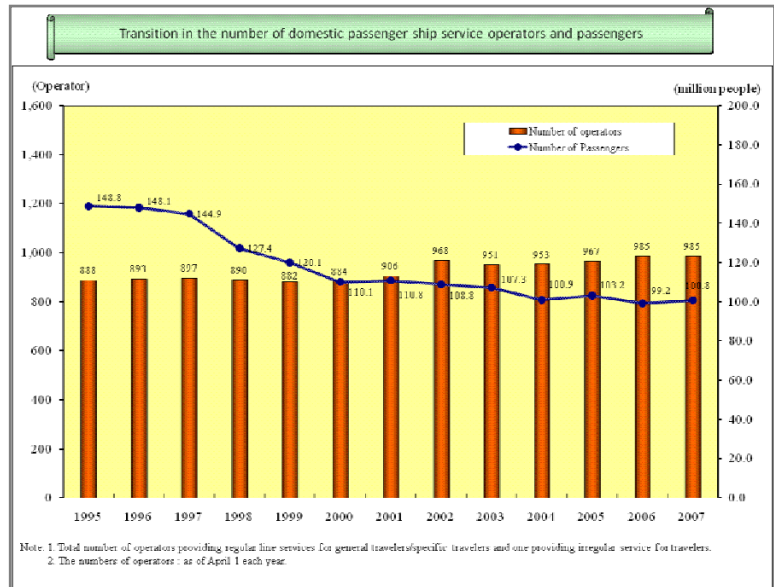
Due to the rapid growth of developing countries such as China and India, the global marine freight flow of FY 2008 increased throughout the world. It reached 77.45 billion tons overall (an increase of 4.3% when compared with that of the previous year) and a new maximum was recorded. The marine trading volume of our country was 9.7009 billion (an increase of 0.6% when compared with that of the previous year).

Due to the strong demand for iron ore, coal, etc. in the 1st half of the year, the overseas marine transportation market became very active and led the increase in marine freight flow in Asia and the sharp rise of irregular shipment markets, etc. However, affected by the global recession caused by the American financial crisis in the latter part of September, the marine transportation market grew rapidly worse because of the decrease in demand for resources, from developing countries and sluggish freight flows.



2) Domestic passenger ship business

Regarding the domestic passenger ship business, the number of business operators as of the 1st of April 2009 was 970 (an increase of 1 when compared with that of the previous year) and the number of passengers in FY 2007 was 1.0079 billion (an increase of 1.7% when compared with that of the previous year). On the other hand, in FY 2008, due to the economic recession and other reasons, the severe business conditions remain. Withdrawals are coming one after another because of the decrease in frequency due to the great decrease in transportation volume, especially for the ferry business, which is expected to act as a participant in the modal shift. Therefore, the support for invigoration is being provided through competitiveness reinforcement and convenience improvement by uplifting the attractiveness of cruises, cooperating with the tourism industry and economizing energy, etc.

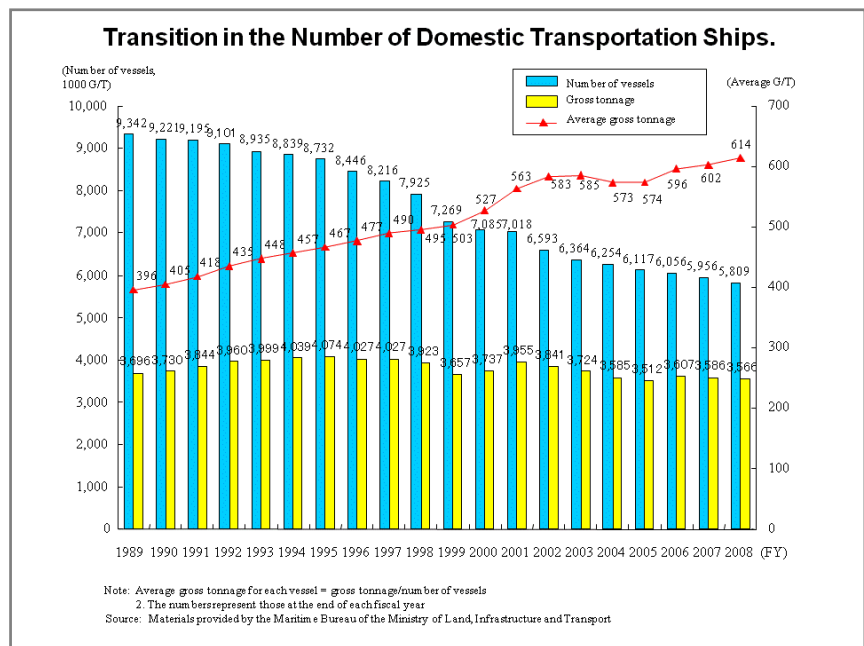


3) Domestic marine transportation

Domestic marine transportation is not only high in economic efficiency but also excellent in environment conservation. It shoulders 40% of domestic logistics and 80% of essential industrial material transportation. It is also the key transportation service for supporting our country's economy and citizens' daily lives.

At present, due to the demand for further improvement for reinforcing industrial competitiveness and measures for deepening earth environment problems, it is necessary to steadily provide efficient, high dependency and high quality transportation services.

However, recently, in addition to the deterioration of business conditions due to the rapid jump in the petroleum price, the Japanese economy is also in rapid recession. Freight transportation volume is greatly decreasing and there are concerns over business deterioration due to excessive ship spaces and a slowdown of new ship construction for replacing old ships. In order to cope with the situation, support is being provided for the replacement of construction contributing to environmental functionality enhancement by utilizing the common construction system. At the same time, the project on disposal of old ships for domestic transportation was established in FY 2009 and support was provided for pushing forward construction of old ship replacements. Moreover, support is also being provided to grouping measures for improving the industrial structure and the smooth and steady implementation of the project on temporary measures on domestic marine transportation¹.



4) Port transportation business

The port transportation business is playing an important role as a hub for land and marine transportation. From the viewpoint of enhancing business efficiency and providing diversified services, the "Port Transportation Act" was revised. For the 9 major ports and other ports, from November 2000 and May 2006 respectively, business participation was changed from a license basis to permission basis and the fare/charge was changed from an approval basis to a reporting basis in order to relax regulations (As of 1st April 2009, the number of new permissions, changes of business scope and fare/charge reports were 25, 170 and 654 respectively).

¹ The project of resolving the reserved ship capacity adjustment business by the scrap-and-build method, scrapping reserved ships, granting a definite subsidy to whoever performs the clearance and levying the payment from the ship builder.

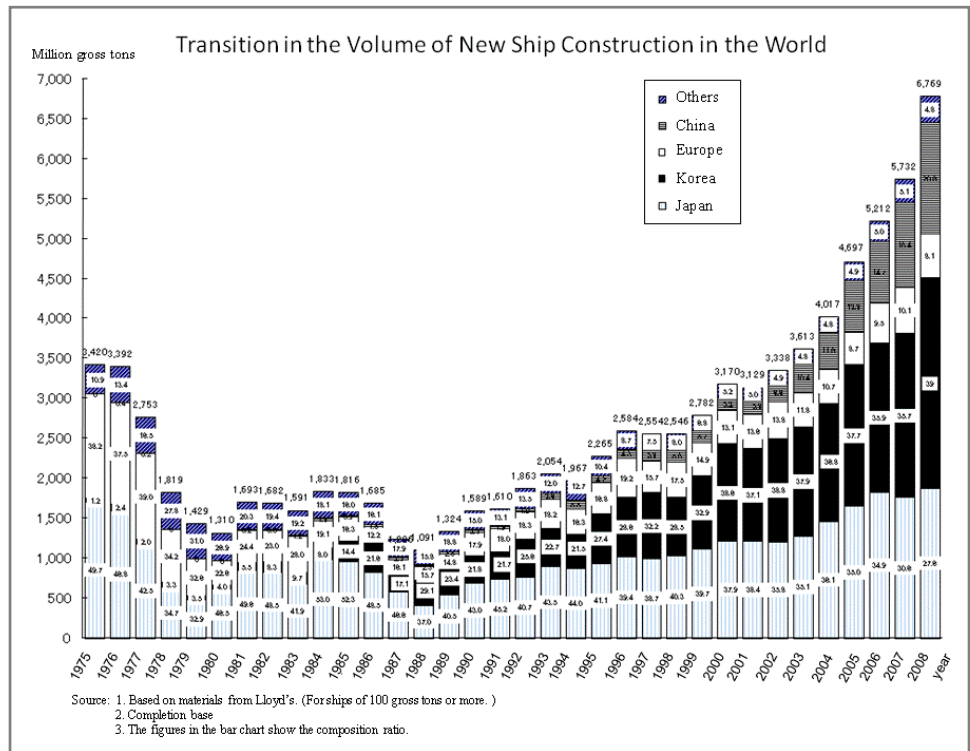
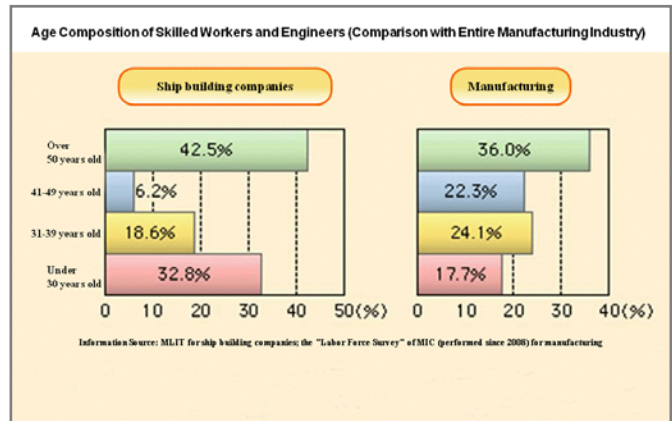
(3) Shipbuilding industry and ship machinery industry

1) Measures for reinforcement of the international competitiveness of the shipbuilding industry

Due to the increase of seaborne trade accompanying the thriving global economy, until the autumn of 2008, the amount of newly built ships in 2008 was 67.69 million tons (the amount of new ship construction in our country was 1,866 million tons, 27.6% of the global amount) and the maximum was recorded continuously from 2007. However, after the autumn of 2008, the orders for new ship construction fell sharply because of the slowdown of the global economy. Moreover, the shipbuilding industry in our country had a healthy order book and was comparatively stable, but the future of the global shipbuilding market is becoming unclear.

Additionally, the medium-sized and small shipbuilding industry that provides ships for domestic marine transportation contributes to regional economic development and employment creation through deep-rooted production activities in each region of the country. The demand for ships for domestic transportation has been recovering since 2002, but the number of orders has been falling as sharply as the global shipbuilding market after the autumn of 2008 and the business base is becoming extremely weak.

The shipbuilding industry in our country has been maintaining a local production system and has been maintaining a share of the amount of new ship construction in the world's top level through the past 50 years. However, because of the



intensification of international competition due to the rapid expansion of the construction capabilities of South Korea and China and concerns over the high levels of retirement of skilled workers who sustain the shipbuilding skills and technologies of our country, the severity of the business environment is worsening. Furthermore, it is necessary to prepare corresponding measures towards increasing social awareness on the environment and security.

As a result of these circumstances, in order to differentiate from the other competing countries in terms of technological ability, different measures are being worked out with regard to social requests such as earth environment conservation and energy saving. Measures include support for training skilled workers and technicians who shoulder the shipbuilding industry and international cooperation for substantial development of the shipbuilding industry through places such as the Council Working Party on Shipbuilding in the Organization for Economic Cooperation and Development (OECD).

2) Measures for invigorating the shipping industry

Concerning the shipping industry, reflecting the recent great demand for newly built ships, the production quantity of shipping products in our country in 2008 was 1 trillion and 3,651 billion yen (an increase of 4.9% when compared with that of 2007); while the export amount was 4,240 billion yen (an increase of ~12%). Both of these figures are significant increases.

However, as a result of the drop in newly built ship orders due to the slowdown of the global economy, intensification of international competition, the aging of workers, the conditions of the shipping industry will be much more severe. Moreover, the social demand for the security and conditions of the shipping industry, such as regulation reinforcement of exhaust gases from ships, is increasing. Therefore, in order to strengthen the foundation of the shipping industry and the international competitiveness of our country, the improvement of technology and productivity by strengthening cooperation with the shipbuilding industry, the utilization of various support measures and the inter-country agreement on imitative product policy, etc., are being worked out.

3) Development and practical use of marine industrial technology

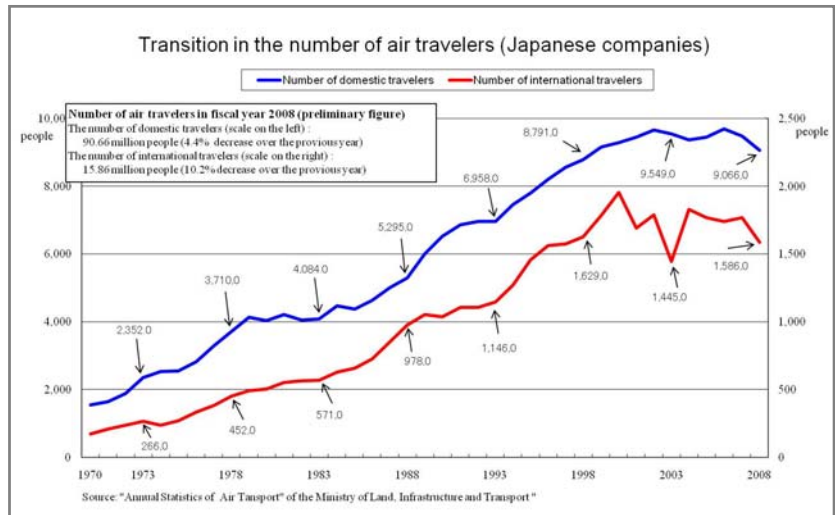
As one of the world's leading shipbuilding and maritime countries, Japan is continuing active research and development for providing ships that are excellent in security and environmental functionality. In particular, the discussion of the framework for CO₂ reduction in the international marine industry is in progress, so the world pioneering development of a standard indicator for enabling the evaluation of CO₂ emission levels from individual ships during the planning and construction stage by utilizing shipbuilding and marine technology is being carried out. Moreover, the development of environmentally-friendly shipping engines is being worked out.

In addition, in the "Basic Plan on Ocean Policy (FY 2008-FY 2012)" formulated based on the "Basic Act on Ocean Policy", the promotion of marine industry and the reinforcement of international competitiveness were cited. In order to realize these goals, the development of open-sea platform technology¹, which is a basic technology for the utilization of ocean spaces and natural energy in the exclusive economic waters of our country, is being pushed forward.

4. Trends and Measures of the Aviation Industry

Regarding the transportation achievements of our country's airline enterprises in FY 2008, affected by the price jumping of petroleum and the global economic recession after the autumn of the same year, the number of domestic tourists has been decreasing for 2 consecutive years to 90.66 million (a decrease of ~4.4% when compared with that of the previous year) and the number of international tourists decreased greatly to 15.86 millions (a decrease of ~10.2% when compared with that of the previous year).

Affected by the new subtype of influenza in early 2009, the airline business has been suffering from a rapid fall in demand. On 19th January 2010, Japan Airlines carried out its application for support from the Enterprise Turnaround Initiative Corporation of Japan and filed an application applicable to the Corporate Reorganization Act to the court. Under the comprehensive support provided by the Enterprise Turnaround Initiative Corporation of Japan, Japan Airlines is ensuring transparency and fairness through court involvement and is drawing out a definite revitalization plan from the standpoint of citizens at the same time. As Japan Airlines plays an important role in the air network of our country, the government is also providing necessary support until Japan Airlines accomplishes its recovery.



5. Trends and Measures of the Freight Forwarding Industry

The freight forwarding industry² is contributing to pushing forward the modal shift for environmental burden reduction and the number of new participants in the business is increasing steadily.

In FY 2009, other than the measures for the construction of an efficient freight transportation system between Narita and Haneda airports, the measures for rectification of railway transportation hindrances due to disasters is also being pushed forward. Moreover, in order to ensure the provision of a secure and reliable logistics service, the compliance of business operators is being enforced through inspections and cooperation enhancement between the business operators of freight forwarding transportation and freight transportation is underway.

6. Trends and Measures of the Warehouse Industry

Concerning commercial warehouses that play an important role as logistics centers, in order to work out corresponding measures for sophisticated and diverse safekeeping needs as well as the promotion of the efficiency enhancement of the logistics business, regulation relaxation was implemented in the form of changing the participation regulations to a registration basis etc. Afterward, the number of new participants in the warehouse business is increasing steadily. As of FY 2008, the number of warehouse business operators was 5,611 (an increase of 556 when compared with that of FY 2001).

Moreover, large-scale logistics facilities for renting logistics business operators were constructed through foreign investment and local real estate funds, and warehouse business operators who develop the business by renting those facilities, are emerging.

¹ Adopted as a major strategic science and technology in the 3rd Basic Plan on Science and Technology

² As the transporter of door-to-door inter-modal transportation from freight collection to delivery, the business provides freight transportation services by utilizing the transportation methods (freight vehicles, railways, airplanes, ships) of effective transportation business operators (transport by itself).

7. Trends and measures of the real estate industry

(1) The condition of the real estate industry

The real estate industry is an important industry in Japan, the number of companies of which making up 10.7% of the total number of corporations and the sales of which account for 2.5% of the total sales of the country.

In the apartment market for metropolitan areas, the inventory for apartments had been over 10,000 for 14 consecutive months until January 2009, but fell below 7,000 in the autumn of 2009 and the success rate of transactions has been increasing. Although there is some indication of these changes, the real estate market at large remains in severe condition.

Furthermore, the market for securitization of real estate had been declining since 2007; however, there was an upturn of the Tokyo Stock Exchange REIT Index in the early spring of 2009.

(2) Proper Administration of the Building Lots and Buildings Transaction Business Law

In order to protect consumer rights related to real estate transactions and to facilitate the distribution, we are working for a proper administration of the “Building Lots and Buildings Transaction Business Law” (referred to as “the Law”).

MLIT and prefectural governments have been cooperating with the related parties and have been making an effort to prevent complaints and disputes. Moreover, a grave administrative disposition has been imposed on those business operators who violate the Law. In FY 2008, 382 cases (176 for license revocation, 86 for business suspension and 120 for instruction) were subject to administrative dispositions

In addition, according to the “The Act for Execution of Defects Warranty Liability under the Housing Quality Assurance Act” enforced on 1st October 2009, real estate transaction operators are obliged to carry out financial assurance measures (by deposit or insurance) and to report to the administrative office when delivering the newly built house. MLIT is currently developing the measures for proper administration of the act.

In addition, the “Act on Prevention of the Transfer of Criminal Proceeds” was enacted to legislate against the transfer of illegally acquired money and to ensure the accurate implementation of the Convention for the Suppression of the Financing of Terrorism. According to the act, real estate transaction operators are obligated to confirm customer’s identity and report any suspicious transactions. In cooperation with industrial groups, measures for accurate actions towards the mentioned act are being pushed forward.

(3) Securing appropriate management of the apartments by condominium management business operators

In response to the increase in apartment stocks, “Act on Advancement of Proper Condominium Management,” implements the registration system of condominium management business operators and in business regulation to ensure appropriate management. In addition, condominium management business operators are subject to on-site audit to improve compliance with the law and to prevent illegal conducts.

(4) Revitalization of the real estate market

1) Current condition of the real estate market

According to the System of National Accounts, the total amount of assets of the real estate market in our country as of the end of 2008 was around 2,300 trillion yen, including real estates owned by corporations, individuals, the public sectors of the national/local governments. The accumulated amount of real estate securitized by Japan-REITs (Real Estate Investment Corporation established under the Act Concerning the Investment Trust and Investment Corporation), real estate specified joint enterprises established under the Real Estate Specified Joint Enterprises Act and special purpose companies was around 42 trillion yen at the end of FY 2007 and around 45 trillion yen at the end of FY 2008. Concerning the yearly achievement of securitization of real estate that had been expanding, a maximum of around 8.9 trillion yen was recorded in FY 2007, but it declined considerably to around 3.1 trillion yen in FY 2008.

Japan-REITs are contributing greatly to the urban development of our country by enhancing the value of real estate with its property acquisition and the renovation for earthquake resistance and so forth utilizing its abundant funds. As of the end of March 2010, 38 Investment Corporations were listed and approximately 9.72 million investment units, which amount to around 2.9514 trillion yen, were outstanding. Compared with a period from April to December of the previous year, the number of properties acquired by Japan-REITs has decreased by 67%. However, one of the Japan-REITs carried out a public offering on October 2009 for the first time in the past 15 months, and the move toward property acquisition has been increasing in line with the successive public offerings. Moreover, the Tokyo Stock Exchange REIT Index, which has been declining after 2007 (the lowest price was 704.46 as of 28th October 2008), is on track for recovery and was 948.90 at the end of March 2010.

2) Improvement of real estate market conditions

In order to ensure the transparency of the real estate market as well as facilitate and revitalize transactions, MLIT is carrying out the survey and publication of transaction prices. Initially in 2005, this survey was conducted in the ordinance-designated cities of the three major urban districts. Since then, the subject cities have expanded to nationwide cities. The information acquired from the survey, such as the location, area and price of the real estate, are released on the Internet called Information of Land Synthesis System¹ (as of January 2010, transactions released was 768,397 and the website received around one hundred million hits). The information provided on the website is edited to prevent disclosing information on specific property.

In addition, for the purpose of greater transparency and reliability of the real estate market, MLIT has been collecting information on the revenue and cost relating to the operation of rental properties, such as offices and apartments and provides it through a real estate market database on the Internet from FY 2008.

Modified information of real estate transaction price owned by Real Estate Information Network (REINS²) is also released through a real estate transaction information website³. Furthermore, the real estate industry is developing the real estate website (Real Estate Japan⁴) for providing detailed property information managed by real estate transaction operators to consumers, and MLIT has continuously been providing support.

3) Tax Incentive

Taxation revision of FY 2010 approved the extension to applicable subject of the special measures concerning real estate acquisition tax for non-residential houses and for registration and licensing tax for Japan-REITs and special purpose companies.⁵

4) Utilization of the leasehold term for business use

In order to respond to the diversification of land use as socio-economic environment evolves, the Act of Land and Building Lease was revised to extend the maximum length of leasehold for business use from 20 years to 50 years.

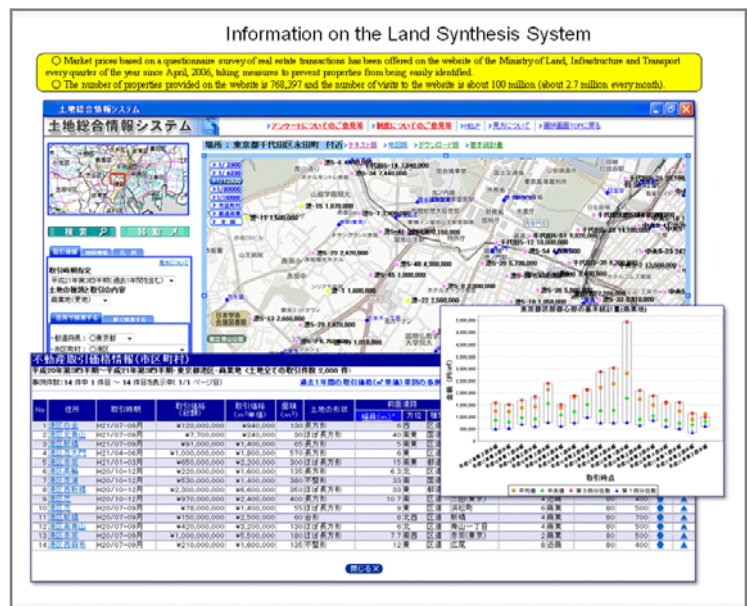
5) Aiming to create the real estate market for a new age

Based on the Report of the Real Estate Valuation Board (constituted under the National Land Council) in March 2009, valuation procedures were unified (such as the General Guideline for Real Estate Appraisers on Determination of Purpose and Scope of Valuation and Contents of Report) to improve valuation quality and reliability. Moreover, on-site audits are conducted at real estate appraisal firms are being carried out on the valuations of the securitized real estate.

In July 2009, the “Forum for Building Up the Real Estate Investment Market that is trusted by Investors”, comprised of related industries, professionals and administrative agency, made proposals for real estate investment market revitalization. The proposal was mainly made toward Japan REITs, identifying the necessity to reorganize Japan REITs through mergers and other measures and, to reinforce the governance on Japan REITs, the finance of Japan REITs and promotion of real estate investment by retail investors, pension funds and other investors. From February to March 2010, three Japan REITs consolidations were performed.

Through organizing a training course on real estate securitization and providing advisory support to business operators, liquidation of land and regional revitalization were promoted through accumulation of the knowledge of the *how-to* relating securitization, development of human resources in rural area and expansion of the regional real estate securitization market.

As the real estate field plays an important role in addressing the environmental problems, MLIT is now discussing the framework on how to assess the economic value of the real estate from the environmental aspect while considering international trends on responsible real estate investment, which takes ESG (Environment, Society, Governance) into account when making investment decisions.



¹ <http://www.land.mlit.go.jp/webland/>

² A measure for residential building business operators to register property information to designate information network organization and to exchange information among business operators

³ <http://www.contract.reins.or.jp/>

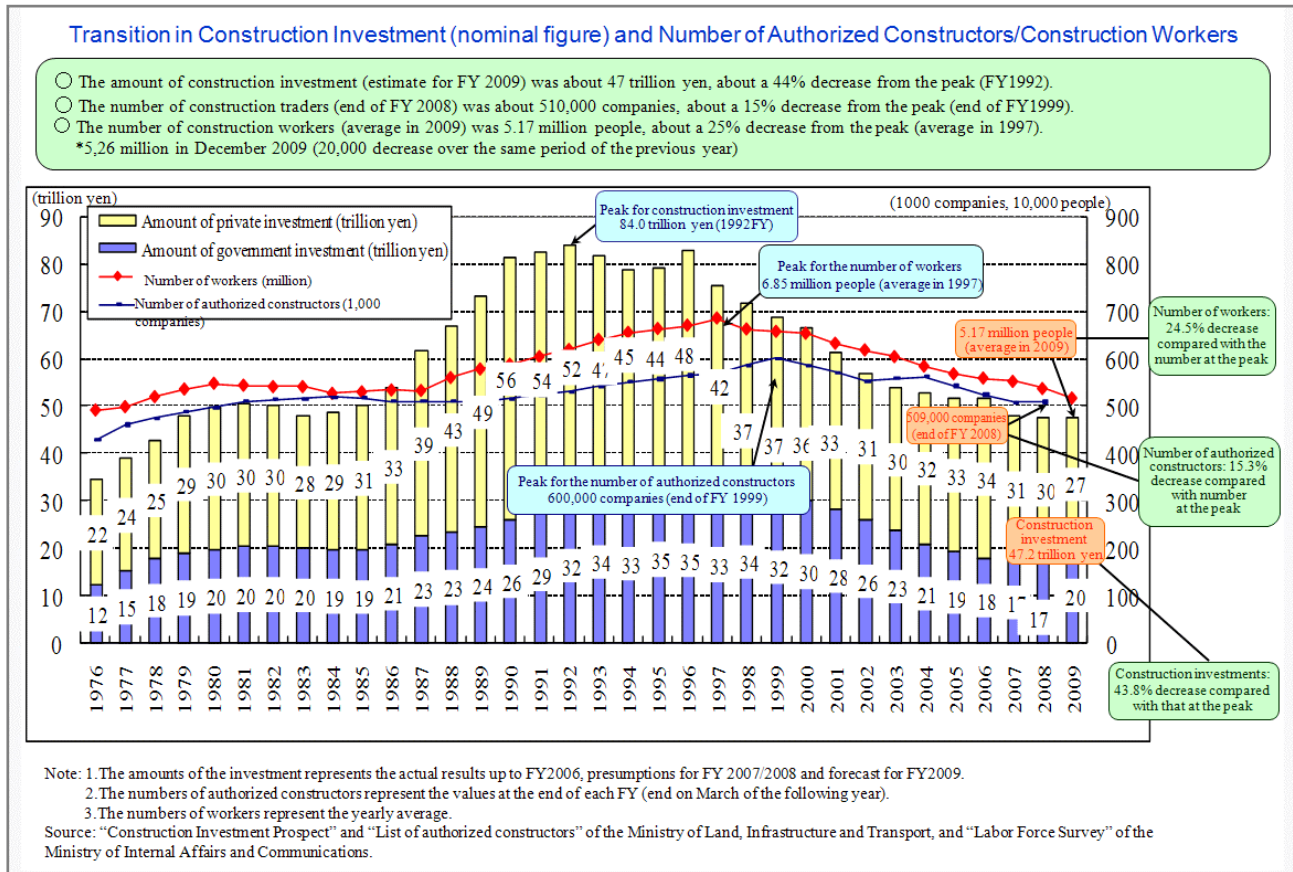
⁴ <http://www.fudousan.or.jp/>

⁵ Special measures on real estate acquisition tax related to non-residential houses were extended until and will be repealed on 31st March 2012.

8. Rejuvenating the Construction Industry

(1) Current conditions of the construction industry

The construction industry is playing a role in shouldering regional economic society, including the development of infrastructure indispensable for citizens' lives and contingency planning for disasters. Furthermore, it is also one of Japan's key industries, accounting for 10% of gross domestic product and the total number of employees. However, facing the issue of a rapid decline in private construction investment and intensified price competition as well as the constraints of population decrease, the aging population with a low birth rate and the severe financial circumstances, new public affairs have had to be suspended. The circumstances of the construction industry are more severe than ever.



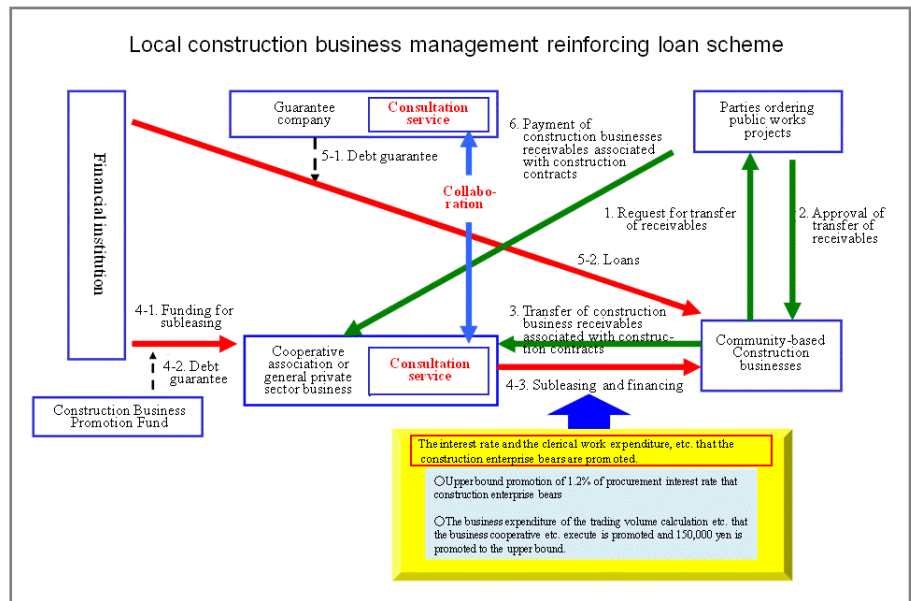
(2) Securing a fair competition platform

In light of the rapid decrease in construction investment, only "enterprises with excellent technological ability, implementation and management power" can subsist. In order to realize competition for growth, it is important to secure a fair competition platform starting from the thorough observance of the law by construction business operators. Therefore, investigation into the actual conditions for bidding transactions and site visits have been carried out from the past and fair transactions between tendering and bidding parties in the construction industry are being worked out. Additionally, the "Center for Fair Construction Industry Transaction" was established in July 2009 and acts as a discussion platform for troubles and complaints regarding construction contracts. The measures for realizing further thorough observance of the law are also being pushed forward.

(3) Facilitating fund raising

In order to facilitate fund raising for construction enterprises, the Regional Construction Business Reinforcement and Financing System was established and has been implemented from November 2008. The content states the promotion of mobilization and construction contracts claiming rights towards public construction owners by the tendering of construction enterprises, including the incomplete parts.

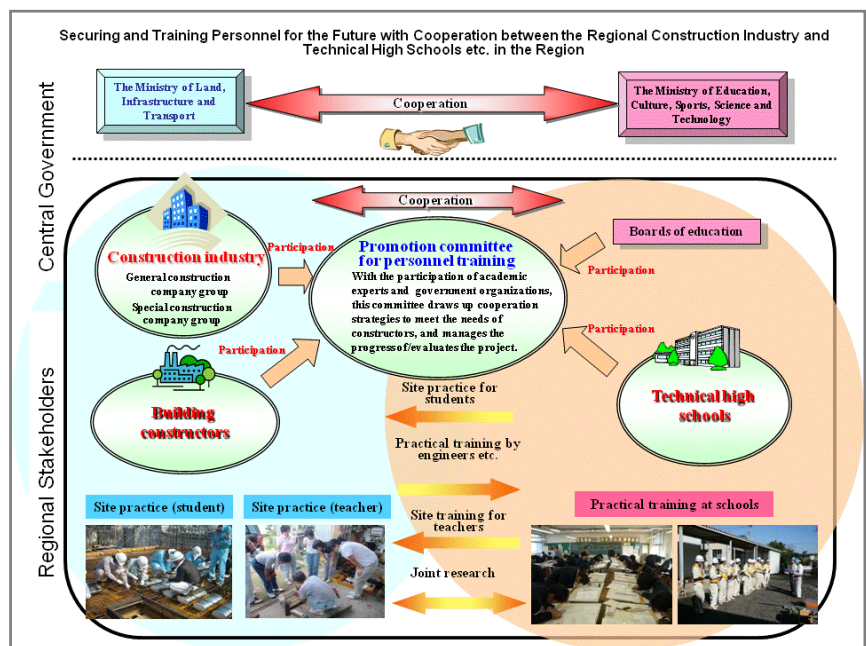
This system enables tendering enterprises to receive finance under the guarantee of public construction contracts claiming rights according to the productivity of business cooperatives or private business operators. It is also a system that enables funding to be received from financial institutions even for the exceeding part of construction productivity through the guarantee of surety corporations and the lessening of the burdens, such as interest, of the tendering construction enterprises.



(4) Promotion of “people production” supporting the production industry

The success of the construction industry depends on how well the technicians perform their abilities and it is an industry supported by “people”. However, the employment environment for workers of the construction industry is severe. In order to smoothly push forward the inheritance of construction technologies and skills in the context of the increased aging of the workforce, it is essential to develop a working environment with fair evaluations for securing and training the excellent personnel who shoulder the future as well as for the workers of the construction industry.

Therefore, support is provided in the form of measures for practical coaching for students by construction technicians, carried out through the cooperation between the regional construction industry and technical high schools; and measures contributing to construction skill inheritance by construction organizations and securing/training construction workers. Their achievements are being popularized.



Furthermore, among the technicians who work on direct production activities on construction sites, the securing, training and utilization of registered key technicians, who possess skills for operation management and coordination and perform key duties, are being pushed forward. The number of registered key technicians was 15,086 (23 position types) as of the end of September 2009 and their utilization in the comprehensive evaluation bidding method is being considered.

(5) Promotion of the construction industry

The regional groups of small-sized and medium core construction business operators utilized their existing personnel, machinery and materials, and know-how to form a committee by cooperating with different types of industries, such as farming, forestry, tourism, environment, welfare, etc., and autonomous bodies. For planning the revitalization of the construction industry, employment maintenance/expansion and regional invigoration, they also established a construction business for subsidizing the necessary costs of cooperative work related review, trial implementations and businesses supporting regional revitalization. Up to now, 157 businesses have been selected and are being pushed forward. Moreover, the matching of

technology/business ideas of universities/different industries and construction enterprises is being carried out. New business development supporting construction industries and supporting businesses for promotion of cooperation in different fields is being implemented.

Furthermore, in order to further facilitate new business development and management reform as well as measures for strengthening the business base, a one-stop service center is established in each prefecture for providing unitary services related to construction business operators and is being supported by cooperation with the related ministries and government offices. Especially in relation to development of the construction industry, the enhancement of a consulting system is in progress, such as by increasing consultation meetings with the consultants of small-sized and medium enterprises.

In addition, in order to strengthen management and implementation capabilities by securing continuous cooperative relationships between small-sized and medium core construction business operators, the appropriate utilization of Joint Ventures of Regular Construction is being promoted. Also, systemization of the small-sized and medium core construction business operators as well as business cooperation are being pushed forward. The invigoration of common businesses by business cooperatives¹ and business reform activities is also being promoted.

Besides, while construction investment is decreasing, construction-related industries (building surveyors, construction consultants, geological surveyors, etc.) are exploring the participation of appropriate competitive markets and expanding the new business scope so as to develop themselves as intellectual industries for working out the quality assurance of business achievements and to make themselves a source of technology and personnel. MLIT is also working towards the substantial development and growth of superior construction-related industries through the appropriate utilization of the registration system for construction-related industries.

(6) Current situation concerning construction machinery and development of the construction industry

In FY 2007, the estimated number of construction machinery owned in our country was around 920,000². From the figure for purchased construction machinery in different buyer categories, the share of lease/rental businesses was higher than that of construction businesses, which was 58% and 17% respectively. Additionally, in order to secure the level of technological ability for technicians in the construction industry, there is the qualification system called Certificated Technician of Construction Machinery Manipulation that was established based on the “Construction Business Act”. Up to FY 2009, the total number of persons who obtained the Level-1/Level-2 Certificates was 170,000.

In the case of fatal accidents in the construction industry, the percentage of accidents caused by construction machinery was 14% of the total. Recently, the causes of accidents³ are changing because of the technological advancement of construction machinery. Therefore, the Guidelines for the Safety and Technology of Construction Machinery Manipulation were revised and the Safety Manual for Construction Machinery Manipulation was formulated. The safety measures for construction machinery manipulation are also being pushed forward.

Furthermore, for the purpose of resolving various issues (low productivity, lack of skillful workers, construction quality assurance, etc.) in the construction industry, promotion of the popularization of informative construction, which is an innovative construction skill utilizing ICT, is under way. Therefore, the “Promotion Strategy for Informative Construction” was formulated in July 2008. Existing popular issues are being taken into environment development between the parties receiving and placing the order, such as the formulation of construction management standards and the standardization of design data.

(7) Handling disputes in construction projects

In order to quickly settle disputes concerning construction contracts, dispute settling procedures are being carried out in the Construction Dispute Council. The application results of the Central Construction Dispute Council in FY 2009 and the Prefectural Construction Dispute Council in FY 2008 was 68 (the number of arbitration, intercession and mediation cases was 11, 51 and 6 respectively) and 131 (the number of arbitration, intercession and mediation cases was 21, 83 and 27 respectively) respectively.

¹ The number of business cooperatives of construction industry, cooperative associations and enterprise association is 4,766, 38 and 144 respectively.

² Major types of machinery – the number of hydraulic shovels is around 682,000, the number of wheel-typed tractor shovels is around 159,000, the number of bulldozers is around 53,000

³ Accidents caused by changes in balance due to the miniaturization of construction machinery (such as the mini-backhoe for small and narrow sites) or inappropriate use of auxiliary devices (such as obstacle-detecting devices)

Chapter 6: Building a Safe and Peaceful Society

Section 1 – Realizing a Universal Society

1. Realization of barrier-free features based on the concept of universal design

With the mindset of universal design of “free and easy access everywhere and for everybody”, the measures in both hard and soft aspects are being enhanced and the realization of a universal society is being worked out based on the “Act on Promotion of Smooth Transportation, etc. of Elderly Persons, Disabled Persons, etc.” Measures include the construction of barrier-free public transport and buildings, the construction of unified and continuous barrier-free routes between facilities, the promotion of barrier-free hearts, and introduction of rapid enhancement aiming for gradual development through the participation of senior citizens and disabled persons, etc.

(1) Construction of barrier-free public transport

The new barrier-free act obligates conformity to transportation smoothing standards for building new passenger facilities, large-scale reformation and new introduction of trains; and to bear the duty of endeavoring to conform to the same standards for existing facilities. At the same time, unified barrier-free enhancement suiting the basic concept formulated by municipalities is being pushed forward. In addition, subsidies for the construction of elevators in railway stations, the introduction of low-floor trains (LRV) for trams, and the non-step bus with standard specification approval are being implemented. Moreover, in order to further the promotion of citizens' understanding and cooperation towards senior citizens and disabled persons, i.e. “barrier-free hearts”, soft measures are also being pushed forward actively, such as “barrier-free classes” for experiencing to assist the senior citizens and disabled persons or experiencing what they are undergoing.

Incorporation of barrier-free features into public transport facilities			
As of March 31, 2008			
○ Passenger facilities used by more than 5,000 passengers a day			
	Total number of facilities	Facilities meeting the smooth transportation standards in terms of elimination of differences in floor levels *1	Percentage of total
Railway stations	2,816	2,007	71.3%
Bus stops	43	36	83.7%
Passenger ship terminals	8	7	87.5%
Airport passenger facilities	21	19	90.5%
			(100%)*2
Note1: “The elimination of differences in floor levels” has been evaluated in terms of compliance with Article 4 of the standard concerning the promotion of smooth transportation by public transport pursuant to the New barrier-free Act (including the width of passages, slopes, and the installation of elevators and escalators)			
Note2: Airport passenger facilities have already met all the standards in terms of slopes, and the installation of elevators and escalators for the handicapped, as of the end of March 2001.			
○ Vehicles			
	Total number of vehicles, ships, and aircraft	Number of vehicles, ships and aircraft meeting the smooth transportation standards*	Percentage of total
Railway vehicle	52,225	21,570	41.3%
Bus	59,973		
Low-floor bus		25,038	41.7%
Non-step bus		13,822	23.0%
Welfare taxivehicle	-	10,742	-
Passenger ship	906	149	16.4%
Aircraft	507	326	64.3%
Note: *The number of vehicles, ships and aircraft meeting the smooth transportation standards* has been evaluated in terms of compliance with the standard concerning the promotion of smooth transportation by public transport.			
Source: Ministry of Land, Infrastructure, Transport and Tourism			

(2) Construction of barrier-free living environments

1) Construction of barrier-free residential buildings

Support is being provided for the acquisition and reform of barrier-free housing concerning self-help and care for senior citizens and disabled persons. On top of this, public rental housing is being constructed with barrier-free standard specifications. At the same time, support is being provided to promote the supply of superior rental housing designed by private corporations for senior citizens in order to build a secure, safe and comfortable regional living environment for senior citizens and disabled persons.

Moreover, in the case of building something above a certain scale in buildings that are used by the unspecified general public or mainly senior citizens and disabled persons, the new barrier-free act obligates barrier-free construction. Also, tax exemption for approved and specified buildings complying with the prescribed standards as well as support measures such as subsidies are being implemented. Moreover, for government facilities, the development of high-level barrier-free office buildings and the barrier-free enhancement of existing office buildings are being carried out.

2) Construction of barrier-free walking spaces

Actual authorization results of construction plans for designated buildings etc. based on the "New Barrier-free Act"															
Fiscal year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number of authorizations (fiscal year)	11	120	229	320	382	366	332	232	280	367	386	348	331	289	255
Number of authorizations (cumulative figure)	11	131	360	680	1,062	1,428	1,760	1,992	2,272	2,639	3,025	3,373	3,704	3,993	4,248

Source: Ministry of Land, Infrastructure, Transport and Tourism

Based on the New Barrier-free Act, in order to build roads connecting stations, government facilities and hospitals for everybody to use, especially for senior citizens and disabled persons, the construction of barrier-free walking spaces is being pushed forward, including the construction of wider pavements, the resolution of pavement bumps, inclination improvement, the construction of elevators for multi-dimensional road-crossing facilities, etc.

3) Construction of barrier-free urban parks, etc.

According to the obligations stipulated in the New Barrier-free Act and the subsidy system, the bump resolution of the entrance and roads in the parks as well as the construction of facilities such as toilets that are easily usable by senior citizens and disabled persons are being carried out. The development of urban parks is continuing for enabling senior citizens and disabled persons to use parks securely and safely. Furthermore, the enhancement of slopes and handrails is being pushed forward for building closed natural spaces, such as rivers and harbors, which everyone can enjoy.



2. Development of the parenting environment for a society with few children

(1) Support on the compatibility of work with child care

1) Support on securing housing suits for newly married couples and parenting families

At the same time as pushing forward the rental housing supply to families, support is being provided on acquiring quality home suits for newly married couples and parenting families through housing loans utilizing securitization business of Japan Housing Finance Agency. Additionally, for public rental housing, the combined construction of childcare facilities such as day nurseries is being pushed forward. In addition, measures are being taken in order for business operators to offer higher priority of home acquisition to parenting families. Furthermore, the development of conditions for quality housing supply and residential urban districts is being carried out for realizing urban life that is close to workplaces and is easy for childcare.

2) Promotion of Tele-work

Tele-work is a flexible form of working that utilizes information communication devices and is not limited by place and time. It is expected to have the effect of a reduction of commuting burdens by shortening the distance between workplace and home, the realization of balance between work and family (work life balance) and the assurance of business continuity during disasters.

According to the government's "Action Plan on doubling the Tele-work Population", MLIT organized seminars for working out the popularization and promotion of enterprise Tele-work as well as carrying out investigation about the actual situation of the Tele-work population and facilities distribution, functionalities and equipment that enables Tele-work in the metropolitan area.

3) Promotion of childcare supporting transportation

To cope with the demand of child-care supporting transportation services between home and day nurseries or schools by taxi, from the viewpoint of ensuring the security of traveling to/from the school, the guidebook on service manner for taxi drivers, who provide a child-care supporting transportation service, was published.

(2) Development of environment for children to grow up freely and safely

In order to ensure the security and safeness of park users, especially children, the publication of the "Guidelines for Pool Safety Standards" and the "Guidelines for Safety of Playground Equipment in City Parks (revised version)" to all facility administrators was carried out. At the same time, the "Urgent Comprehensive Support Project on the security and safety of city parks" was established in FY 2009 to provide local government with intensive support on security and safety measures for park facilities.

3. Measures for an aging society

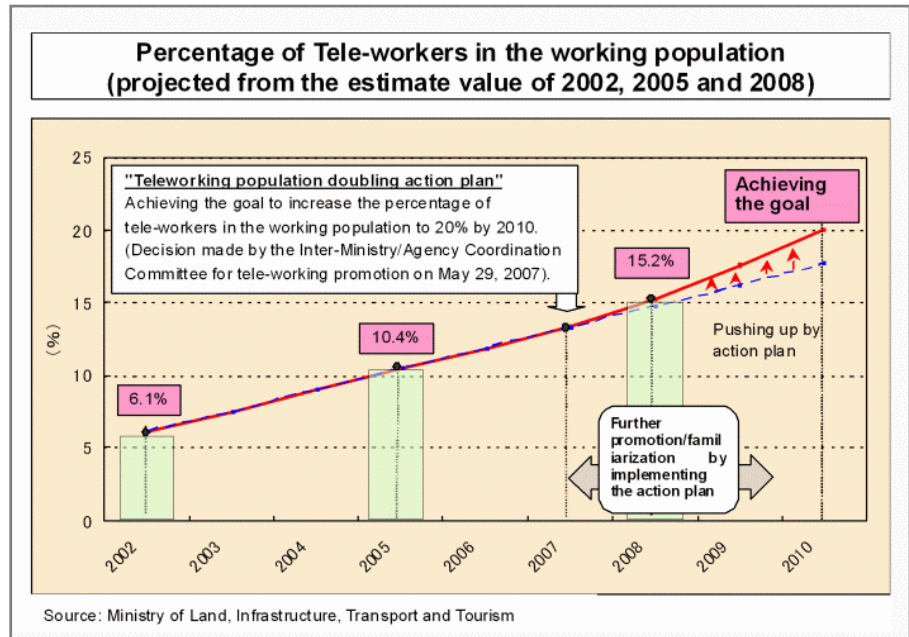
(1) Development of secure living environments for senior citizens

Based on the "Act on Securing Stable Supply of Housing for the Elderly", the administered quantity of quality senior citizen rental housing was 32,634 units at the end of March 2009. The registered rental housing that was not rejected by senior citizens was 153,745 units (including 29,766 units of rental housing for the exclusive use of senior citizens) at the end of March 2009. In addition, the Service Housing Project is being implemented in 858 housing estates (22,985 units) by the end of FY 2008. The project provides a barrier-free public rental housing supply and daily life consultation and emergency services through life support advisors. Moreover, the urgent promotion project of living stabilization for senior citizens was established in FY 2009 and it has been providing support for public rental housing and the unified development of welfare facilities as well as leading measures concerning housing for senior citizens. In addition, public rental housing estates have been redeveloped into regional welfare strongholds. Furthermore, support utilizing public rental housing is being provided on developing new living style with the cooperation of grouping homes¹, welfare and nursing care.

Additionally, part of the above Act was revised in May 2009. Cooperating with the housing and welfare policies, the rental housing supply for senior citizens is being pushed forward in order to provide life support and nursing service.

(2) Provision of transportation for an aging society

In order to cope with the needs of regular visits to the hospital or medical facilities for senior citizens and disabled persons, the promotion of the introduction of welfare taxis² is underway. As of the end of FY 2008, the number of cars in service was 12,527. Moreover, according to the model project on welfare transportation popularization and promotion, support is being provided with the cooperation of regional public organizations to the specific regions that carry out measures including common car-allocating centers and the planned introduction of welfare vehicles. Moreover, according to the revised "Road



¹ Common living facilities for senior citizens and disabled persons to live independently in regional society

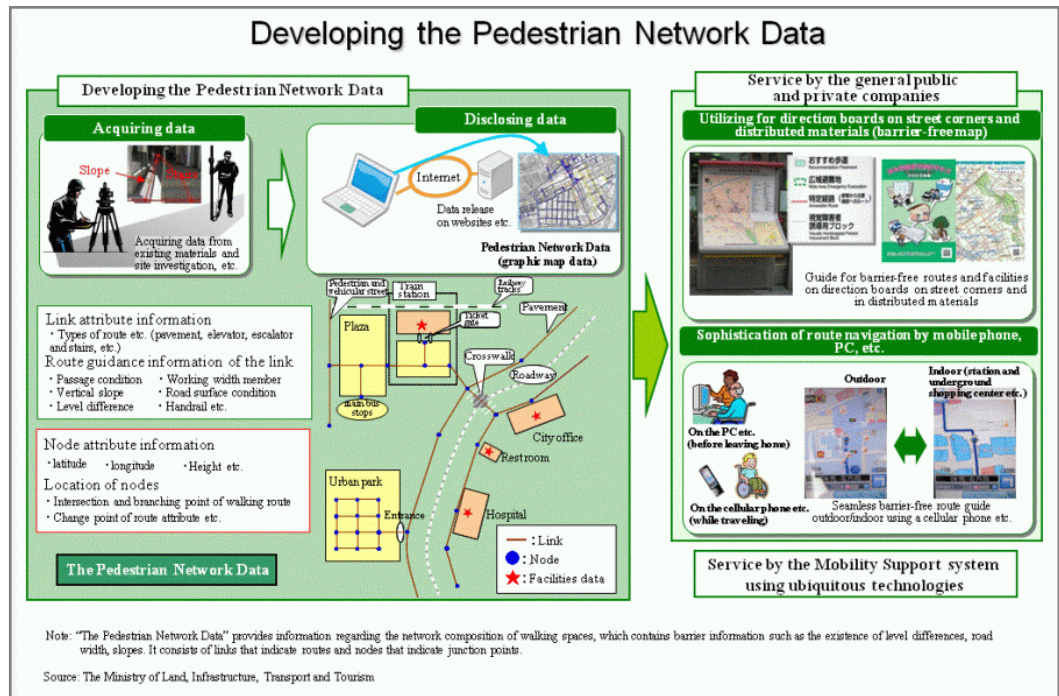
² Special taxis equipped with a lift for wheelchairs or stretchers to get on/off the car or taxis serviced by someone who has the necessary qualifications such as a visiting nurse.

Transportation Act”, in order to secure the necessary transportation for local people’s living, a registration system is being implemented for enabling transportation responsible for welfare and transportation for under-populated areas when it is difficult for bus and taxi business operators to fulfill the needs and the regional related parties agreed the necessity of self-use transportation. As of the end of FY 2008, this has been implemented in 2,384 organizations.

4. Promotion of the Mobility Support

Coping with an aging population and low birth-rate society, it is essential to collect and provide precise route information for the aged and the disabled as well as to build a barrier-free environment by both hard and soft measures, which enables them to go out and walk lively.

Since 2009, the “Promotion of the Mobility Support” projects have been implemented. The projects include collecting and providing the Pedestrian Network Data, that is, barrier information such as bumps, road width and slopes. Taking advantage of ubiquitous technologies, expansion and promotion of the Mobility Support services for people with mobility constraints is also underway.



Section 2 – Measures against Natural Disasters

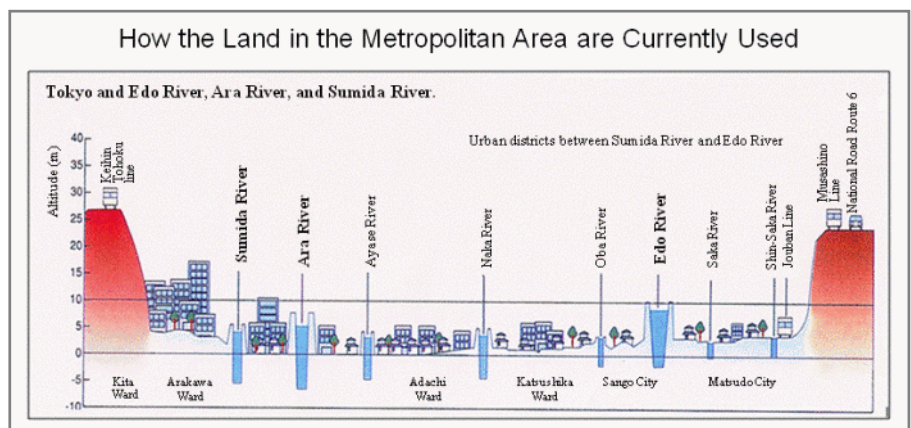
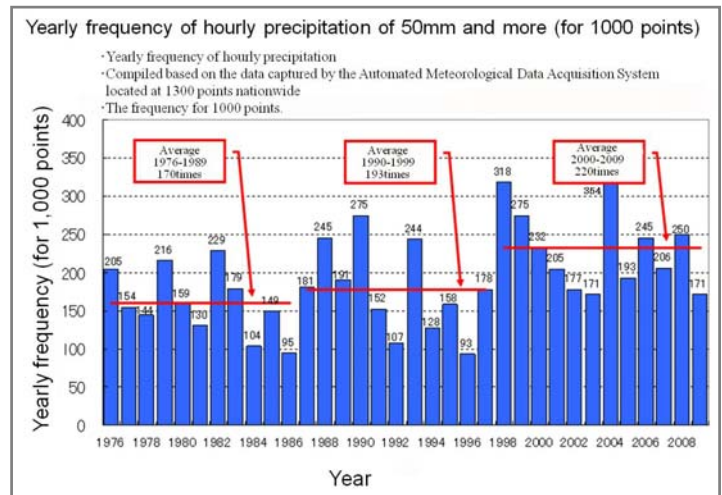
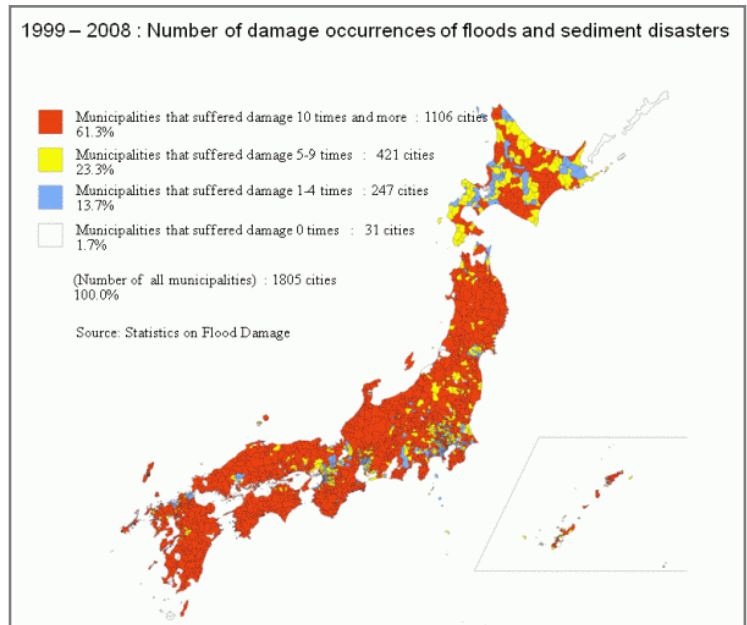
Because of its geophysical and climatological conditions, our country is subject to frequent natural disasters and suffers from damage of flooding and sediment disasters every year. Additionally, our country is located in an active region for earthquakes and volcanic eruptions and around 20% of the world's earthquakes (magnitude 6 or above) occur in and around Japan. Therefore, the protection of citizens' lives and properties from natural disasters is an important issue. Recently, accompanying the advance of urbanization and the aging problem, the importance of measures against natural disasters is increasingly high.

1. Building a strong and safe country against disasters

(1) Flood control measures

In our country, ~50% of the population and ~75% of properties are concentrated in ~10% of flood regions and the potential risk of floods has been extremely high. The flood control security level has been steadily increasing so far through the development of river course expansion, embankment and discharge channels and the development of dams and flood control basins for temporarily storing floodwater. However, the target security level and facility development are still low when compared with foreign developed countries.

Furthermore, for the past 30 years, the frequency of heavy rains recording over 50 mm rainfall per hour is increasing. In 2009, heavy rainfall occurred in July in Chugoku and Kyushu and Typhoon Etau (9th typhoon in 2009) brought over 100 mm rainfall per hour causing great damage in various regions. Therefore, together with the development of flood control facilities for preventing disasters, it is also important to work out damage reduction measures for minimizing damage and losses during disasters.



Damage from typhoon No.9 in the Sayo River in 2009



Overseas flood control safety

Country name	Safety level of flood control	Implementation rate
United States ^(Note1) (Downstream of the Mississippi River)	1/500	About 94%
United Kingdom ^(Note2) (The Thames River)	1/1,000	100%
Netherlands ^(Note3) Coastal areas including the center of the country	1/10,000	About 94%
Japan (the Ara River)	1/200	About 40%

Note: 1 • Sharing the Challenge : Floodplain Management into the 21st Century, Report of the Interagency Floodplain Management Review Committee to the Administration Floodplain Management Task Force, 1993
• Annual Report Fiscal Year 2005, Department of the Army

2 Management Guidance for the Thames Estuary, Thames Estuary Partnership

3 • Flood Risks and Safety in the Netherlands (Floris) Floris Study – Full report, 2005
• Water in Focus 2004 Annual report on water management in the Netherlands

1) Preventive flood control measures

Whenever flood disasters happen, much human life and property will be lost. It brings great consequences not only on the regional economic activities but also the time and cost for recovering and reconstructing disaster areas. Therefore, according to the fundamental river management policy and the river improvement plan, the planned flood control facility development is carried out, such as the construction of embankments, river course digging, flood control basins and underground reservoirs. Moreover, the existing facilities are being utilized effectively through redevelopment of existing dams and the reorganization of dam capacity. Moreover, for existing embankments, a regular examination is implemented for checking the safeness against the seepage failure during flooding and earthquakes. Improvement measures are being taken for if the strength of facilities is insufficient.

2) Measures for preventing the reoccurrence of flood disasters

In these few years, in order to avoid suffering from the floods of the same scale again, short-term intensive measures are being implemented in regions that have suffered from huge floods for eliminating the anxiety of flood occurrences. Measures include river course digging for increasing flow capacity, the embankment enhancement of rivers and the construction of drainage pump stations for preventing inland flood.

3) Measures for reducing damage during flooding

In order to push forward measures for minimizing damage during river flooding, various structural and non-structural measures are being worked out with the cooperation of regional public organizations. Measures include the development of circle levee and secondary embankments, the preparation of hazard maps, the sophistication of damage prevention information such as water level and flood forecasting.

4) Appropriate river management

For enabling the developed river management facilities to perform their functionalities during flooding, the conditions of rivers and facilities are monitored and the appropriate management is implemented according to the changes in conditions. Additionally, there will be an increase in decrepit dams or water gates and drainage pump station from now on, so the planned maintenance and renewal of facilities are being pushed forward according to the Maintenance Management Plan in order to lengthen the durable period of facilities.

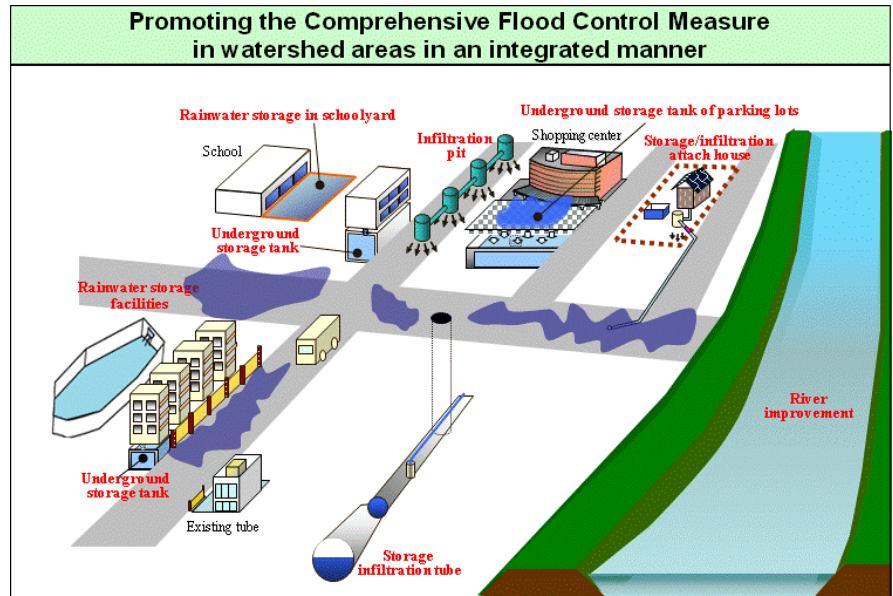
(2) Measures against floods in urban area

1) Promotion of comprehensive and common flood control measures in drainage pump stations

In order to prevent the suspension of urban functionalities and damage of underground shopping arcades during flooding in urban areas, river administrators, sewerage administrators and regional public organizations are cooperating to push forward measures against drainage basin flooding based on the “Specified Urban River Flooding Damage Countermeasures Act”.

2) Promotion of rainwater storage and infiltration

In order to reduce the flood damage of urban areas, other than rainwater clearance, it is also important to work on the storage and infiltration for controlling the rainwater outflow for the whole region. Therefore, through the project on supporting the development of a strong city against rainfall and river-basin storage and infiltration projects, the related regional parties are unified and pushing forward the control of rainwater outflow as well as private measures for reducing damage.



3) Measures against local downpours exceeding the planned for scale

Because of the reduction of penetrable rainwater amount due to urbanization, the recent frequent local downpours that greatly exceed the planned sewerage scale and the sophistication of land usage such as the construction of underground shopping arcades or basements, the damage risk of inland floods in urban areas is increasing. Therefore, the comprehensive project on the damage reduction of sewerage flood was established in FY 2009. The related parties were working together and pushing forward comprehensive flood measures including rainwater storage and infiltration facilities for outflow control, the preparation and publication of inland hazard maps, etc.

4) Prevention of destructive damage to major urban areas

For the major rivers including the Arakawa (Tokyo) and the Yodogawa (Osaka) accumulating high population-density and property-density along the river basin, various measures are being implemented including the development of high-standard embankments (super embankments) for avoiding destructive damage in cases where the embankment is ruined, and embankment enhancement by expanding the scale of the embankment.

(3) Flood control policy change

Japan is facing three demand constraints, namely, depopulation, declining birthrate and aging population, and severe financial conditions. Considering these constraints, "The Future Flood Management Advisory Board" was established in December 2009 to propel change in flood control policy. Board meetings have been held since then to set guidelines to develop flood control plans with a wide-range of measures, evaluation criteria and concepts for the overall assessment, thus establish and propose future flood control principles based on studies. An interim report, including new re-evaluation criteria for ongoing dam projects, is scheduled to be released in the summer of 2010 and individual dam construction plans will be reviewed based on this report. The Board will continue to deepen discussions on the future flood control principles to form a final report around the summer of 2011.

(4) Measures against sediment disasters

In our country, debris flow, landslides and slope failure caused by torrential downpours and earthquakes has been occurring around 1,000 times on average yearly for the past 10 years (2000 - 2009) and has been causing severe damage. In addition, the victims of sediment disasters accounts for a significant proportion of the victims of natural disasters. Therefore, structural and non-structural measures against landslides for reducing the number of victims of sediment disasters are being pushed forward. The measures include the development of sabo facilities in major spots that need special measures and the development of a secure and accurate Warning and Evacuation System through self-help, mutual assistance and public support.

1) Fundamental measures against sediment disasters

The river, which has left mountain areas in the headstreams, pours sand out and causes great damage throughout the river basin. In order to preserve national land and protect human lives from such sediment disasters, the development of sabo facilities is being pushed forward.

2) Emergency disaster prevention measures for regions susceptible to sediment disasters

Recently, measures are being pushed forward for preventing disasters from occurring again in regions susceptible to severe sediment disasters, through the intensive development of sabo facilities carried out in locations susceptible to sediment disaster and surrounding areas.

3) Measures for protecting endangered citizens from sediment disasters

For high risk areas in facilities related to endangered citizens from disasters, sediment disaster prevention facilities, such as sabo dams, are being developed intensively.

4) Measures against sediment disasters at the foot of mountains near cities

In order to increase the safety against sediment disasters in urban districts and create green urban environments, the formation of green belts on the slopes at the foot of mountains near urban districts is being pushed forward. In FY 2009, 19 districts including Rokko District (Hyogo Prefecture) implemented these measures.

5) Measures against sediment disasters in developed rural areas

In rural areas, measures are being pushed forward for reconstructing abandoned river basins so as to control the sand overflow from slopes and, the conservation of natural environments and animal diversification are in progress.

6) Promotion of Law related to Promotion of Measures for Sediment-related Disaster Prevention in a Restricted Area etc. due to Sediment-related Disaster

(A) Promotion of designation of Sediment-related Disaster Warning Area etc

Based on the “Law related to Promotion of Measures for Sediment-related Disaster Prevention in Restricted Areas etc. due to Sediment-related Disaster”, the Sediment-related Disaster Warning Areas that are in high risk of sediment disasters are designated and the Warning and Evacuation System of the corresponding areas is developed. At the same time, non-structural measures are being taken in the Special Sediment-related Disaster Warning Areas that are highly susceptible to enormous disasters. The measures include the restriction of special development actions and the restriction of building structures. Furthermore, the guidelines and case collection for warning and evacuation are shown and support is being provided to the development of the Warning and Evacuation System against sediment disasters in the municipalities.

(B) Pushing forward the relocation of risky housing

For risky housing near cliffs susceptible to collapses, relocation is being pushed forward through the utilization of the project on the relocation of risky housing near cliffs. In FY 2008, 40 units of risky housing were removed based on this system and 31 units for risky housing replacement were constructed.

Column – Sediment disaster-prevention measure for protecting the related facilities for those most vulnerable during disasters

On 22nd July 2009, a mud flood happened in Yamaguchi Prefecture causing the death of 7 people who stayed in a special elderly nursing home. The damage caused by the landslide disaster was devastating. Due to this incident, it is obvious that there is a necessity for further pushing forward the maintenance of facilities (e.g. facilities with those most vulnerable during disasters) that are the living places of people who will have difficulty escaping quickly; as well as strengthening the Warning and Evacuation System at the level of voluntary disaster prevention organizations.

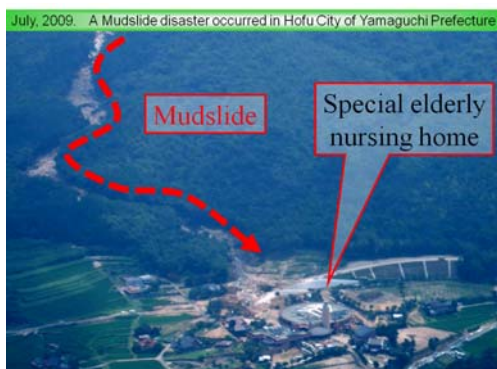
1. Implementation of quick measures against landslide disasters

On 31st March 2009, the ordinance of MLIT was revised. When there are large-scale natural disasters, each office is able to carry out urgent sabo works regardless of both the responsible duties of each office and the administrative districts. Regarding measures towards landslide disasters focused on Hofu City of Yamaguchi Prefecture, MLIT accepted requests from Yamaguchi Prefecture and the above revised regulation was applied for the first time; the MLIT disaster-related urgent sabo project was implemented.

2. Measures for risky facilities for those most vulnerable during sediment disaster

Although the landslide disaster measure for protecting related facilities for those most vulnerable during disasters have been implemented intensively until now, because of the landslide disaster that happened in Hofu City of Yamaguchi Prefecture, the general inspection of risky spots in the related facilities for those most vulnerable during disaster is being executed nationally, with the cooperation of local residents (facility administrators), municipalities and prefectures.

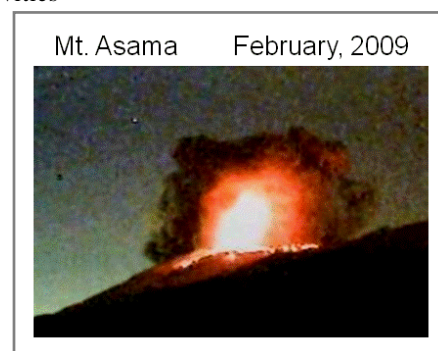
Based on the investigation results, the prefectures and the country carry out the development of sabo dams in spots that need special maintenance measures. At the same time, the local residents, municipalities and prefectures are cooperating and carrying out structural and non-structural measures that emphasize the “manifestation of risky districts”, “delivering accurate information” and “implementing disaster prevention training”, such as strengthening the practical Warning and Evacuation System.



(5) Preventive measures against volcanic landslides

1) Measures against sediment disasters induced by active volcanic activities

As a measure against wide-area and large-scale sediment disasters (e.g. volcanic mud-flow and mud-flood) induced by active volcanic activities (e.g. volcanic eruption), the development of sabo dams is being carried out. In Sakurajima, the continuous monitoring and observation as well as the stone removal of sabo dams are being implemented because there is a tendency for mud-flood occurrences due to the continuous active volcanic eruptions in 2009, though there has been little continuous rainfall since September. Additionally, medium-scale volcanic eruptions can happen anytime in Asamayama and investigations are taking place to be ready for smoothly performing the necessary urgent measures against the possibility of future active volcanic eruptions.



2) Formulating the preventive plan on emergency damage reduction measures against volcanic eruptions

In order to reduce the damage induced by sediment disasters during volcanic eruptions, the formulation of the plan on the emergency damage reduction measures against volcanic eruptions consisting of both structural and non-structural measures are being pushed forward. The measures include emergency structural measures implementation and the emergency measure of risky district setup through real-time hazard maps of each volcano with the cooperation of related organizations.

(6) Measures against tsunamis, tidal waves and erosion

1) Promotion of comprehensive measures against tsunamis and tidal waves

Influenced by the large-scale damage of the tsunami in the Indian Ocean and Hurricane Katrina in America, comprehensive hard and soft measures against tsunamis and tidal waves are being pushed forward. In FY 2009, according to the urgent project on the measures against decrepit coastal embankments, the examination of decrepit facilities, the formulation of the plan on measures against decrepit facilities and corresponding constructions based on the plan are being pushed forward comprehensively.

2) Measures against tidal waves

In February of 2008, influenced by flood damage due violent tidal waves in Toyama Prefecture, the inspection of the mechanism dealing with disaster and the review of the appropriate way of future measures are carried out. According to the opinions on measures against damage induced by tidal waves in both hard and soft aspects, the related measures are being pushed forward.

3) Promotion of measures against coastal erosion

Due to the reduction of sand supply and changes of the land stream flowing towards the coast caused by different structural constructions, coastal erosion occurs in different regions of the country. Especially in recent years, the erosion is progressing at a fast pace. Cooperating with different business operators of river, coast, harbor and fishing ports, the measures for removing the abnormal accumulation of sand as well as measures against costal erosion are being pushed forward.

4) Promotion of measures against tsunami for the ships in the port

The “Conference of measures against tsunami for ships” was established with a focus on the specified ports (84 ports) stated in the Act on Port Regulations. Under the cooperation of related organizations, the refinement of the measures against tsunamis for ships in these ports is being worked out.

(7) Measures against climatic change

As a result of global warming, a rise in temperature, an increase in the frequency of heavy rainfall and the strength of typhoons, and a rise in sea level are projected. Therefore, it is necessary to formulate appropriate measures for reducing the negative effects caused by flooding, landslide and storm surge disasters, regardless of the scale of mitigation measures that will be implemented over the coming 20-30 years. For flood control and port policies, the related organizations share responsibilities and aim for the development of a strong and sustainable society that is able to deal with disasters through the implementation of measures focused on regional development and risk management, in addition to preventive facility development from the long-term view.

(8) Measures against earthquakes

1) Seismic retrofitting and safety improvement of residential housing and buildings

Based on the revised “Act on Promotion of Seismic Retrofitting of Buildings”, the target ratio of the buildings that have undergone seismic retrofitting is prescribed in the national basic policy, which is to increase from the 75% recorded in 2003 to at least 90% by 2015. Moreover, the promotion of the reinforcement of instructions regarding buildings and planned seismic retrofitting is being worked out. In FY 2009, according to the secure residential housing/building stock formation project, support is being provided to various measures including an increase in the subsidiary rate towards the seismic retrofitting of residential housing/buildings, the assistance for projects that contribute to the system development for sustained measures of regional public organizations and the seismic retrofitting promotion of residential housing/buildings such as the 5-year

extension of the applicable period for the taxation scheme of seismic reinforcement for residential housing.

2) Promotion of seismic reinforcement in residential areas

In order to reduce the damage caused by slips or collapses in land development, the skill standard for newly developed residential areas is being strengthened according to the revised “Act on Regulation of Residential Land Development”. In addition, the necessary examination and the preventive construction for existing residential areas for designating disaster prevention districts for developed residential area are being implemented through projects on the promotion of the seismic reinforcement in residential areas.

3) Implementation of risk level judgment for residential housing/buildings and residential areas in disaster areas

For residential housing/buildings, in order to prevent secondary disasters such as building collapses caused by aftershocks, system development is being worked out with the cooperation of prefectures through business manual formulation and national communication training for the purpose of performing swift emergency risk level judgment after disasters. In order to prevent secondary disasters and assure the safety of residents in the residential area, system development is underway with the cooperation of the “Disaster Residential Area Risk Level Judgment Communication Council” formed by prefectures and ordinance-designated cities, such as by developing a business manual for enabling the implementation of speedy and precise risk level judgment after disasters.

4) Urgent development of dense urban districts

The immediate enhancement of dense urban districts is a critical issue in terms of disaster prevention and living environment. According to the 3rd Decision of the Urban Resuscitation Project and the Basic Plan for Housing, the risky dense urban districts (the major dense urban districts are around 2,000ha in Tokyo and Osaka; 8,000ha throughout the country), especially those highly susceptible to conflagration, are developed intensively and the minimum safety level is to be assured by FY 2011. In order to achieve targets, MLIT is pushing forward (A) the development of urban structural disaster prevention centers (disaster prevention centers) with unitary functionality of stopping the fire from spreading and creating evacuation paths through the construction of non-flammable buildings along expressways; (B) the improvement of disaster prevention level of dense urban districts and the enhancement of living environment through reconstructing decrepit buildings into the fire-resistant buildings by carrying out disaster prevention block development projects and comprehensive development projects for residential urban area.

5) Ensuring open spaces

In order to work out the development of a safe and secure city through disaster prevention functionality enhancement, various developments are being pushed forward for building recovery strongholds during disasters, such as disaster prevention centers as the temporary base for supplying basic necessities and disaster prevention parks as evacuation spots for accommodating the people from the surrounding areas who need shelter and have difficulty going home, and for protecting human lives from the fires in urban districts. Moreover, disaster prevention park and block development projects are being implemented in 9 districts such as the Gaigodai Former Site Park (Tokyo Metropolis) for unitarily carrying out the facility enhancement of disaster prevention parks and the surrounding urban districts.

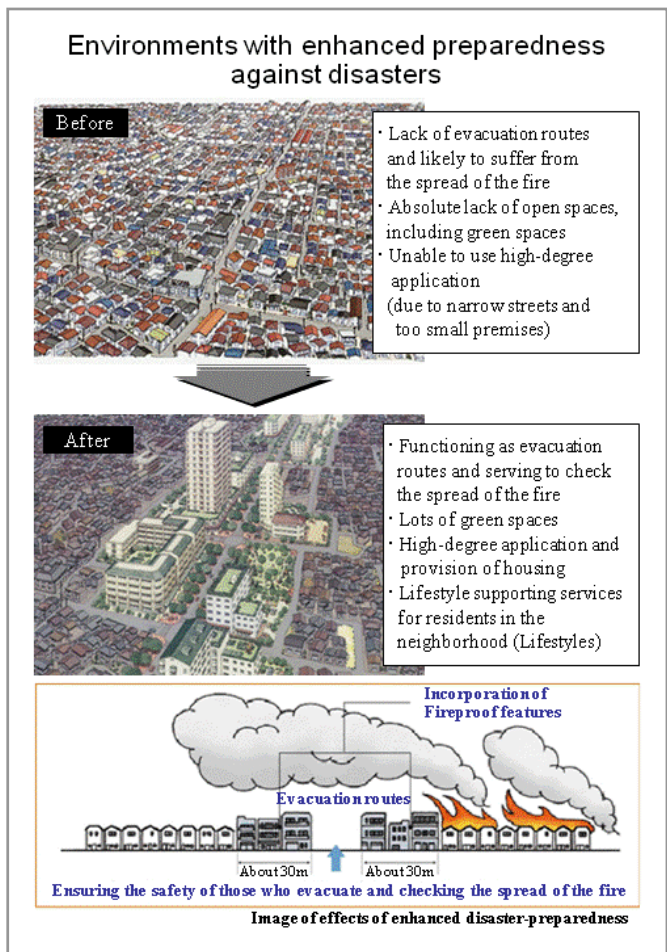
6) Promotion of the development of disaster prevention government offices that ensure comprehensive earthquake-resistance safety levels

From the viewpoint of ensuring comprehensive earthquake-resistance safety levels, in FY 2009, the current earthquake-resistance level and the future earthquake-resistance targets of the necessary government facilities and the general government facilities for disaster emergency-planning activities were released. At the same time, the earthquake resistance measures of Central Government Building No. 1 (Kasumigaseki) etc, are being pushed forward.

7) Improvement of earthquake-resistance levels in public facilities

For the river business, in order to further improve the earthquake-resistance functionality of river structure buildings, regular examinations and measures for earthquake resistance on the basis of the so-called level-2 earth tremors (tremors of the same magnitude as the Great Kanto Earthquake in 1923 and the Southern Hyogo Prefecture Earthquake in 1995).

For the coast business, according to urgent projects on coastal earthquake-resistance measures, coastal earthquake-resistance measures are being urgently implemented in areas below sea level at which regional central functional districts are located.



For the road business, in order to secure the indispensable urgent transportation routes for smooth rescue activities, the transportation of urgent material supplies and recovery activities during disasters, measures are being implemented so as to prevent great damage to bridges on urgent transportation routes connecting prefecture offices for regional rescue team to travel upon.

For the harbor business, in order to secure the transportation of disaster victims and urgent material supplies during large-scale earthquakes, key regional disaster prevention centers and reinforced earthquake-resistance wharfs are being developed. At the same time, the development of earthquake-resistance reinforcement of costal roads connecting urgent transportation routes and open spaces (e.g. wooded areas) are being pushed forward.

For the airport business, in order to secure airport functions during earthquakes, seismic retrofitting is being implemented in Tokyo International (Haneda) Airport, Sendai Airport, New Chitose Airport, Niigata Airport, Osaka International Airport (Itami Airport), etc.

For the sewerage business, in order to secure essential functionalities during earthquakes including disaster prevention center toilets and the disinfecting function of treatment spots, the comprehensive sewerage project on the measures against earthquakes was established in FY 2009 and is being implemented intensively, including pipes connecting disaster prevention centers and treatment spots, and seismic retrofitting for water treatment facilities, etc.

8) Improvement of earthquake-resistance levels in public facilities

As part of the measures against the blockage of river courses (natural dam) caused by the Iwate-Miyagi Nairiku Earthquake in 2008, the emergency measures such as river course digging is continuing and the urgent direct-control local landslide prevention project has been implemented from FY 2009.

Furthermore, in view of such disasters, based on the "details of the legal system regarding the evacuation alert of special sediment disaster etc." suggested by experts in December 2009, measures against sediment disasters are being pushed forward in order to reduce the damages resulting from the large-scale sediment disasters caused by large-scale earthquakes such as Tokyo Inland Earthquakes and Tonankai and Nankai Earthquakes which may occur in the future.

(9) Measures against snow damage

1) Securing land transportation during winter (Snow-winter Project)

Based on the "Act on Special Measures concerning Maintenance of Road Traffic in Specified Snow Coverage and Cold Districts", projects for snow removal, snow prevention and frozen snow damage prevention for roads are being carried out in order to support safe and secure life and reinforce the communication/cooperation between regions. Additionally, in order to work out information sharing and unified information provision for traffic stoppages and the snow removal situation during heavy snowfall, information and communication headquarters are to be established by the related organizations such as road administrators.

2) Measures against avalanche disasters in heavy snowfall areas

In Japan, there are around 21,000 sites at risk from avalanches. In order to protect human lives from avalanche disasters in villages, the structural development of snowfall prevention facilities is being pushed forward.

3) Implementation of projects for the introduction of water for snow-melting use

In heavy snowfall areas, in addition to securing flood control functionality, the development of water channels is being carried out so as to channel snow-melting water from rivers rich in water resources to small-size and medium rivers in urban districts.

2. Enhancement of Disaster Prevention Systems

(1) Promotion of soft measures by improving information and publicity on safety and security

Tackling with natural disasters and accidents, soft measures on safety and security are implemented with hard measures, such as effective information provision and business continuity plans (BCPs) in disasters. Based on the "MLIT Soft Measures Promotion Outline for Safety and Security" formulated in 2006, yearly progress has been examined. As of June 2009, 77 measures (70%) out of 111 measures in the Outline have been completed.

(2) Sophistication of disaster prevention information

In order to reduce damages (e.g. human lives) to the largest extent, in addition to structural development, comprehensive information measures are being promoted in order to increase safety from disasters. For instance, collecting and utilizing disaster prevention information in cooperation with related organizations for accurate risk management activities, and providing information for citizens to make accurate decisions and take evacuation actions.

1) Consolidation of disaster prevention information

To enable citizens to get and utilize disaster prevention information easily, the "MLIT Disaster Prevention Information Provision Center"¹ is collecting and providing rainfall information recorded by MLIT and information on disaster measures. In addition, it enables the use of accumulated data on weather, the water levels of rivers, tide levels and diastrophism with the geographic information system (GIS).

¹ <http://www.mlit.go.jp/saigai/bosaijoho/>

2) Preparation of the hazard map

For enabling citizens to take the appropriate evacuating actions during disaster, the creation and distribution of hazard maps are being pushed forward for informing citizens of evacuation sites and evacuation routes in advance. Moreover, an Internet portal site¹ has been established for enabling the public to browse the national hazard maps.

According to the “Flood Fighting Act”, the preparation of flooding hazard maps is obligatory and guidance for drawing these maps is stated. Moreover, a “complete hazard map for the whole district” is being pushed forward for displaying floodwater depth during river flooding and indicators related to floods (e.g. evacuation place) on telegraph poles.

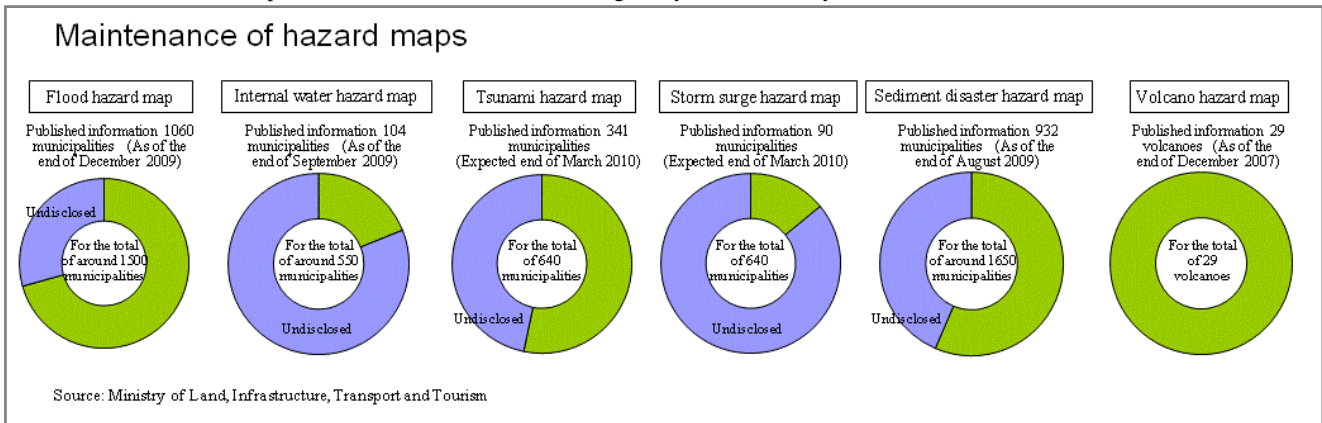
For inland flooding hazard maps, in view of their importance as non-structural measures for reducing flood damages, drawing guidance is stated and regional public organizations support map drawing at the early stages.

For tsunami and tidal wave hazard maps, as one of the large-scale disaster measures against the Tokai, Tonankai and Nankai earthquakes, the related ministries and government offices are cooperating to provide drawing manuals and case collection.

For sediment disaster hazard maps, based on the “Basic Guidelines for Sediment-related Disaster Prevention”, the preparation of hazard maps combined with the designated sediment disaster caution districts is being pushed forward.



For volcanic hazard maps, a list of 29 volcanoes, which greatly affect society due to volcanic activities, was released.



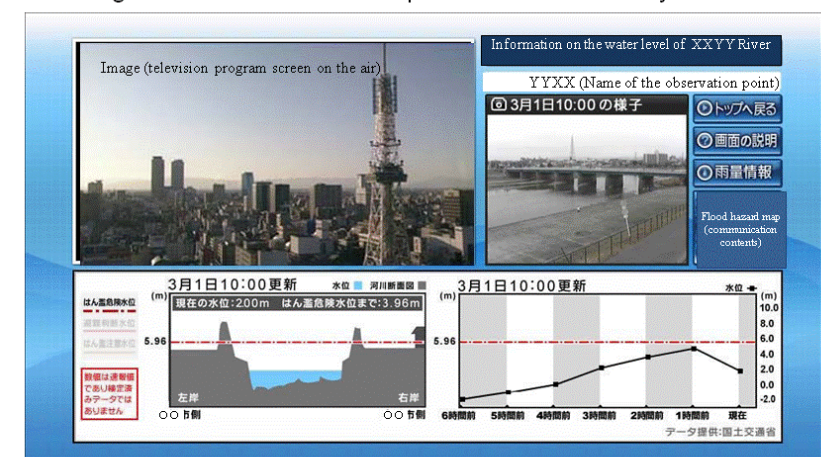
3) Provision of disaster prevention information during flooding

In order to provide information contributing to awareness of floods and smooth evacuation, rivers forecast to flood are specified among the major rivers and public announcements on flood forecasting (flood warning information, flood caution information, etc.) are performed. Furthermore, other major small and medium size rivers are specified as rivers for which water levels are announced for the purpose of delivering water-level information (Special Alert Water Level), which is the reference figure for issuing the official announcement of evacuation warnings.

Moreover, in order to provide information including water level, rainfall, flood forecasting and flood fighting alerts,

real-time river information is being provided for the public on the website named “River Disaster Prevention Information²”. When a typhoon occurred at the end of September 2009, the hit rate of the website was about 40 million times per day and was being used effectively for alerts and evacuations during flooding.

Providing information for disaster prevention that is easy to understand



Providing information through digital terrestrial broadcasting

¹ <http://www1.gsi.go.jp/geowww/disapotal/index.html>

² <http://www.river.go.jp> (Internet Version); <http://i.river.go.jp> (Mobile Version)

Furthermore, measures against regional heavy rain and torrential downpours are being promoted, such as the development of the X band Multi-parameter Radar¹ network, the sophistication of flood forecasting and the provision of river information to related autonomies from the Flood Disaster Forecast Center which was established at the Regional Development Bureau in April 2009.

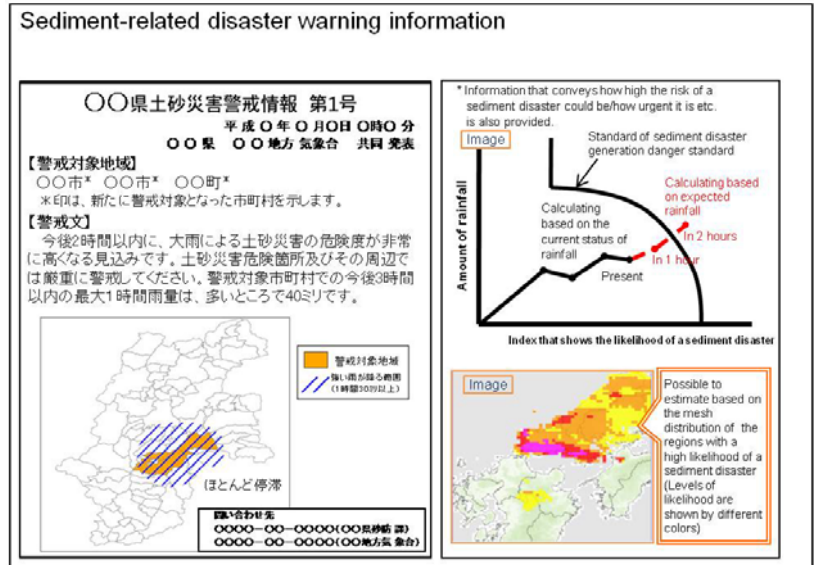
4) Issuance of sediment-related disaster warning information

If there is a risk of sediment disaster during heavy rains, prefectures and the Japan Meteorological Agency will announce sediment-related disaster warning information jointly and information will then be provided to municipalities through the prefectural Fire Defense and Disaster Prevention Division, in order to provide reference information for the mayor to decide the time to announce evacuation alerts and for local people to decide the evacuation method by themselves.

5) Sophistication of weather information for disaster prevention

From May of 2009, the Japan Meteorological Agency extended the forecast period of the typhoon track to five days and worked out the enhancement of supporting early disaster prevention preparing activities. Besides, in June

of the same year, the weather subcommittee of the traffic policy council summarized the “the appropriate method for weather service for reducing the damages caused by regional heavy rains”. According to this summary, the popularization and enlightenment of safety knowledge towards education institutes is carried out by using newly formed guidance on the utilization of weather information for disaster prevention. At the same time, monitoring ability was improved through developing the additional weather Doppler radar and shortening the observation interval of the weather radar.



¹ Compared with the existing radar, it is possible to carry out observation in higher resolution (250m – 500m mesh) and frequency (per minute).

Column – Regarding warning and advisory issuance for municipalities

Due to the succession of huge typhoon and flooding damages caused by the seasonal rain front and typhoons occurring in FY 2004, according to the MLIT policy review, the Japan Meteorological Agency formulate the enhancement policy in providing the disaster prevention weather information including the adjustment from the warning issuance standard to the evacuation recommendation standard, the clarification of target districts for warnings etc. Measures are formulated based on the review results of evacuation recommendation made by the cooperation of related ministries and government offices, and the appropriate judgment standards for evacuation instructions and supporting people who need assistance during disasters.

In order to more effectively utilize heavy rain and flooding warnings and advisory issuances for taking disaster prevention actions during weather disasters, the Japan Meteorological Agency took specific measures and carried out the enhancement of announcement standards, such as introducing new indicators that can more appropriately represent the dangers of landslides and flooding disasters. Moreover, in order to closely support the evacuation recommendation performed by the mayor and the individual evacuation method decided by local people, the following improvements are implemented from the latter part of May 2010.

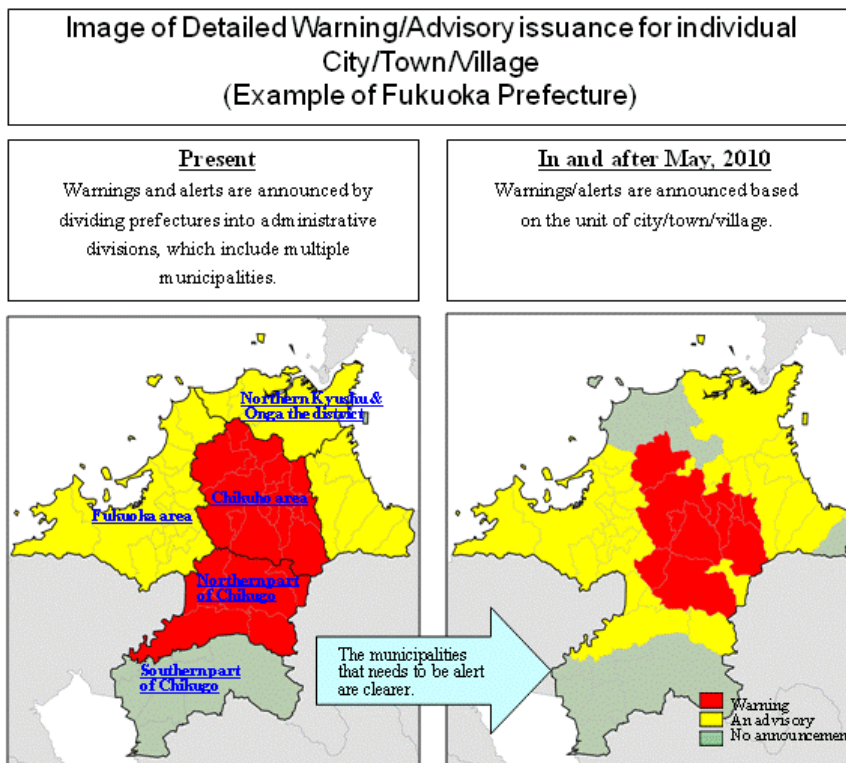
(1) Delivering warnings and advisory issuances to municipalities individually

Warnings and advisory issuances for drawing attention against disasters caused by heavy rain and flooding have been delivered to numerous divided districts in the target prefectures so far. However, hazardous phenomena are likely to occur in limited areas and time. Therefore, warnings and advisory announcements are delivered to individual municipalities in order to state the districts in need of caution more clearly.

Additionally, warnings and advisory issuances of heavy rain, flooding and storm surges are carried out according to standards reflecting the circumstances of individual municipalities.

(2) Clear statement of disasters to be cautious of with heavy rain warning

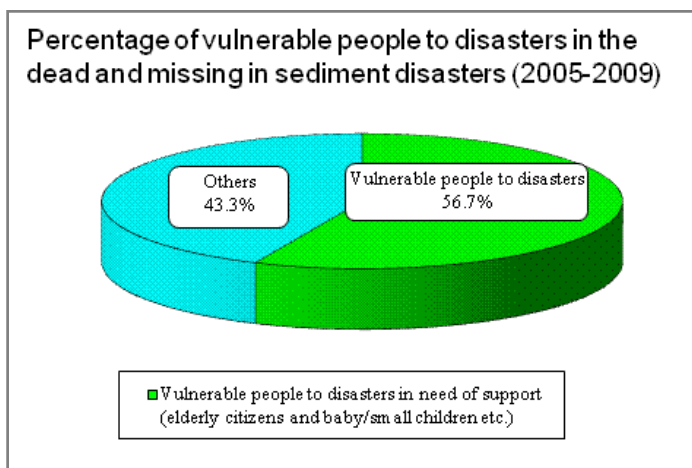
Although the “Heavy Rain Warning” has been drawing the attention of warnings against flooding and landslides, the disaster types to which attention should be paid is not easy to understand. Therefore, the issuance of heavy rain warnings is accompanied by disaster types to which special attention should be paid, such as “Heavy Rain Warning (landslide)” and “Heavy Rain Warning (flooding)”.



(3) Improvement of the disaster-resistance ability regionally

1) Measures for those vulnerable to disasters, such as senior citizens and babies

Based on the “Law related to Promotion of Measures for Sediment-related Disaster Prevention in Restricted Areas etc. due to Sediment-related Disaster”, restrictions are imposed on the development activities of facilities related to those vulnerable during disasters is applied to the special sediment-related disaster hazard areas. Moreover, based on the “Flood Fighting Act”, the municipalities formulate the announcement method for delivering flood forecasting to facilities related to vulnerable people during disasters and are cooperating with prefectures to provide support. As of December 2009, the targeted facilities in 487 municipalities were prescribed in the plan on regional disaster prevention for municipalities.



2) Strengthening the flood fighting system

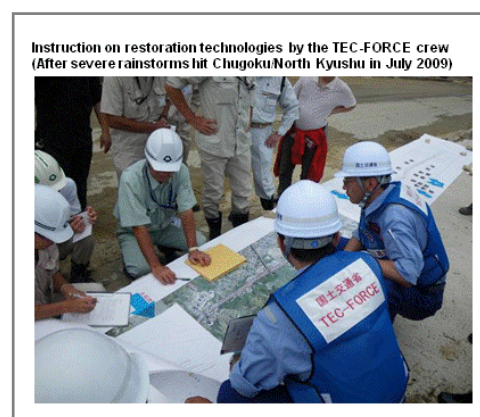
In order to improve the skills of flood fighting corps, flood fighting experts are dispatched to the municipalities upon request for carrying out flood fighting training and seminars. Based on the “Flood Fighting Expert Dispatch System”, support can be provided to municipalities that lack the necessary flood fighting skills instructors for them to receive professional training.

(4) Strengthening the risk management system for disasters

As part of the measures against natural disasters, MLIT is carrying out the forecast of natural phenomenon that may cause disasters (Japan Meteorological Agency), measures for emergency recovery and facilities inspection during disasters, and ocean rescue actions (Japan Coast Guard). At the same time, an initial reaction system is being constructed which will include the emergency assembly of staff and the establishment of disaster action headquarters. Furthermore, based on the support menu towards regional public organizations, support to the related organizations is being implemented actively.

1) Strengthening the risk management system

The system for dispatching the Technical Emergency Control Force (TEC-FORCE) is being set up in case of large-scale disasters or their possibilities in order to promptly and smoothly provide the technical assistance for swift grasp of the damage situation; for preventing the occurrence and expansion of damage; and for early recovery and other emergency disaster measures conducted by local governments. In FY 2009, a total of 1,287 TEC-FORCE members were dispatched and they provided technical assistance for quick recovery of disaster areas and prevention of disaster occurrence at the disasters: heavy rainfall in Chugoku and Kyushu in July, Typhoon Etou (9th typhoon in 2009) and the earthquake in Suruga Bay on 11th August.



2) MLIT Business Continuity Plan

Based on the “MLIT Business Continuity Plan” established for preventing the interruption of MLIT business from the supposed Northern Tokyo Bay earthquake, the capacities of business continuity are being improved through training.

3) Deployment of information communication systems and machinery prepared for disasters

In order to secure information communication systems during disasters, a self-operated high reliability network is being constructed by using optical fibers and multiple wireless communication circuits between head offices, local branch offices and related organizations. Moreover, the machinery, including helicopters for disasters, satellite communications vehicles, drainage pump vehicles and lighting tenders, for dealing with disasters are deployed and are utilized for dealing with disasters in order to enable quick disaster information gathering and emergency recovery.

4) Implementation of practical risk management training

The role-playing type practical risk management training is being actively implemented for experiencing simulated disaster emergency measures and improving the ability of personnel when dealing with disasters. Additionally, the further promotion of participation by local people, enterprises and NPOs as well as more practical and involved flood fighting drills are carried out, such as verifying the evacuation site and evacuation routes. Moreover, in June 2009, national unified disaster prevention training against sediment disaster was implemented. At the same time, risk management training for landslide dams was carried out based on the “Risk Management Plan on large-scale sediment disasters”. In July of the same year, the comprehensive disaster prevention training for large-scale tsunamis was carried out in Shizuoka City of Shizuoka Prefecture.

5) Preparation of initial reactions in the ocean

The Japan Coast Guard is equipping patrol vessels and aircraft and adopting the 24-hour real-time responding system for

enabling quick response when disasters happen. In addition, during disasters, the operational headquarters is established for quick and accurate response through surveying damage conditions by patrol vessels and aircraft; and carrying out rescue activities.

(5) Enhancement of the monitoring and information announcing system for earthquake and volcanic activity

1) Measures taken by the Japan Meteorological Agency (JMA)

(A) Measures against earthquakes and tsunamis

In order to prevent and reduce damage caused by earthquakes and tsunamis, national seismic activities are monitored by a 24-hour system and best efforts are put into quick and accurate announcements on Earthquake Early Warnings, tsunami alerts and information on earthquakes and tsunamis. In FY 2009, JMA started to utilize tide level data provided by the six GPS ocean wave meters of the Ports and Harbors Bureau and the five tidal stations of the Ports and Harbors Bureau and the Japan Coast Guard for tsunami information, and the corresponding observation points of GPS ocean wave meters and the tidal stations monitored by JMA are respectively, eight and 165, in number.

(B) Earthquake Early Warnings

Based on the revised “Meteorological Service Act”, JMA has provided the Earthquake Early Warnings as advanced announcements of earthquakes. By the end of December 2009, the Earthquake Early Warnings (alert) of 12 earthquakes was announced and was provided to citizens through the media such as television and radio. For protecting lives from the earthquake, it is important to frequently carry out exercises, so the nationwide trainings were carried out in June and December of the same year. Especially in the training held in December, the Earthquake Early Warning for training use was delivered to part of the public users in addition to the central and local governments for the first time. Moreover, in August of the same year, new observation points were utilized and the magnitude estimation equation was implemented for quickening the Earthquake Early Warning and increasing accuracy.

(C) Measures against volcanoes

In order to prevent and reduce the damage caused by volcanic eruptions, 4 Volcanic Observation and Information Centers continuously watch the active volcanoes in Japan, and aim to issue Volcanic Warnings and other related information promptly and accurately. From August 2009, JMA has installed observation instruments, including borehole-type seismometers, tiltmeters and others for 47 active volcanoes, for which it is recommended that they enhance the monitoring and observation system by the Coordinating Committee for Prediction of Volcanic Eruptions.

2) Measures by the Japan Coast Guard

(A) Monitoring of crustal movement

The Japan Coast Guard is carrying out seafloor geodetic observation on the landward side of the Japan Trench, the Sagami Trough and the Nankai Trough, which are focal regions of large earthquakes, and also carrying out GPS observation in the islands of the South Kanto area to contribute to seismic and volcanic research.

(B) Observations concerning activities of submarine volcanoes

The Japan Coast Guard is conducting observations of precursors to eruptions by submarine volcanoes, such as colored sea water, for the purpose of providing corresponding information to mariners. In addition, the Japan Coast Guard is carrying out comprehensive surveys to compile basic information on volcanoes in sea areas, which is the base data for the prediction of eruptions by submarine volcano.

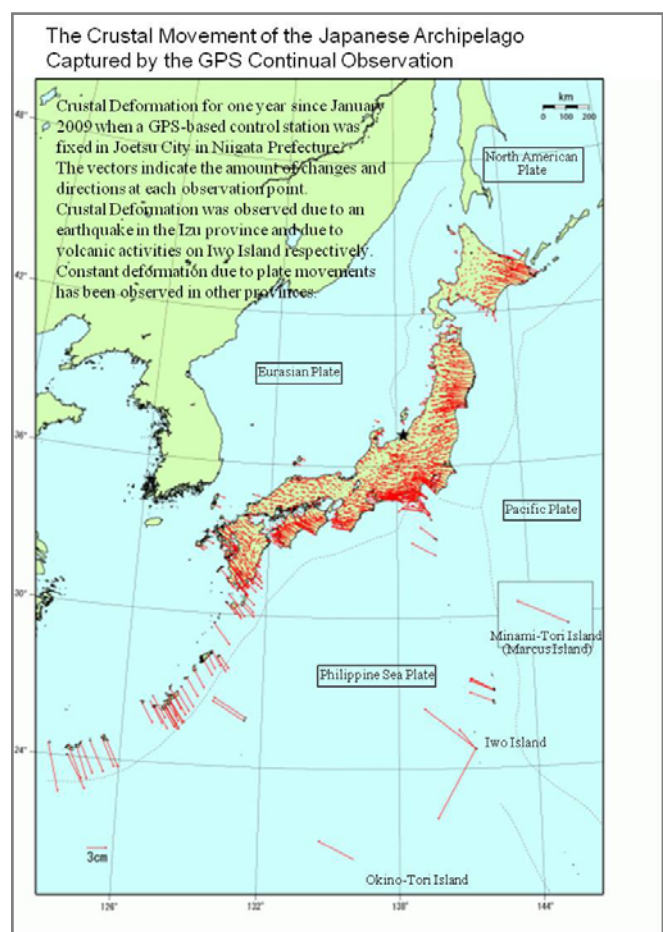
3) Measures taken by the Geospatial Information Authority of Japan (GSI)

(1) Strengthening the observation and monitoring of diastrophism

GSI has established 1240 GPS-based control stations throughout the country. They are research facilities for earthquakes and volcanic eruptions. These points enable us to monitor crustal movement in real time. Furthermore, diastrophism monitoring is strengthened through “Daichi”, the Advanced Land Observing Satellite.

(2) Investigation of natural disasters caused by earthquakes and volcanic eruptions

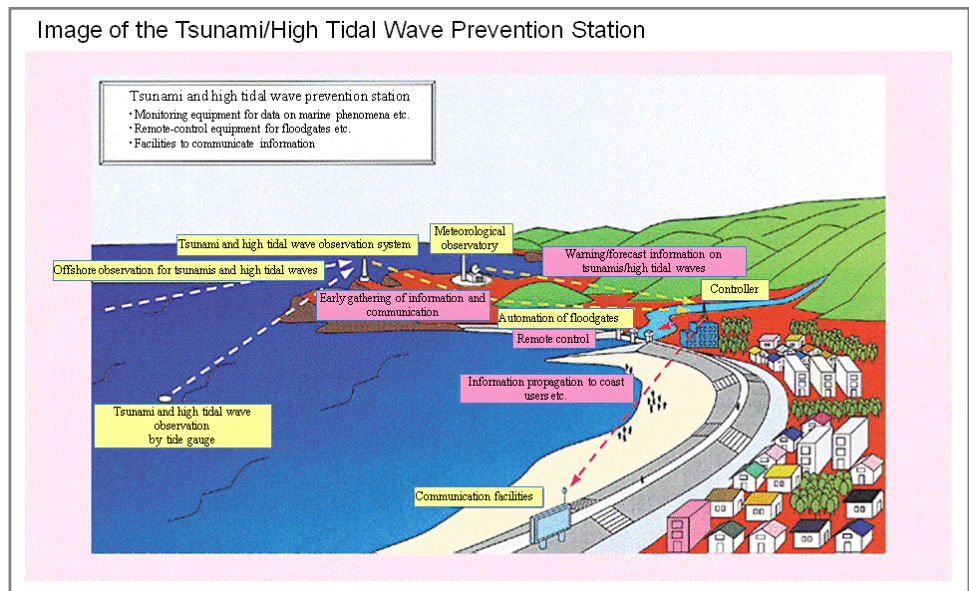
From the achievement of land observation including GPS,



SAR Interferometry¹ (InSAR) and level surveys, the mechanisms of earthquakes and volcanic eruptions are analyzed and research is being carried out for increasing observation and analysis accuracy. Additionally, through analyzing data obtained from airborne laser survey and high-resolution satellite's observation by using GIS, research and technology development contributing to reducing natural disasters caused by landform changes. Moreover, all data/information on earthquake prediction is exchanged with related administration institutes and universities. The Coastal Movements Data Center (CMDC) is being operated for collecting and consolidating the tide level record observed by the Earthquake Prediction Communications Council, the ministries and government offices, and public organizations, which perform the review and monitor the diastrophism respectively.

(6) Enhancing existing stock management through ICT introduction

Through the construction of the optical fiber network, the enhancement of public facility management and risk management is being worked out by utilizing ICT². To be specific, management enhancement through continuous monitoring of road slopes by utilizing optical fibers and measures for using the road safely by providing disaster prevention information via the Internet are being carried out. In addition, other than the remote operation of managing water gates and drainage pump stations, and the remote monitoring of stream conditions and volcano districts, management



enhancement including remote monitoring and operations is worked out by linking sewage processing facilities and pump facilities with optical fibers. Moreover, the development of optical fiber networks and CCTV is being worked out for grasping the coastal situations. At the same time as providing safety information to coast administrators in the early stage, facilities (e.g. water gates) are operated quickly and unitarily, and disaster prevention stations for tsunamis and tidal waves are developed in order to prevent damages caused by tsunamis and tidal waves. (As of the end of 2008, eight regions were in service.)

(7) Recovery of public civil facilities after disasters

In 2009, damages happened in 10,610 spots nationally and about 1,227 billion yen of MLIT administered facilities was lost. Concerning the damages to roads, rivers, ports and sewerage caused by these disasters, the Technical Emergency Control Force (TEC-FORCE) was dispatched to spots immediately after disasters happened. While providing technical support for recovery, resuscitation and disaster reoccurrence, the time taken is made as short as possible even for project adoption and best efforts are put into the quick recovery of disaster area.

Furthermore, in order to ensure the safety and security of local people, projects were implemented for urgently preventing disaster reoccurrence in disaster areas that were damaged by natural phenomena, including heavy rain and typhoons, through the execution of urgent project promotion expenses for disaster measures.

3. Ensure a strong traffic system against disasters

(1) Ensure multiplicity and availability of alternatives

Where there is large-scale disaster, at the same time as working out how to secure the safety and transport functionality of users as well as to minimize the effects on national transportation activities, the development of a strong traffic system against disaster is being pushed forward in order to transport the sufferer, personnel, sick and wounded people, and emergency materials. Moreover, transportation business operators and facility administrators are also cooperating and endeavoring to enhance emergency transportation networks in order to secure quick and accurate emergency and alternative transportation during disaster.

¹ Technology for monitoring the movement of the earth's surface from artificial satellites using Synthetic Aperture Radar.

² In our country, the word "IT" (Information Technology) is widely familiarized to represent the Information Communications Technology. However, the word "ICT" (Information Communications Technology) is better known internationally. In the future ubiquitous net society, it is important to realize diversified, free and convenient "communications" so that everybody can connect to the network simply. Therefore, the word "ICT" is used in principle.

(2) Measures against road disaster prevention

Regarding the disasters caused by heavy rain, earthquakes, tsunamis, heavy snows etc., measures for disaster prevention against earthquakes and snow-related disasters are being carried out in order to ensure a safe and highly reliable road network. Additionally, the convenience of road users should be maintained even during disasters. Therefore, disaster information for roads is being provided via the Internet in order to secure safe and smooth road transportation.

(3) Disaster prevention measures taken by every transportation organization

For railways, in order to secure strong, safe and secure railway transportation against disasters, as part of disaster prevention, part of the cost is subsidized for projects against rock falling, snowslides and coastal preservation carried out by passenger corporations, and projects on repairing earthquake detectors for functional preservation of Seikan Tunnel carried out by the railway construction and transportation facility development support organizations.

For ports, in order to provide assistance on quick and efficient recovery projects and emergency transportation assurance, the government and port administrators are strengthening the system of delivering and sharing collected damage information during disasters.

For aviation, Rescue and Fire Fighting (RFF) system is enhanced and strengthened based on the Convention on International Civil Aviation. Moreover, cooperation is strengthened according to the “Airport Emergency Plan” and the support agreements between airport administrators, fire service institutions, medical institutions and business operators in the airport.

Section 3 – Safety assurance of buildings

(1) Reliability assurance for the production and supply system of residential housing and buildings

For preventing the recurrence of incidents similar to the problem of fake building structure statements disclosed in November 2005, fair construction activities are ensured by thorough ordinance observance and architects. In order to facilitate the anxiety-free acquisition of housing and usage of buildings for citizens, the “Act on the Partial Revision of the Building Standards Act for ensuring building safety” was executed in June 2007. The revised content is to increase the strictness of building verification and inspection through obligating the judgment of the appropriateness of structural figures for buildings above a certain scale that need sophisticated structural figures.

After the execution of the revised Building Standard Act, the construction verification procedures have become tied up and as a result there has been a great decrease in residential housing constructions. However, the new construction verification procedure has been fixed to a certain extent by providing detailed information and technical support to the related parties for both the design and the building certification inspection side. Moreover, the revised system of construction verification procedures was implemented in March 2010 in order to speed up building certification inspections and simplify application drawings.

In addition, part of the “Act on the Partial Revision of the Architect Act” established in December 2006 has been implemented since 2008. However, in terms of obligating the involvement of a level-1 architect of structural design in the design of buildings above a certain scale, it was newly implemented in May 2009. Accompanying this change, the measures are being taken for smooth implementation including widening publicity and the support provided by the Construction Design Support Center.

Furthermore, in order to ensure defect guarantee liability, “The Act for Execution of Defect Warranty Liability under HQAA” was executed in October 2009. This Act obligates new housing builders and realtors to deposit foundations or complete defect warranty insurance. In order to operate this Act smoothly, MLIT is developing a reception system for insurance corporations, and is carrying out seminars and distributing pamphlets for builders, realtors and consumers to popularize this Act in all prefectures.

(2) Ensuring the safety of elevators and recreation facilities

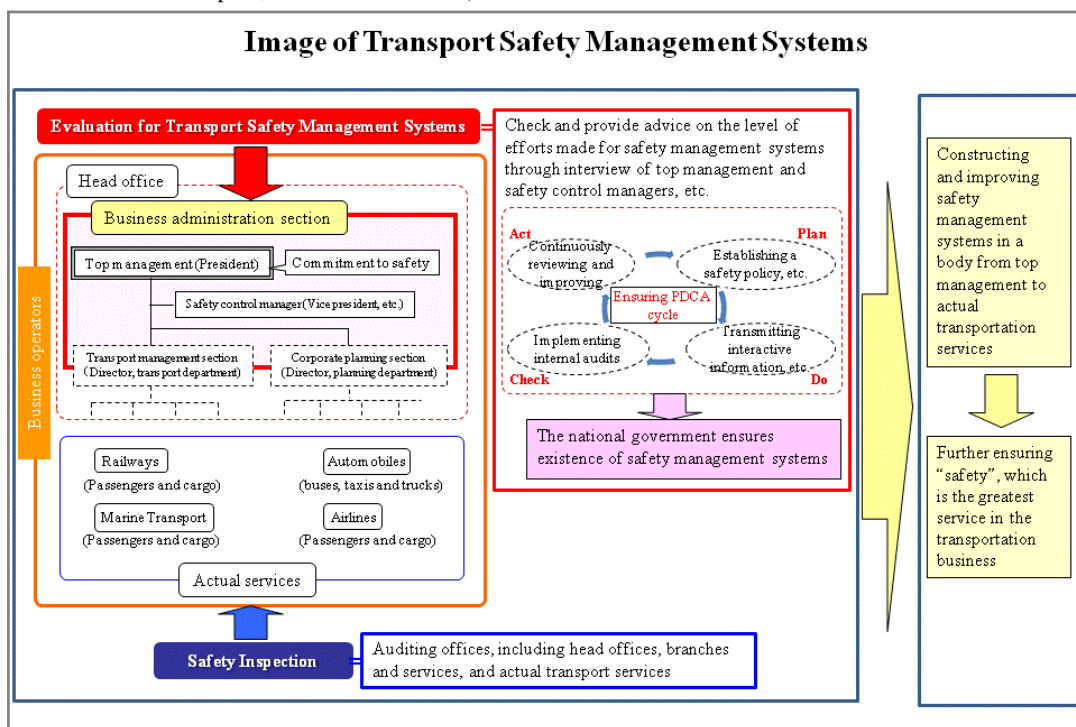
On the basis of fatal accidents related to elevator happened in Minato District of Tokyo Prefecture in June 2006, the Committee on Elevator Accidents etc was established under the Committee on Building Accidents and Disaster Measures of the Social Infrastructure Council in February 2009. Accident and abnormal information analysis, the inspection of accident causes from the viewpoint of preventing reoccurrence and the inspection and review of reoccurrence prevention measures are being performed; and the revision of necessary technical standards are being carried out. Additionally, MLIT revised the technical standards of elevator safety devices in September of the same year.

Section 4 – Enhancement of Safety Measures in Transportation

Safety assurance is a basic and essential issue in transportation. One single accident may cause enormous damages and affect society greatly. Therefore, different kinds of measures are being taken in order to prevent accidents before they happen.

1. Construction and Improvement of Safety Management System in Public Transportation Organizations

In the first half of 2005, there were numerous accidents and problems caused by human error throughout public transportation organizations. Based on the “Act on the Partial Revision of the Railway Business Act, etc. for enhancement the transportation safety”, land, marine and air transportation business operators are obligated to draw out and submit “Safety Management Rules” as well as to assign and report “safety control managers”. Through taking these measures, the business operators are constructing safety management systems in a body from top management to actual transportation services, lead by top management. Moreover, the government is introducing transport safety management systems for performing the “Evaluation for Transport Safety Management Systems” that verifies the implementation progress according to the “Guidelines for Transport Safety Management Systems”. With reference to the recommended items stated in the management system of the international standard (ISO 9001) for quality management, the government evaluates the safety management systems constructed by top management under the principle of “safety is the first priority”. This system is for continuously improving measures on transportation safety by PDCA cycle as well as for working out further safety assurance of public transportation organizations by implementing the old safety inspection to interactive systems. From September 2008 to the end of August 2009, the evaluation for Transport Safety Management Systems was carried out on 832 companies in total (177 for railways, 151 for automobiles, 487 for marine transport, and 17 for airlines).

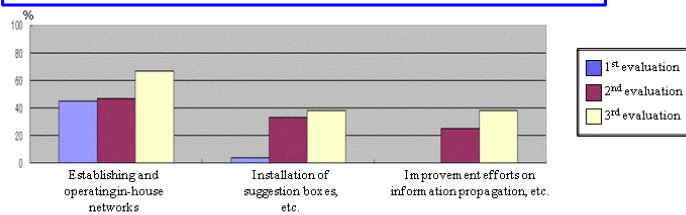


In FY 2009, the guidelines for small-size business operators were formulated in June for them to develop more effective safety management. Additionally, support was provided to business operators for the introduction and firm establishment of this system by formulating a “method for collection/utilization of accident/potentially serious error information (for automobiles and marine transport)” that states the risk management method and is being adopted by many business operators. Moreover, having summarized the result of evaluations performed so far after introduction of the system, measures relating to the transportation safety management taken by business operators have greatly changed. There has also been remarkable improvement especially in the enhancement of information delivery and communications within the company, the promotion of the collection/utilization of accident/potentially serious error information, and the enhancement of education/training. The effects brought by introducing this system are becoming clear. In order to maximize the effects of these measures, the enhancement of thorough information provision related to transportation safety was devised, including the renewal of an e-magazine named “Transport Safety”, the establishment of a transportation safety measures cases site, and production of instructive case collection by using former cases of accidents.

Effect of Introduction of Transport Safety Management Systems in Major Operators (October 2006 – September 2009)

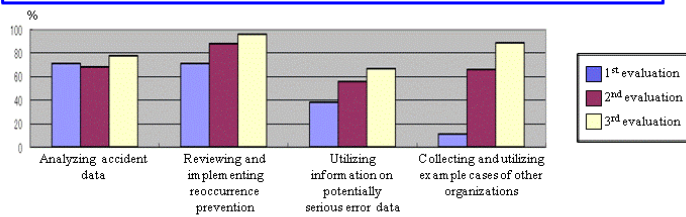
(1) Information propagation / Communications

Installation of suggestion boxes, etc. 4% → 38%
Improvement efforts on information dissemination 0% → 38%



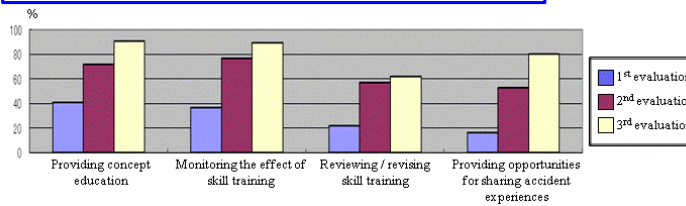
(2) Collecting and utilizing information on Accident / Potentially Serious Error Data

Reviewing and implementing recurrence prevention 71% → 96%
Utilizing information on potentially serious error data 38% → 67%
Collecting and utilizing example cases of other organizations 11% → 89%



(3) Education and Training

Providing opportunities for sharing accident experiences 16% → 80%



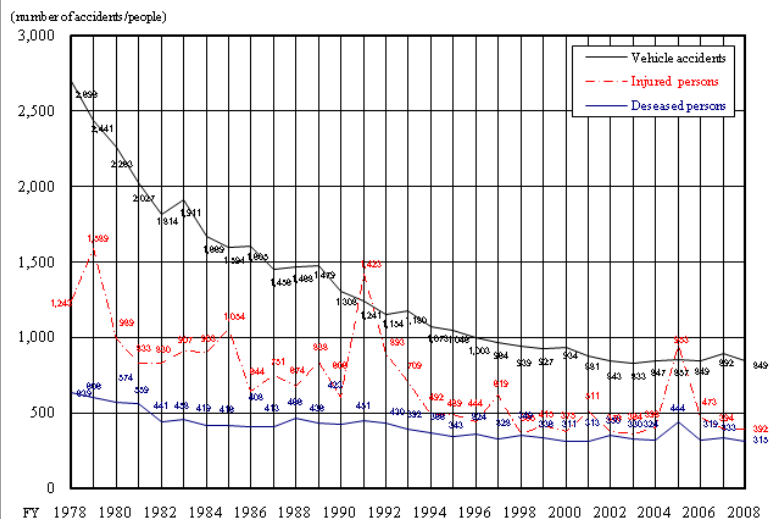
2. Safety measures for railway transportation

The number of operation accidents in railway transportation is moving in a long-term decreasing trend¹ and has been moving to 800 since FY 2001 as a result of carrying out the promotion of railroad crossing accident prevention measures, and the development and enhancement of safety equipments such as the automatic train stop device (ATS).

(1) Ensuring the safety of railway tracks

Due to the derailment accident of Fukuchiyama Line that happened in April 2005 and also with consideration for recent accidents, measures are being carried out for pushing forward the development of introducing an Automatic Train Stop device (ATS) with a speed restricting function on curvilinear parts that is obligated by the partial revision of the “Ministerial Ordinance Prescribing the Technical Standards Regarding Railways”, the establishment of a train stopping device for when the driver is indisposed, and an operation situation recording device.

Number of Casualties in Vehicle Accidents



Note: 1. Injuries/deaths are mainly caused from crossing accidents, entering public railway tracks and falling from platforms.
2. 2 accidents have occurred where passengers have died (The train derailment accidents on the Fukuchiyama Line of JR West and on the Uetsu Main Line of JR East) since the train crash on the Eidan Hibiya Line in March 2000.
Source: The Ministry of Land, Infrastructure and Transport

¹ The number of fatalities and injured persons increased greatly in 2005 as a result of the derailment accident of the Fukuchiyama Line of West Japan Railway.

Furthermore, influenced by the derailment accident of the Uetsu Line that happened in April 2005, railway track business operators are instructed to implement measures against gales formulated after performing the urgent general inspection of the anemometer and reviewing the inspection results. Additionally, the further enhancement of the gale observance system on railways is being worked out through increasing the number of new anemometers. Moreover, accident prevention is being worked out by implementing safety inspections etc., on railway track business operators for checking whether the measures for ensuring transportation safety are appropriate.

(2) Strengthening preventive measures against railroad crossing accidents

Based on the “Railroad Crossing Enhancement Promotion Act” and the “8th Transportation Safety Basic Plan”, various measures are being pushed forward and best efforts are being put into the prevention of railroad crossing accidents. The measures include the development of multi-dimensional road-crossing facilities such as constructing a multi-dimensional intersection, improving the structure of and building overhead walkways, and the development of railroad crossing gates and highly standardized safety equipment (such as obstacle detecting devices).

3. Safety measures for marine transportation

Reviewing the figures of the past 5 years, the number of fatalities/missing persons caused by sea disasters is on a decreasing trend. However, the number of ships that have met with sea disasters (number of sea disaster ships) is almost moving sideways, so it is necessary to further push forward safety measures.

(1) Improving ship safety and ensuring the safety of ship navigation

1) Improving ship safety

Regarding ship safety, the International Maritime Organization (IMO) is in charge of prescribing international standards. Currently, in order to cope with the revision of the SOLAS convention¹ that is scheduled from 2010 to 2011, the revision of the country’s ordinance is being carried out. Moreover, Port State Control (PSC)² inspections are being implemented for eliminating substandard ships³.

2) Ensuring the safety of ship navigation

In order to cope with the change in marine transportation conditions (e.g. increase in ship speed) and ensuring the safety of ship navigation, new information technology was utilized. The enhancement and renewal of navigation signs were implemented in 610 spots for improving navigation regulations and systems for information provision.

In July 2009, the Act on the Partial Revision of the Act on Port Regulations and the Maritime Traffic Safety Act were promulgated. The enhancement of navigation assistance for protecting ships from danger and the establishment of new navigation rules according to the features of each sea area were taken. Aiming to implement this on 1st July 2010, the 19th Traffic Policy Council (Maritime Division) Conference was held in November 2009. In order to implement a new system based on the same Act, a report of the standard is being collected, such as, the sea area of the new navigation setup, and the size of ships instructed to wait outside the routes for preventing ships from danger, and it is being prepared for carrying out appropriate use.

Furthermore, Japan Coast Guard aims at the enhancement of nautical publications. Japan Coast Guard also issues nautical charts in English only as one of the sea disaster prevention measures for foreign crews. Moreover, in order to prevent human error that is the cause of 50% of collisions, the examination and inspection of “Sailing Coordination Assisting Systems (SCAS)”⁴ are also being carried out. In addition, the effectiveness evaluation of simple electronic navigation machines (e.g. Class-B AIS) has been initiated. Furthermore, the “Sea Disaster Accident Analysis Center” in the National Maritime Research Institute is working on the sophisticated professional analysis of accident causes, and is carrying out quick information analysis and information delivery during serious sea disasters.

Moreover, 84% of sea collisions are caused by “insufficient attention”. Therefore, in order to improve the awareness of the watch, a practical review was held from September 2008 for pushing forward the appropriate use of automatic navigation devices, and the guidelines were formulated and published in July 2009.

Regarding the pilotage system, in order to cope with the recent change of social situation related to the pilotage system, the revision of the Pilotage Act and related ordinances were carried out, and Tokyo Bay, Isesanka Bay and Osaka Bay were unified. Through taking these measures, the reduction of ship costs and the congestion alleviation by connection resolution are anticipated. It is expected that there will be further safety assurance of ship transport and an increase in transportation efficiency.

Furthermore, the straits of Malacca and Singapore are an extremely important marine transportation course for our country as above 80% of imported petroleum is transported on this route. The government of our country is joining the support-requesting project of coastal countries on the same strait according to the “Cooperative Mechanism”. At the same time, the manufacturing

¹ International Convention for the Safety of Life at Sea

² The foreign ships supervisor appointed by the country being entered

³ The ship does not meet the standards set by the international convention

⁴ The new sailing assisting system for enabling coordination between ships in order to prevent crashes by sending the sailing direction of ships to other ships

industries of our country and the Japanese foundations have provided help to the Navigation Assisting Facilities Fund¹. In the 2nd Cooperation Forum of the same mechanism held in October 2009, our country also suggested that it was important to keep endeavoring further to cooperate with coastal countries, user countries and private sectors in order to make the same mechanism a sustainable framework. In the future, as the top user country of the same strait in the world, our country will be utilizing the knowledge accumulated and the good relationship built so far, and will be actively helping with the safety measures of the same strait with the cooperation of the government and private sectors.

(2) Promotion of safety measures for ship passengers

In passenger-related accidents, over 50% of the fatalities and missing persons are people who fall into the sea. In order to survive after falling into the sea, people must be able to keep floating on water to begin with. Then, it is necessary to call for help quickly. Therefore, the Japan Coast Guard implements the campaign of self life-saving for promoting three basic actions including the everyday wear of life jackets, the assurance of appropriate communication methods (e.g. water-proof mobile phones) and the effective utilization of the emergency phone number “118” connecting to the Japan Coast Guard, and is endeavoring to carry out popularization and enlightenment. In 2009, the death rate of passengers who fall into the sea from small-size ships (fishing boats or pleasure boats) is 15% and 48% for passengers who put on life jackets and passengers who did not put on life jackets respectively. From the figure, it revealed that the wearing of life jackets greatly helps people to survive when accidentally falling into the sea. Therefore, safety promotion activities are being implemented, especially during long holiday periods and summer, as well as to push forward the wearing of life jackets throughout the year.

(3) Strengthening the rescuing system

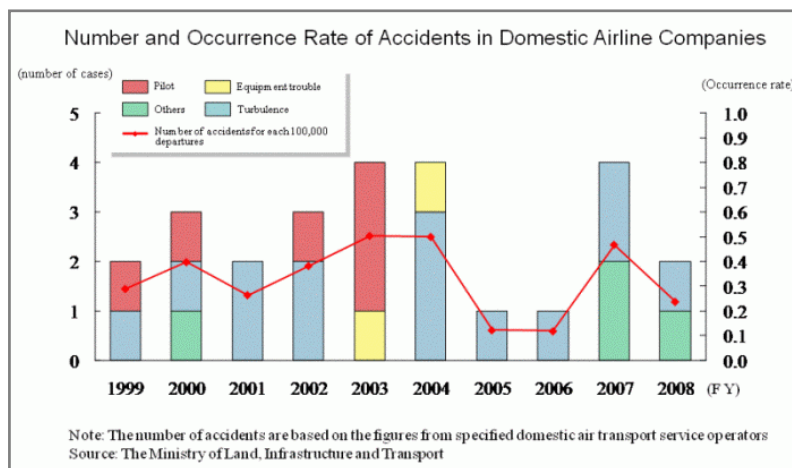
In order to carry out immediate and precise rescues, the Japan Coast Guard is endeavoring to grasp the accident information as early as possible by standing by for distress calls 24-hours a day, and utilizing the emergency phone number “118”. Additionally, at the same time to improve the rescue skills and abilities of special rescue teams and divers, the rescue and emergency system is being enhanced and strengthened. The enhancement is being implemented in terms of the equipment for mobile rescuers, who are well trained in the aspects of rescue skills of descending from and ascending to helicopters, diving ability and emergency life-saving ability; the medical control system for assuring the quality of emergency life-saving actions taken by the divers from a medical viewpoint; the functional performance of patrol ships and aircrafts; and the rescue system. In addition, the review for strengthening the system of regional disaster prevention and rescue is being carried out through utilizing the “Ocean Station” which is the center of the marine leisure promotion and etc.

4. Safety measures for air transportation

In order to prevent air accidents and safety problems, safety management systems are being introduced and promoted in the operation and development of airlines, the utilization of airports and air safety projects. It continually and systematically performs the collection and analysis of incident information and helps improve the safety maintenance of air transportation.

(1) Enhancing the safety measures of air transportation

For specific Japan airlines business operators², there have been no accidents causing a passenger fatality since 1986. However, in order to cope with the troubles on safety appropriately, airlines are obligated to construct safety management systems and report troubles on safety and a special designated group is executing rigid audits including spot audits. In April 2009, the information of troubles on safety, inspections and audit records was administered collectively; the utilization of the system for sharing the information among the related parties was started and preventive safety measures were being pushed forward. In addition, the ramp inspection program towards foreign airplanes that fly to our country is being implemented. At the same time, as the State of Manufacture, best efforts are being put into appropriate and efficient evaluation of safety compliance for passenger airplane development in Japan.



¹ The fund established for covering the cost that is necessary to replace and renovate navigation assisting facilities, such as the lighthouses located on the straits of Malacca and Singapore.

² The specific Japan airlines business operators that operate air transportation businesses by using airplanes over 50,000 kg of maximum takeoff weight and over 100 the passenger seats

(2) Construction of air safety systems for safe air transportation

1) Strengthening the measures against runway incursion

In order to prevent the recurrence of incidents of runways incursion, both software and hardware measures are being pushed forward including the prevention of communication problems between the controller and the pilot, and the development of a system for the controller and the pilot to communicate the situation visually. Furthermore, through getting the advice from external experts, further measures for preventing recurrences are being put together and are being implemented firmly.

2) Preventive measures against colliding with birds in airport

In order to prevent the accidents caused by colliding with birds, bird patrols are being implemented for guarding against birds. Moreover, the monitoring system on the behavior of birds is being enhanced through the implementation of the new “investigation for specifying bird type according to DNA/feather identification” and further preventive measures against colliding with birds are being implemented.

5. Identification of the causes of aircraft, railway and marine accidents/incidents for prevention of their recurrence

The Japan Transport Safety Board (JTSB) published an investigation report on an aircraft fire in August 2007 at Naha Airport. It was considered highly probable that it occurred through the following causal chain: When the aircraft retracted its slats, the detachment downstop assembly punctured a hole in the track can, hence resulting in the fuel leakage and fire. JTSB issued the safety recommendation on supervision to the government of the state of manufacture and others related to preparing maintenance job instructions for airlines and the others.

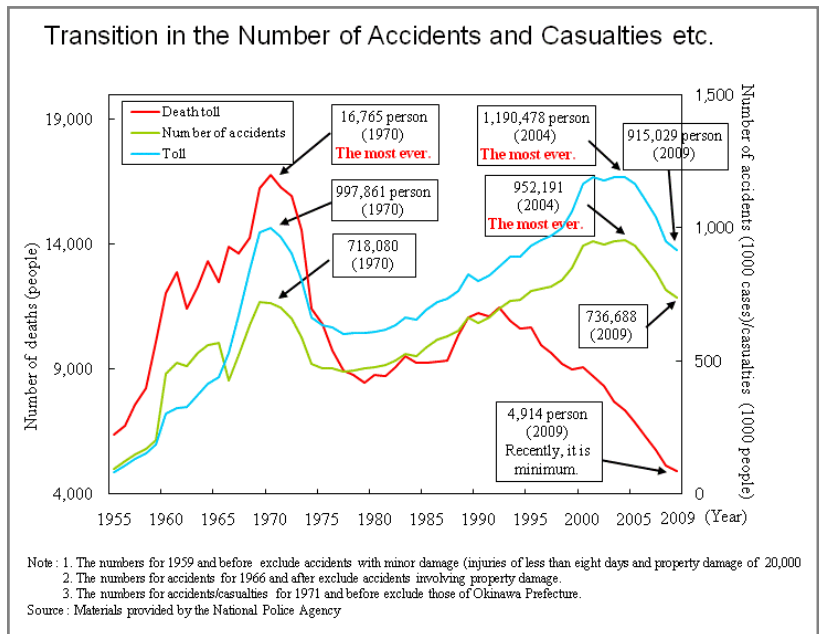
In addition, JTSB published an investigation report on a railway accident with material damages that happened in Kanagawa Prefecture in February 2008. It was considered highly probable that it occurred because of abnormal power running and not based on the driver’s operation of a master controller. JTSB stated opinions to the Minister of MLIT that the railway business operators and the rolling stock manufacturers should share information on train’s malfunction for the noise and accumulate the know-how of failure prevention etc.

Moreover, JTSB published an investigation report on sinking of a recreational fishing vessel that occurred in September 2008 off the coast of Niigata Prefecture. It was considered possible that it occurred from the broken of bolts on an inspection window located at the bottom of the ship due to the engine vibration, separating the window from the ship. JTSB stated opinions to the Director General of the Fisheries Agency, Ministry of Agriculture, Forestry and Fisheries, on the instruction of inspections before leaving port against recreational fishing vessel business operators.

Furthermore, best efforts are being put into prevention of the recurrence of similar accidents through publishing the quarterly newsletter, which includes the outline of investigation reports and lessons learned from accident/incident investigations.

6. Safety Measures for Road Transportation

The number of fatalities caused by traffic accidents in 2009 has continued decreasing over the past nine years and has decreased to 4,000 persons throughout the pass 57 years since 1952. However, the number of senior citizens above 65 years old in the total number of fatalities caused by traffic accidents is about 50%. Therefore, for carrying out measures against traffic accidents according to road characteristics, various measures are being pushed forward including focused measures applied in districts with a high frequency of traffic accidents, the development of pedestrian spaces on the road for student to go to school, and the development of bicycle riding environments.

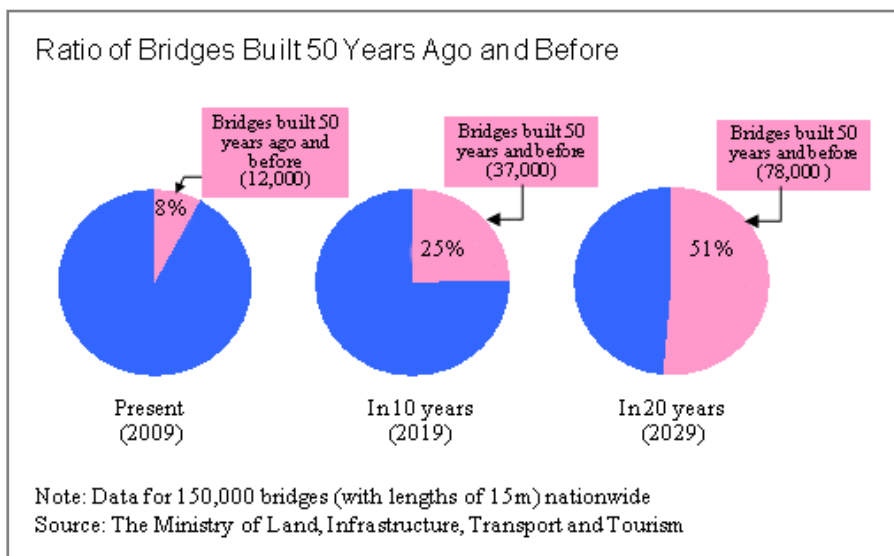


(1) Focused implementation of measures against traffic accidents on main expressways and everyday roads

Concerning main expressways, accidents are concentrated in particular sections. Therefore, listening to regional opinions, projects are being carried out intensively in the districts with a high frequency of traffic accident, including “accident black spots”. With regard to everyday roads, in order to form safe and secure pedestrian priority walking spaces, projects are being carried out intensively on roads connecting to schools with a high usage frequency by secondary school students and a high frequency of traffic accidents, including the project on “Anxiety-free Walking Area” and “Residential Street Zone”.

(2) Systematic management (e.g. bridges) for providing safe and secure road services

From now on, there will be a rapid increase in decrepit roads and bridges that were built mainly during the high economic growth period, and it is feared that there will be an increase in the risk of serious damages. Therefore, from the expressways to prefectural roads, regular inspections are being performed through systematically implementing the “Preventive Preservation of Early Discovery and Early Repair” in order to lengthen the life of roads, expressways and bridges and ensure the long-term use of roads securely and safely. In addition, in order to resolve the problem of ~60% of municipalities not having enough talent, skills and capital and cannot carry out regular inspections, regional public organizations are taking measures such as demonstrations of inspection duties and skills standards, technical and financial support etc.



(3) Comprehensive safety measures for automobile

1) Safety measures for commercial-use automobiles

By setting “the reduction by 50% of human-related accidents and fatalities caused by commercial-use automobiles in the coming 10 years” and “0 cases of drunk driving” as e targets, based on the “Commercial-use Automobile Comprehensive Safety Plan 2009” formulated in March 2009, various measures are being implemented, including publication of an e-magazine named “Commercial-use Automobile Safety News”, enhancement of the monitoring principle and administrative punishment, expansion of target businesses of safety management evaluation, implementation of safety management evaluation through 3rd parties and revision of automobile accident reporting regulation with additional content such as the expansion of the reporting scope of accident news. Furthermore, in order to achieve these targets, the “Follow-up Meeting of the Commercial-use Automobile Comprehensive Safety Plan 2009” was established and held in October of the same year, the progress of measures advancement and target achievement will be verified continuously in the future.

2) Review on future vehicle safety measures

In the MLIT Council Report of June 2006, a reduction in the number of fatalities by 2,000 was targeted (compared with 1999) and a reduction in the number of injured persons by 25,000 (compared with 2005) before 2010. On the basis of this, the evaluation of the target achievement progress and the review on the targets for new vehicle safety measures will be carried out in the future.

3) Expanding and strengthening safety standards

There is concern over vehicles (e.g. hybrid cars) without noise generation, from organizations of people with visual disabilities etc. Therefore, “guidelines on measures against the silent function of vehicles such as hybrid car” was formulated in January 2010. Additionally, the method for collecting, administering and utilizing drive recorder¹ data is being reviewed for expanding and strengthening cause analysis.

4) Provision of safety information through Japan New Car Assessment Program

Having released the assessment result of the safety functionality on automobiles and child seats to the public, the program prompts users to select safer automobiles and manufacturers to develop safer automobiles and child seats. From FY 2000 to FY 2008, through providing the evaluation results of 178 automobile models and 95 types of child seat, it is contributing to the improvement of the safety functionality of automobiles.

¹ A device for recording the data of speed and images reflecting the vehicle’s condition during accidents and urgent braking

- 5) Popularization and promotion of developing and enhancing the practicality of Advanced Safety Vehicles (ASV)

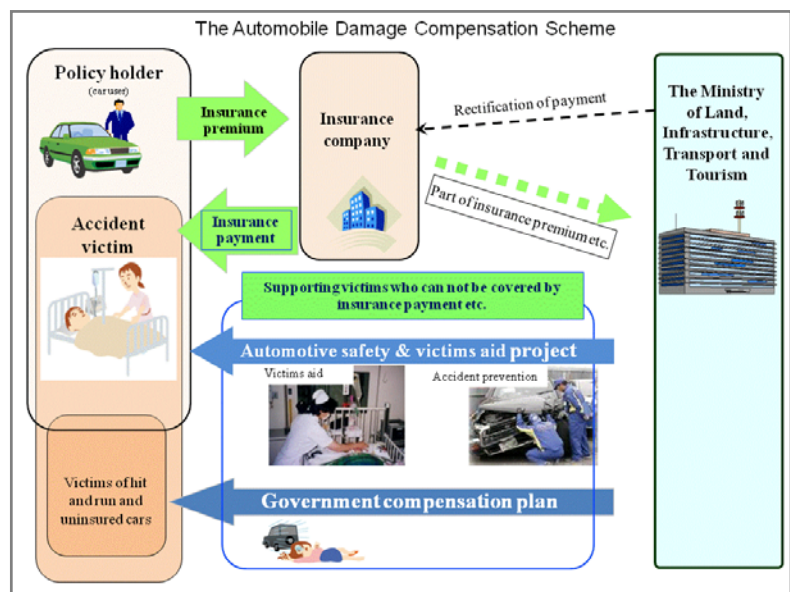
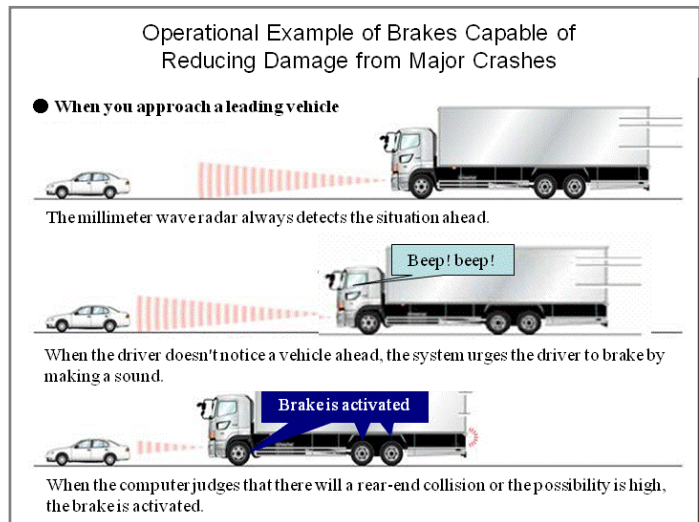
From FY 2006, the 4th ASV Project has been carried out through the cooperation of industry, academics and government. A subsidy is being provided for a Damage Mitigation Braking System for heavy duty vehicles.

- 6) Enhancing and strengthening the recall system

Based on preventive measures against inappropriate behavior relating to recalls performed by automobile manufacturers, best efforts are being made toward the serious utilization of the recall system through strengthening information collection and monitoring systems as well as technical verification. In addition, MLIT is currently considering new measures to enhance the recall system by putting more emphasis on the viewpoint of automobile users. Also, to raise the awareness of automobile users about malfunctions and to prompt the proper use and maintenance of automobiles as well as the taking of appropriate actions for the occurrence of malfunctions, MLIT has started to publish information on accidents and fires caused by malfunctions that automobile manufacturers report to MLIT.

- 7) Sophistication of automobile inspections

In order to identify vehicle problems relating to illegal additional customization¹ and recall in the early stages, automobile inspections are becoming more sophisticated through the utilization of ICT-enhanced automobile inspection information.



- (4) Protecting victims through the automobile damage compensation protection scheme

The automobile damage compensation protection scheme is a compensation scheme that is the responsibility of automobile owners and conducts self-responsible insurance, governmental indemnification and victim relief. It also plays an important role in protecting traffic accident victims.

Section 5 – Risk Management and Safety Protection Measures

1. Promote measures against crime and terrorism

- (1) Measure risk management and safety protection through cooperation with various countries

- 1) Achievements based upon the International Security Ministerial Conference

Regarding land transportation, in the “International Working Group on Land Transport Security (IWGLTS)” were established as a result of the “International Security Ministerial Conference” that was hosted by our country in 2006. As a result, information regarding land transportation security is being shared, and cooperation is being reinforced between various countries. In addition, G8, IMO, ICAO and APEC have joined the discussion on transportation security and measures are being conducted with regard to international cooperation and harmonization of security policy.

¹ The behavior of receiving new inspections in the case where some of the parts of the automobile are uninstalled or removed, then put back and the automobile is passed to the user after received the automobile inspection certificate

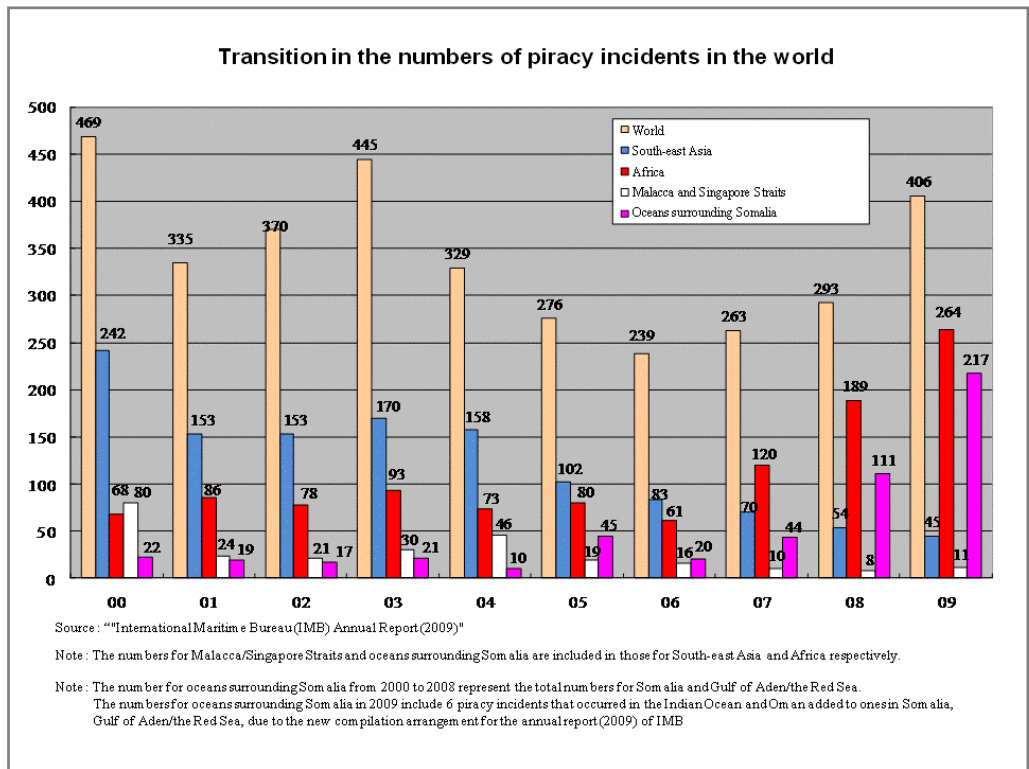
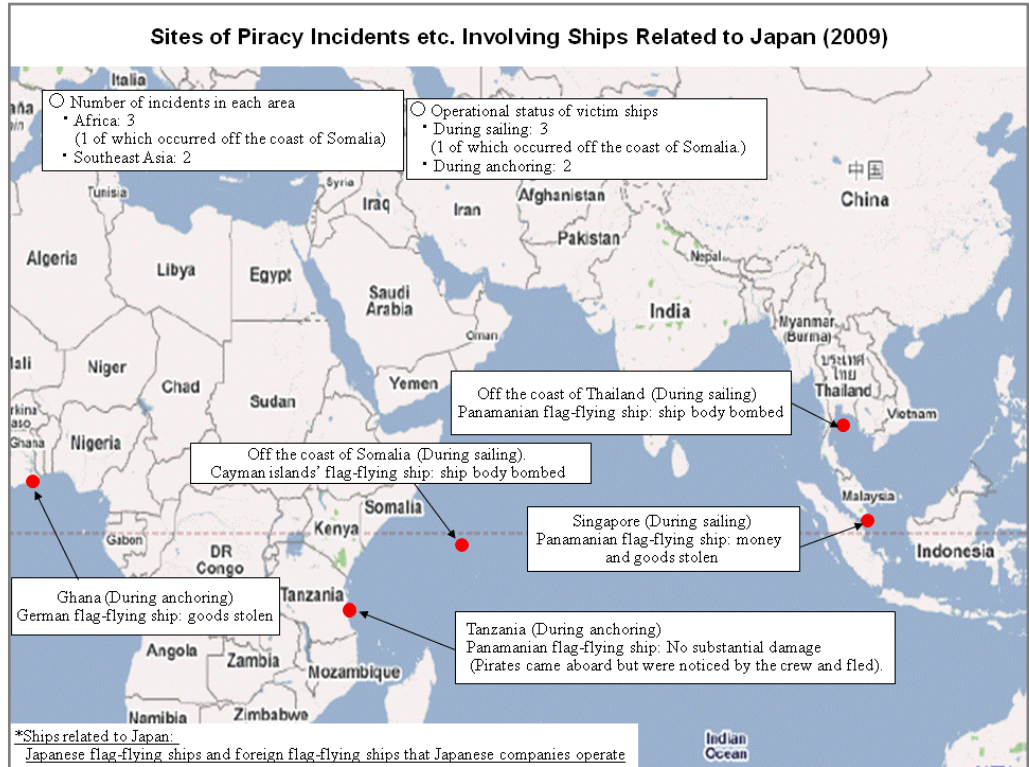
2) Measures against piracy

Since 2008, incidents of commercial ships being attacked by pirates with military equipment has been rapidly increasing. In FY 2009, the number of piracy incidents in the same waters doubled. In 2009, as a result of the current situation and in view of the content of the United Nations Convention on the Law of the Sea, Japan approved the “Law on Punishment of and Measures against Acts of Piracy” and has defined piracy as a crime in our country. Based on the new law, from July 2009, navigating ships are being escorted by a convoy of Japan

Maritime Self-Defense Forces. MLIT is also contributing internationally to foreign ships by acting unitarily as an escort to protect Japan-related ships in particular.

In addition, Japan Maritime Self-Defense Force ships are dispatched to Somalia by explicit orders based on this Act. In order to execute policing actions appropriately against piracy including arrest and criminal procedures, Japan Coast Guard is providing 8 Coast Guard Officers on the convoy. Japan Coast Guard is providing support to improve the ability of the coast guard organizations

of corresponding coastal countries by inviting officials of the coast guard institutes of the coastal countries surrounding Somalia (e.g. Yemen) for maritime law enforcement training course through the JICA programs. With regard to measures against piracy in South-East Asia, assistance is being provided for human resource development, and expertise and experience sharing through cooperative training by patrol ship dispatches and implementation of training from 2000. As a result, the occurrence of piracy has been reduced in peak periods from 242 to 45 in 2009. Which is an 80% reduction.



Column – Measures against Piracy in Aden Bay

In June 2009, the New Foundation Act was established. Presently, marine security actions are being carried out to escort and protect ships from piracy. With regard to piracy in Aden Bay, MLIT is intensifying its cooperation efforts with related ministries and government offices (e.g. the Ministry of Defense) to ensure the safety of Japan-related ships and Japanese ships. In addition, MLIT is also taking measures to contribute internationally by newly designating foreign ships as escort targets. From July 2009 to March 2010, 627 ships and over 13,000 crew staff were escorted.



3) Safety measures in ports

With regard to ASEAN countries, training is being implemented regarding safety measures in ports by holding training sessions and conferences with experts. In addition to cooperating with the United States and Australia, measures for improving safety levels in ports continues to progress.

(2) Strengthening and carrying through measures against terrorism in public transportation

MLIT has developed a plan for initial actions when serious incidents happen. Furthermore, MLIT has been carrying out thorough instructions on measures against terrorism and regular inspections during peak seasons and taking the following measures.

1) Promotion of measures against terrorism on railways

In addition to increasing security cameras in railway stations and strengthening patrol security, MLIT is also formulating the establishment and utilization of “security levels” and the “guideline on measures against railway terrorism. At the same time, focusing on “Visible Security and User Participation,¹” measures against terrorism are being pushed forward.

Implementing Anti-Railway-Terrorism Measures that center on “Visible Security and Passenger Participation”

(Photo 1) “Railway security Poster” posted in the station premise.

(Photo 2) “Terrorism Prevention Partner Badge” carried by station staff etc. “Terrorism prevention cooperators badge”

(Photo 3) Displaying tickers at station platforms to request cooperation in finding suspicious articles

(Photo 4) Patrols by station staff and security guards

(Photo 5) Highly visible warning messages such as “Surveillance camera in operation” are displayed

(Photo 6) Utilizing the emergency call button when finding suspicious articles (When to use it is specified as “When finding suspicious articles” in the instruction.)

¹ “Visible Security” – measures involving setting security in a distinguishable form for working out terrorism prevention
 “User Participation” – measures involving increasing public awareness of terrorism prevention for strengthening monitoring networks against terrorism

2) Promotion of measures against terrorism on ships and in ports

Based on the “Act on the Assurance of the Security of International Ships and Port Facilities”, security assurance is being carried out through ship inspections and through site inspection and PSC towards the approval of international ship security regulation, international ship security regulation, regulations regarding ships entering port, international ships and international port facilities. Additionally, considering the site inspection results of international port facilities and overseas security levels, further security measures are being carried out.

3) Promotion of measures against terrorism in aviation

In order to ensure the prevention of terrorism for aircrafts, our country has moved to a new aviation security system since April 2005, mainly in terms of security screening for passengers and baggage, the security improvement of aircraft and airport security reinforcement. Moreover, the aviation security system is being strengthened according to international standards prescribed by the Convention on International Civil Aviation. Under such circumstances, in order to deal with cases of terrorism and illegal intrusion both inside and outside our country, as well as to prevent liquid explosives being carried onboard, the regulation of the liquid substances being carried out onboard for international flights is being implemented. Moreover, the construction of guardrails and pickets for risky spots of car intrusion in every airport are being promoted, as well as fences for preventing human intrusion. In addition, the installation of sensors has also expanded in airports to detect intruders quickly when there is an intrusion. Aviation security measures are being pushed forward continuously and strongly.

4) Promotion of measures against terrorism in automobiles

As measures against terrorism during peak seasons, instructions are being given to related business operators on the implementation of in-car inspections, patrol reinforcements inside and outside offices and garages, dispatch of security staff to major bus stops, etc.

5) Promotion of measures against terrorism in important facilities

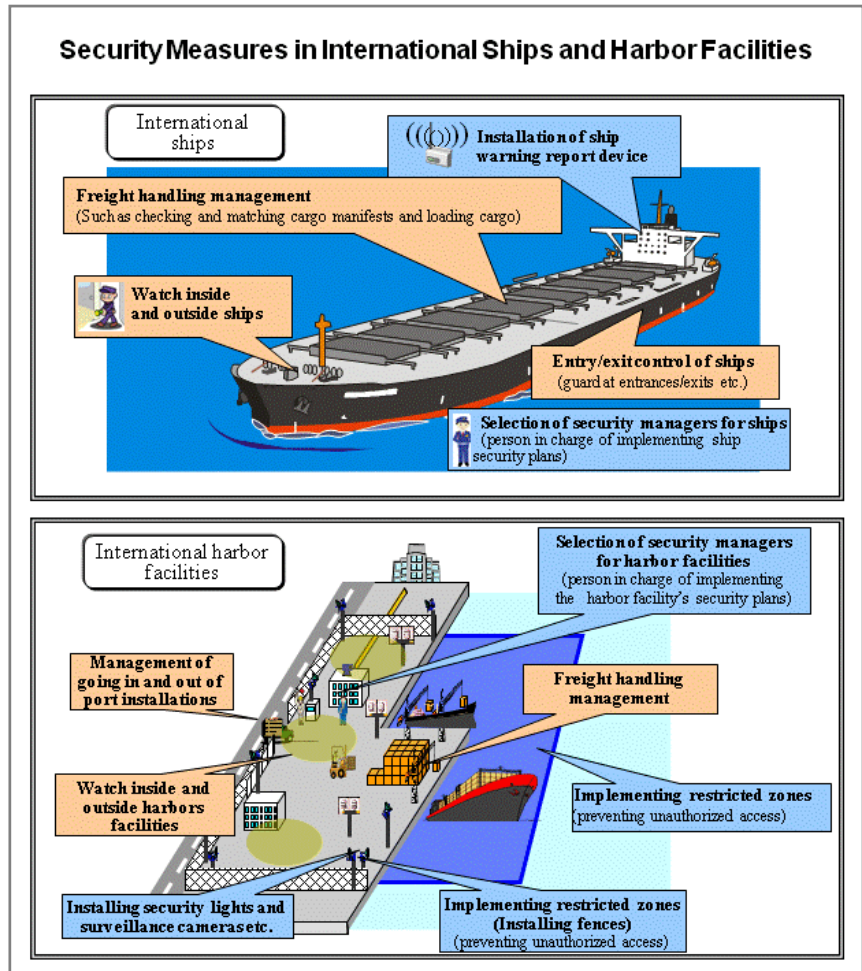
At related river facilities, special attention is being paid to suspicious substances during river inspections and patrols, as well as to strengthen the entrance locks in dam management offices and embankment-monitoring passages. For related road facilities, in order to pay special attention to suspicious cars and substances, patrols on expressways and direct-controlled roads are being strengthened, and rubbish bins are removed or integrated. In national government parks, patrol reinforcement and actions calling for attention (e.g. notices) are being carried out. On construction sites, actions calling for attention (e.g. signboard installation) are being carried out.

(3) Preventive measures against crimes regarding automobiles

In order to prevent the illegal acquisition and abuse of the Certificate of Particulars of automobiles, application procedures of certificate issuance have been made stricter in November 2007. As a principle, it is obligatory to clearly show not only the automobile registration number but also the frame number of the automobile.

(4) Compatibility of security and efficiency in logistics

After the 9/11 Attacks, the security reinforcement of international logistics is being requested. On the other hand, there have been concerns about the negative effects on logistics smoothness, which may be induced by security reinforcement. Therefore, ahead of developed countries and international institutes, measures for realizing the compatibility of security and efficiency in



logistics are being carried out, such as the formulation of guidelines relating to the C-TPAT¹ of America and the AEC System² of the World Customs Organization (WCO).

(5) Information security measures

Due to the increase in IT dependency of social economic activities on the whole, the importance of measures towards information security is also increasing. Based on the policy of the “Information Security Policy Conference”, MLIT is also pushing forwards various measures including preventive measures for information leakage, the formulation of guidelines on preventing business suspensions due to MLIT information security measures and IT hindrance, and information security measures relating to major infrastructures (railway, airways, and logistics). Furthermore, MLIT is also endeavoring to prepare for cyber attacks targeting MLIT and its administered businesses, to develop activation system etc.

2. Establishment of an Emergency System For Disasters

When there is an occurrence of accidents and disasters including accidents causing large group of fatalities and injured persons on ships, aircraft and railways and oil leakages from ships, taking disaster conditions into consideration, the disaster control headquarters of MLIT (such as the emergency disaster control headquarters of the government when there is a large-scale accident and damages especially in transportation) is setup for collecting information, carrying out comprehensive arrangement of emergency disaster controls with the related administrative institutes, and implementing quick and accurate disaster control.

Regarding measures against marine accidents and disasters, at the same time as securing the action system of patrol ships and aircrafts as well as preparing disaster relief and equipment, cooperation with related institutes is being strengthened through the implementation of cooperative training etc. In addition, regarding polluting accidents caused by oil and harmful liquid substances, the corresponding relief and equipment are enhanced and a system that is able to take action quickly and effectively is strengthened. At the same time, the preparation and provision of the environmental preservation information of coastal water for oil prevention and removal are necessary.

3. Strengthening the Coast Guard System

(1) Strengthening and enhancing the business system

At the same time as developing the urgent and systematic replacement of decrepit and old patrol ships and aircraft and enhancing the sophistication of their functionalities, a system is being built for collecting, analyzing and evaluating information obtained by the patrol unitarily, and the efficient and mobile utilization of patrol forces is being worked out. Moreover, in order to strengthen the emergency system against distant waters and serious incidents, Shikishima level patrol ships equipped for damage control and prolonged operations is being developed. Moreover, in order to secure a 24 x 365 real-time response system, on top of those 62 sections already introduced to the system, another 25 sections in the country adopted numerous crews in FY 2009, aiming for “0 vacant patrol ships”.

(2) Promotion of measures against terrorism

As preventive measures against terrorism, the required security through patrol ships and aircraft is being carried out towards important facilities including the coastal facilities of the United State Forces, nuclear power plants, petroleum storage facilities etc. Especially for the security of nuclear power plants, information sharing and cooperative training with related business operators, police etc are being implemented. In addition, at the same time as implementing security in passenger ship terminals during peak periods (e.g. golden week and new year’s eve), patrol are being carried out through terrorism-ready ships and aircraft being dispatched to the surrounding waters of South-East Asia for dealing with piracy, and the safety assurance of Japan-related ships is being worked out. Moreover, while pushing forward the development of patrol ships and aircraft with strengthened tackling abilities through intensive enhancement of functionalities, cooperation with related institutions is being strengthened and measures against marine terrorism are being taken.

(3) Promotion of measures against suspicious ships and working ships

Suspicious ships and working ships are being suspected of involvement in serious and felonious crime in our country. For revealing intentions and activity details, it is necessary to firmly stop suspicious ships and perform on-ship inspections, as well as to appropriate crime investigation (e.g. arresting suspects) when crime is found. Therefore, to deal with suspicious ships and working ships, police institutions (i.e. the Japan Coast Guard) is the first party to take action with the cooperation of related ministries and government offices.

With reference to past cases of suspicious ships and working ships, the Japan Coast Guard works out the enhancement of the bulletproof function of patrol ships and aircraft as well as the development of weapons and patrol ships with high-speed and are high-functional. Based on the common action manual drawn out with the Ministry of Defense, cooperative training with the

¹ The system offers priority in terms of customs to import business operators (from America) who have been recognized as taking high-level security measures.

² Customs recognizes the importers and exporters that are AEOs (Authorized Economic Operator) because they take high-level security measures in the supply chain, and also the system grants benefits such as simplification of customs procedures.

Japanese Self-Defense Forces concerning information sharing at the early stages and measures against suspicious ships are being carried out.

(4) Promotion of measures against marine crime

The increase in malicious and tricky illegal fishing, marine environment related crime (e.g. illegal waste disposal), and violation of the maritime related ordinance are the characteristics of recent marine crimes, including consecutive cases of large-quantity stimulant smuggling, the crime of using diving equipment and catching all the fish that are protected and reared by local fishers etc. Such marine crimes are under an unpredictable situation. Therefore, the Japan Coast Guard is strengthening monitoring and regulation through the efficient and effective utilization of existing forces of ships and aircraft, as well as close cooperation of related institutions. Additionally, those felonious crimes happening in the country that are related to drugs, guns and foreigners are considered to have been initiated by international criminal groups. Therefore, it is necessary to prevent those crimes entering the country as well as to increase the exposure level through the collection and analysis of information on the crimes, the reinforcement of monitoring and regulation, etc. At the same time, effective measures against smuggling are being taken, such as information sharing between the related institutions of our country (e.g. police and customs) and foreign countries (e.g. China, Korea, the Philippines and Russia).

4. Preservation of the Marine Interests of our Country

(1) Security activities for preserving marine interests

In the water surrounding our country, incidents threatening our marine interests have been happening, such as resource development in the East China Sea by China, the Senkakushoto territories declaring activities by the activists of China and Taiwan, and the marine investigation activities in the East China Sea without our country's agreement. In order to ensure the sovereign power of our territorial waters, the guarding of the waters is firmly implemented. In addition, best efforts are being made toward the preservation of our marine interests through carrying out the monitoring activities of resource development activities that expand outside territorial waters in exclusive economic zones and marine investigation activities.

(2) Promotion of hydrographic surveys in the territorial sea and EEZ around Japan and unification of marine information

In Japan's territorial sea and EEZ, there still exist sea areas without sufficient survey data. In these areas, the Japan Coast Guard is carrying out hydrographic surveys to intensively collect data of the bathymetry, the crustal structure and the territorial sea baselines that contribute to safe navigation, preserving marine interests, maintaining basic information for marine development and so on. Moreover, as a part of the measures according to the Basic Plan on Ocean Policy and under the integrated coordination of the cabinet secretariat, by getting the cooperation of the related ministries and government offices, the "Marine Information Clearing House"¹ has been built in the Japan Coast Guard for collecting, administering and unitarily providing the existing marine information provided by different institutes. The information has been utilized on the Internet since March 2010.

(3) Measures to establish the outer limits of the continental shelf

In November 2008, in accordance with the United Nations Convention on the Law of the Sea, the Government of Japan submitted information on the limits of the continental shelf beyond 200 nautical miles from the Japanese territorial sea baselines to the "Commission on the Limits of the Continental Shelf (CLCS)" and the CLCS started examination of Japan's submission in September 2009. Under the leadership of the Headquarters for Ocean Policy in the Cabinet, the Japan Coast Guard is dealing with the examination by the CLCS, by cooperating with other ministries concerned.

(4) Preservation of Okinotori-shima

Okinotori-shima is located at the most southern part of our country. It is an extremely important island as it is the interest basis of the exclusive economic zone that is over the country's total area (around 400,000 km²). Therefore, considering the importance in national land preservation and utilization, overall measures are taken by the direct administration of the country and possible utilization measures are being reviewed on the basis of this.

5. Protection of the lives and properties of citizens

(1) Measures against the issue of North Korea

In response to the firing of ballistic missiles and the announcement of nuclear experiments by North Korea in July 2006 and October 2006 respectively, ship entry from North Korea has been prohibited based on the "Act on Special Measures concerning Prohibition of Entry of Specified Ships into Ports". In April 2009, having considered the international environment, the effective period of the measure was extended to 13th of April 2010. In order to firmly execute this measure, the Japan Coast Guard has been carrying out the verification of information on the entry of North Korean ships. Furthermore, in order to secure the effectiveness of measures for ship entry control against North Korea according to the United Nations Security Council Resolution 1874 adopted after the North Korea nuclear experiment of May 2009, the "Act on Special Measures concerning Cargo Inspections etc. Pursuant to the United Nations Security Council Resolution 1874 etc." was submitted to the 173rd Diet

¹ Marine Information Clearing House - <http://www.mich.go.jp/>

Meeting.

(2) Measures against violent attacks through the Civil Protection Plan

MLIT, the Geographical Survey Institute, the Japan Meteorological Agency and the Japan Coast Guard have prescribed the “Civil Protection Plan¹” based on the “the Law concerning the Measures for Protection of People in Armed Attack Situations, etc” and the “Basic Guidelines for Protection of the People”, which describe the measures for evacuation, rescue and damage minimization during violent attacks. In response to the request from local governments, MLIT coordinates with designated public institutions in order to provide sufferers support such as transportation. The Japan Coast Guard also carries out search and rescue activities and also provides transportation for sufferers and emergency supplies when the designated public institutes cannot achieve sufficient activities.

6. Measures against Pandemic Influenza

Recently, Avian Influenza has been spreading, especially in South-East Asia and fatal cases caused by human infection are being reported. It is feared that this unusual virus variation of human-to-human infection will spread internationally and that it has the social effect of serious health damage. Under such circumstances, a strain of pandemic influenza (A/H1N1) was found in Mexico in April 2009. In May, it was spreading within Mexico and the World Health Organization (WHO) announced that the warning level for the strain of influenza was raised to Phase 6, which indicates “pandemic”. As a measure against this pandemic, MLIT established action headquarters and compiled infection prevention measures, as well as taking measures towards the administered parties, encouraging them to plan action manuals

Additionally, as a measure against Avian Influenza (H5N1) from birds, the measure promotion headquarters and the “Action Plan on the MLIT measures against pandemic influenza” are being established. Moreover, in December 2009, the “MLIT plan on business continuity for pandemic influenza” was formulated, which prescribes the appropriate operation system during the occurrence of influenza.

The Japan Coast Guard has also established the “Pandemic Influenza Preparedness Action Plan of Japan Coast Guard”. In addition, the “Japan Coast Guard business continuity plan for pandemic influenza” was laid down.

Furthermore, the Policy Research Institute of MLIT conducted research on preventive measures against the spread of pandemic influenza infection in railway transportation in cooperation with the related institutes and economic organizations.

¹ It was changed to the “Civil Protection Plan of MLIT, Japan Tourism Agency” from the same MLIT plan when the Japan Tourism Agency was established in October 2008.

Chapter 7: Creating and Preserving a Beautiful and Favorable Environment

Section 1 – Promotion of Measures against Global Warming

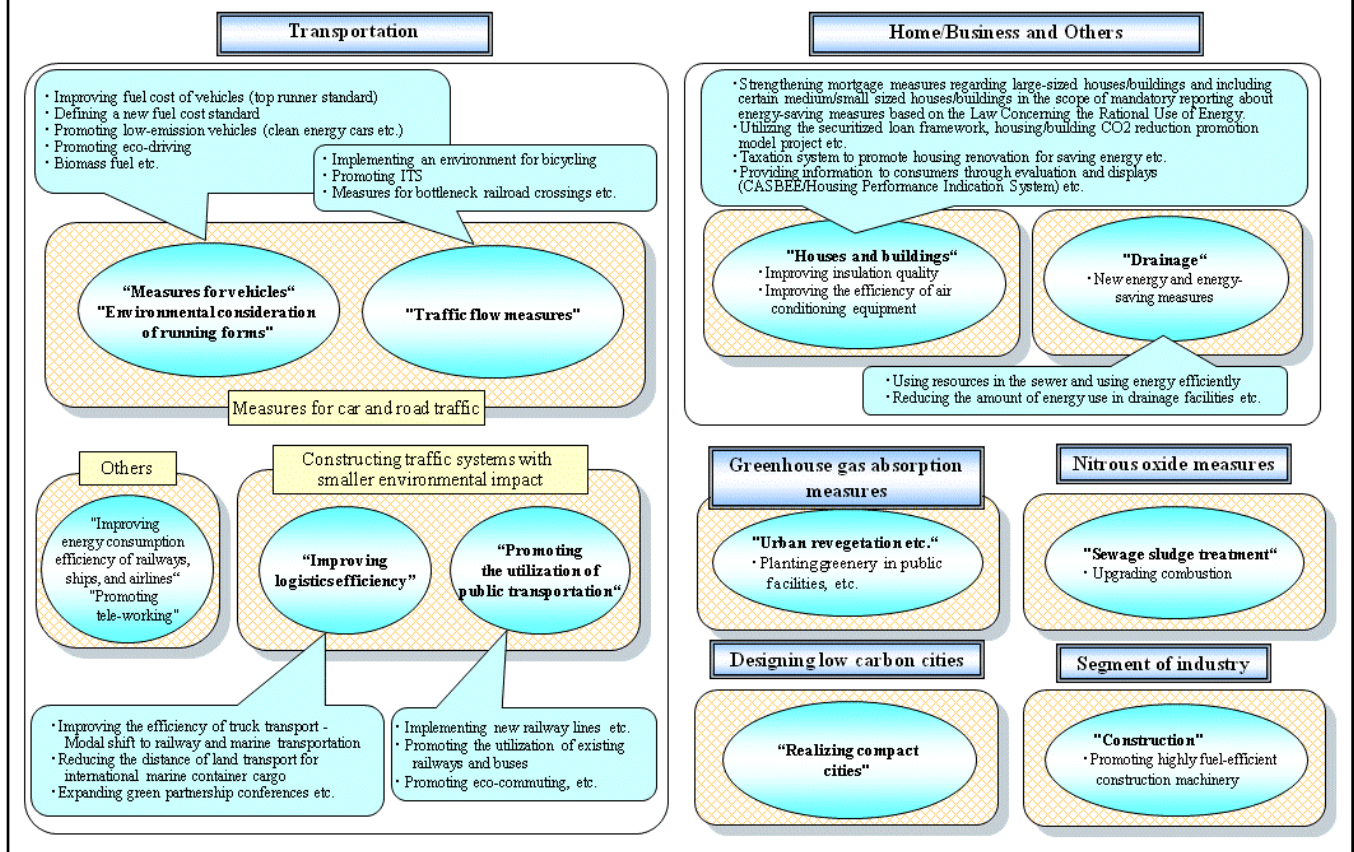
1. Implementation of a Target Achievement Plan on the Kyoto Protocol

In 1997, the United Nations Framework Convention on Climate Change Conference of the 3 Parties adopted the Kyoto Protocol, which obligated our country to reduce greenhouse gas emissions (e.g.CO₂) by 6% below FY 1990 levels between FY 2008 – FY 2012.

For achieving this target, the target-achievement plan (the Cabinet revised all on 28th March 2008) on the Kyoto Protocol prescribes the target value for each division such as transportation and social divisions (family and other business divisions), as well as pushing forward the following measures in order to make doubly sure to achieve the reduction target.

- The transportation division carries out 1) measures for individual automobiles and development of an environmentally-friendly running style; 2) measures against traffic flow; 3) the efficiency enhancement of logistics; 4) the promotion of using public transport; 5) the improvement of energy-consumption efficiency of railways, ships and airways.
- In the aspect of residential housing and construction in social divisions, the enhancement of heat-insulating functionality and the efficiency of appliances (e.g. air-conditioning) is being carried out.
- For realizing in compact city formations, city greening measures such as new energy and energy-saving measures in sewerage, as well as the maximization of burning effects and greenhouse gas absorption.
- The popularization of low energy-consuming construction machinery in the industrial division is being pushed forward.

Measures against Global Warming Conducted by the Ministry of Land, Infrastructure, Transport and Tourism



Besides, the support on the CDM Project¹ approved in the Kyoto Protocol (the setup of a window for application and discussion and the implementation of investigations for forming cases) is being carried out. The trial implementation of emissions trading in the local integrated market, which the Headquarters for the Promotion of Measures against Global Warming determined in October 2008, is being worked on. According to the reported figure² of FY 2008, our county's greenhouse gas emission is 12 billion and 82 million tons, which is 1.6% more than the standard levels prescribed in the Kyoto Protocol. At the same time, to push forward the measures for reducing it to 6%, measures are being reviewed further for achieving the mid-term target of reducing greenhouse gas emissions to 25% of 1999 levels in 2020, presupposing that all the major countries construct a fair and effective international framework, and are eager to achieve the target.

2. Measures in the Transportation Division

The CO₂ exhaustion from the transportation division is 20% of the country's total, which was 2.35 billion tons according to the reported figure of FY 2008. It is the first time that the reported figure was under the rough target (2.4-2.43 billion tons) of FY 2010 stated in the target-achievement plan. Therefore, measures are being pushed forward for further reducing emissions.

(1) Measures for individual automobiles and development of an environmentally-friendly running style

1) Improving the fuel cost of automobiles

The formulation of top-runner style³ fuel cost standards based on the "Act on the Rational Use of Energy" and the publication of automobile fuel costs are being carried out. Among gasoline vehicles manufactured in FY 2008, about 80% of vehicles achieved the fuel cost standards of FY 2010, and the average fuel cost figure increased by 34% when compared with that of 1995. In 2007, the fuel cost standards of FY 2015 were formulated. Moreover, the review of new fuel cost standards for 2020 has started and it is aiming to finish in spring 2011.

2) Measures for prompting exhaust gas reduction and the improvement of fuel cost functionality

In addition to the newest exhaust gas standard value, automobiles are also required to reduce harmful substances. According to the reduction level, a low-exhaust emitting vehicle certifying system is being implemented. In addition, in order to enable consumers to identify and select automobiles easily, the evaluation and publication system of automobile fuel cost functionality for promoting low fuel cost vehicles is being implemented. Moreover, the label of low exhaust emitting certified level through those systems is stuck on the vehicles that are certified as "2010 low fuel cost certified vehicle".

3) Promotion and popularization of environment-compatible vehicles

Reducing the tax rate for automobiles that are excellent in reducing exhaust emissions and fuel cost functionality, the greening effects of increasing the automobile tax rate and the special measures of automobile acquisition tax are applied to those automobiles after a certain period from new registration. Through technology development and product sales efforts of automobile manufacturers, and the increase in concern for the consumer environment, the number of registered automobile tax greening target vehicles is about 41% (1.18 million units) of the total number of new registered vehicles.

Furthermore, in the taxation scheme revision of FY 2010, target vehicles were added partially regarding the specific exhaust functionality established in the taxation scheme revision of FY 2009, the weight tax of automobiles equipped with low fuel cost functionality, as well as the time limit exemption and relaxation measures of the automobile acquisition tax (so-called "eco-car tax reduction"). At the same time, regarding the automobile weight tax, greening is being carried out through setting numerous stages of tax rates according to the vehicle's environmental burden.

Moreover, from the viewpoint of measures against global warming and air pollution in metropolitan regions, compressed natural gas (CNG) automobiles, hybrid cars and electric automobiles are being introduced, led by the business operators of trucks, buses and taxis. At the same time, as it is necessary to realize measures for environment and economy effectively, support is provided to the replacement and purchase of environment-compatible vehicles for automobile transportation business operators until the end of September 2010 through the supplementary budget of FY 2009.

4) Development, practicality enhancement and application of environmental development of next-generation low-pollution vehicles

Concerning next-generation low-pollution vehicles such as non-contacting electric hybrid cars that have replaced large diesel vehicles and drastically increased in terms of environment functionality, verification projects are being implemented for carrying out running evaluation under actual operating conditions and practicality enhancement is in progress. Moreover, aiming to realize regional development for using environment-compatible vehicles easily (e.g. electric buses and ultra-mini mobility) from FY 2009, a research institute was established. Regarding fuel cell vehicles, other than participating actively in the formulation of integrated global standards in the World Forum for Harmonization of Vehicle Regulations (UNECE/WP29), contributions are being made to formulate this as soon as possible.

¹ In the Kyoto Protocol, it prescribes 1) A Clean Development Mechanism (CDM); 2) Joint Implementation (JI); 3) Emission Trading as the soft measures for achieving the target of greenhouse gas emissions targets in developed countries.

² The Ministry of the environment released figures in April 2010. The "reported figure" is the list of greenhouse gas emissions of our country that was submitted to the convention bureau. It may be changed if there is any correction of various yearly statistics figures or revision of calculation algorithms.

³ The method prescribes standards by taking the most excellent fuel cost functionality and the future prospect of technology development into consideration among existing productized goods.

5) Popularization and promotion of eco-drive

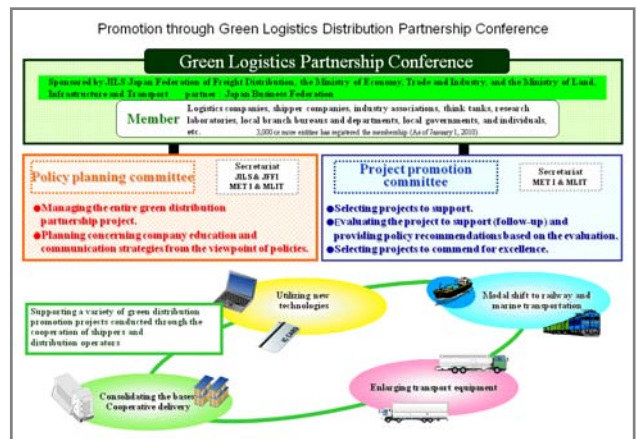
According to the “Eco-Drive Popularization and Action Plan Promotion” formulated by the Eco-Drive Popularization Communication Committee, the active publicity of the eco-drive promotion month (November) was also carried out in FY 2009. In addition, the Eco-Drive Management System (EMS)¹ popularization project is being implemented for supporting the total introduction of EMS machineries towards automobile transportation business operators.

(2) Smoothing the traffic flow

As the improvement of effective fuel cost due to the increase in running speed resulting from the improvement of traffic flow smoothness can help to reduce CO₂ emission from automobiles, the development of highway networks (e.g. belt highway) and multi-dimensional traffic junctions is being pushed forward. At the same time, measures against traffic flow are also being implemented such as the adjustment of automobile demand, the promotion of Intelligent Transport Systems (ITS), measures against bottle-necks at railroad crossings, etc.

(3) Efficiency enhancement of logistics

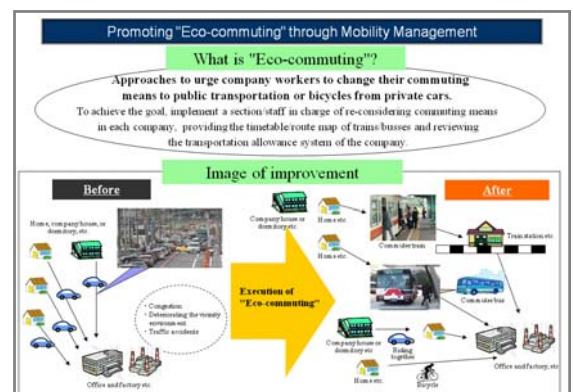
The vehicles with the maximum sharing rate (in terms of ton per kilometer) among the transportation methods in domestic logistics are trucks, which is over 50% of all logistics transport. The raw unit of CO₂ emission² for trucks is greater than that of mass transportation institutions (railways and domestic marine transportation) and it is 36% of the CO₂ emission in the transportation division combined with freight and passenger transportation (Railways and domestic marine transportation is about 8% in total). In order to support domestic logistics and to control CO₂ emissions, it is necessary to work out the reduction of the fuel cost for trucks, improvement of transportation efficiency, private truck diversion and utilization of transportation methods with good energy-consumption efficiency. For pushing forward the modal shift of railway and marine transportation, other than implementing railway transportability strengthening projects between northern Kyushu and Fukuoka as well as in Sumidagawa Station, the promotion of energy-saving ship construction is taken as part of the invigoration measures of domestic marine transportation. In addition, the popularization of the “Eco-Rail Mark (62 items of 50 products and the number of contributing enterprises certified was 59 as of February 2010) and the “Eco-Ship Mark” (27 freight owners and 30 logistics business operators are certified) is being worked on. Moreover, the land transportation distance reduction of international freights is being worked out through the development of international container terminals etc.



MLIT is cooperating with the Ministry of Economy, Trade and Industry, logistics organizations and freight owner organizations for holding the Green Logistics Partnership Conference and pushes forward logistics efficiency enhancement through strengthening cooperation with logistics business operators and freight owners. Furthermore, for projects for CO₂ emission reduction that are being implemented through partnerships with logistics business operators and freight owners, support (240 projects at the end of FY 2009) is being provided and public relations through the Minister Recognition Award for excellent project is being carried out. Moreover, the logistics cooperation efficiency enhancement promotional project was established from FY 2009 and support is being provided to measures for enhancing logistics efficiency.

(4) Promotion of public transportation use

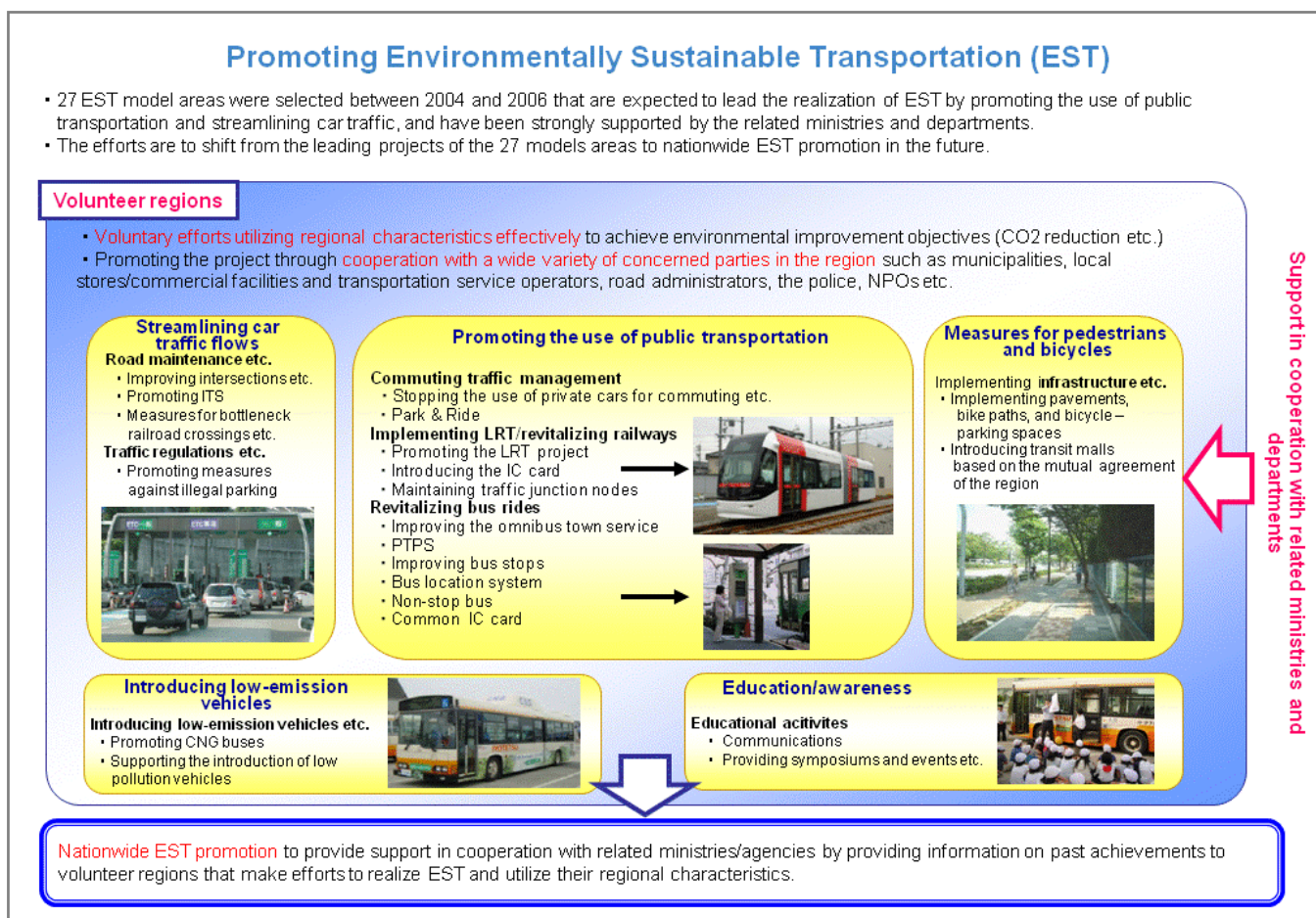
The shift from private cars to public transportation can reduce the running of automobiles and there is also the need for pushing forward promotion from the view of measures against global warming. Therefore, other than improving public transportation convenience through the promotion of digitalization (e.g. the introduction of an IC card) and the improvement of transfers, the eco-commuting company certifying system was established in June 2009 and the measures for eco-commutation in different enterprises (companies) was pushed forward as a national activity. Additionally, the commuting transport greening promotional program was unfolded not only for companies but also for the invigoration of regional public transport. Moreover, through the “Environmentally Sustainable Transport (EST) Model



¹ Measures for implementing systematic and continuous eco-drive, and performing evaluations and instructions for eco-drive unitarily in automobile operations

² The quantity of CO₂ emissions when transporting 1 ton freights per 1 km

Business”, support is being provided to regional measures regarding the bus location system and IC card, as well as to work on the popularization of EST to the whole country.



(5) Improvement of the energy-consumption efficiency of railways, ships and airways

1) Promotion of railway system development for contributing to environmentally-friendly energy saving

Energy-saving trains (e.g. hybrid locomotives) and technology development (e.g. highly efficient electric facilities) are being pushed forward.

2) Integrated measures towards the greening of marine transportation

The “10 mode index for ships¹⁾” is the ship net fuel cost indicator. Applying it to domestic marine transportation, promoting energy-saving ships²⁾ through introduction of new technology, and unifying measures including modal shift promotion, super eco-ship popularizing promotion and the marine environmental initiatives³⁾ in overseas transportation, the CO₂ emissions reduction from marine transportation is being pushed forward and the support on energy-saving ship construction is also being incorporated in the supplementary budget of FY 2009.

3) Measures for CO₂ emissions reduction in aviation

Eco-airport development is being pushed forward through the introduction of Area Navigation (RNAV) routes for enabling the shortening of flight times and routes and UPR types for the flight pilot to fly at the most efficient ideal height; the sophistication of aviation safety systems such as raising the category of the Instrument Landing System for changing the destination (divert) due to heavy fog and reducing air waiting; and the application promotion of the Ground Power Unit (GPU) for aircraft. Moreover the regulating institutions and Airlines are cooperating and reinforcing international measures, such as participating in the “Asia and Pacific Initiative to Reduce Emissions” (ASPIRE) that aims for efficient navigation.

¹⁾ The index for evaluating the energy-saving functionality at the design stage of the ship in actual seas without an integrated evaluation index

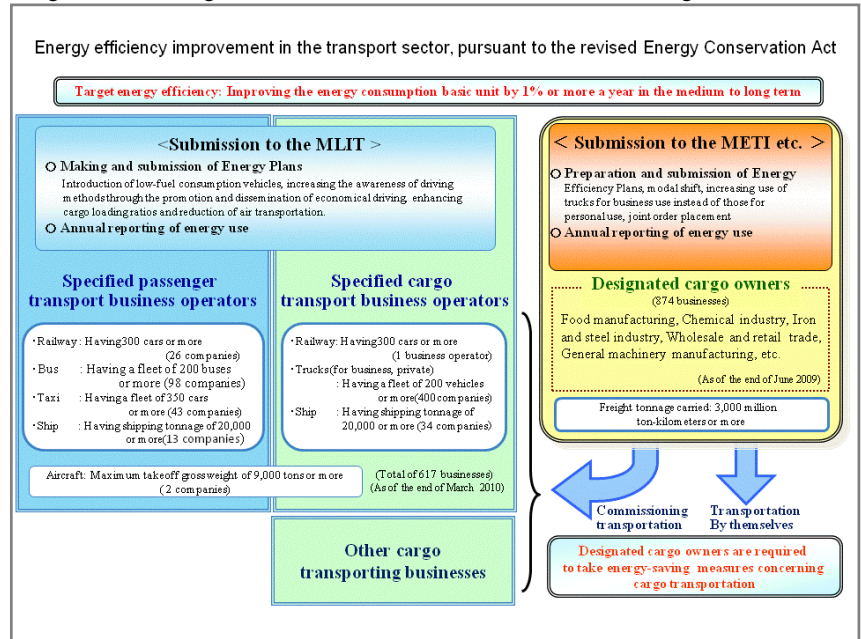
²⁾ A next generation domestic ship with excellent environmental functionality and economic ability, which contributes to the reduction of CO₂, NO_x and fuel cost by adopting an electric propulsion system.

³⁾ The measures package for reducing CO₂ emissions from international marine transportation through the promotion of ship technology research and development, international standardization and talent training for new technology popularization

(6) Promotion of measures taken by citizens and private business operators

In order to further advance measures against global warming, it is essential to obtain the understanding from different national sections and take action actively. Therefore, the popularization of carbon offset in traffic and tourism is being promoted. Moreover, in order to have medium and small-size business operators push forward environmentally-friendly business activities voluntarily, the “Green Business Certifying System” is being carried out by business operators based on the Green Business Promotion Manual on each business including automobiles, marine transportation, warehouses and port transportation.

In addition, for the purpose of further controlling energy consumption in transportation, based on the Energy Conservation Act, the designated transportation business operators and freight owners are obligated to submit regular reports, as well as to carry out measures for energy-saving.



3. Measures regarding Residential Housing, Buildings, Sewerage and Urban Greening

(1) Enhancement of energy-saving functionality in residential housing and buildings

The energy consumption of private (commercial and residential) sectors is 30% of total energy consumption and is still tending towards an increase. Therefore, the enhancement of energy-saving functionality in residential housing and buildings is an important issue. The Act on the Rational Use of Energy obliges the owners to submit a report about energy-saving measures, whenever they build, extend or renovate large-scale housing or buildings in order to promote rational use of energy of housing and buildings. Moreover, the popularization of further energy saving is being worked out through the establishment of the Housing Eco-point Scheme.

Furthermore, the Housing Performance Indication System for showing residential housing energy-saving functionality in an understandable way, and the Comprehensive Assessment System for Built Environment Efficiency (CASBEE) for the assessment of comprehensive environmental functionality for livability improvements of residential housing and buildings, as well as burden reduction to the earth’s environment, are being developed and popularized. Additionally, at the same time as taking supportive measures (e.g. reducing the interest) utilizing the framework of securitization business of Japan Housing Finance Agency, the development and popularization of energy-saving design and construction technology is being worked out through support on leading technology development by private business operators and holding training sessions for designers and construction technicians.

Moreover, in order to promote energy-saving among existing housing and commercial buildings, several tax reductions have been initiated such as income tax and fixed property tax reductions concerning specific energy-saving renovations in existing housing, and exemption from corporate tax for special depreciation and tax reduction concerning specific energy-saving equipment installation in commercial buildings.

(2) Promotion of environmental burden reduction in government facilities

For the development of government facilities, development in consideration of the reduction of environmental burden is being pushed forward in the life cycle from planning to construction, utilization and retirement. For the renewal of decrepit equipment in existing facilities, renovation in consideration of reduction of environmental burden is being implemented and the appropriate utilization management is performed thoroughly for further pushing forward greening.

In addition, based on the “appropriate utilization and development in the future Kasumigaseki district” (the infrastructure council report of June 2008) etc., CO₂ emissions reduction is being further pushed forward through the adoption of environmental technology in the reconstruction of the Cabinet Office Building and the renewal of decrepit equipment or facilities in the Central Government Building in order to realize a “low-carbon society in Kasumigaseki”.

(3) Measures against global warming in sewerage

Based on the target achievement plan on the Kyoto Protocol, energy-saving measures by high-efficiency machinery introduction, and new energy measures by effective utilization of sewage sludge derived fuel and biogas, as well as the reduction of CO₂ caused by high-temperature burning of sewage sludge are being pushed forward. The CO₂ reduction target

stated in the target-achievement plan for sewerage is 2.16 million tons.

(4) Promotion of measures regarding CO₂-sinks through urban greening

For firmly accomplishing the target achievement plan on the Kyoto Protocol, based on the Master Plan on Greenery stipulated by municipalities for conserving and creating green areas comprehensively, the development of urban parks, greening in roads, rivers, ports, sewerage treatment facilities, residential housing and government facilities and also private land greening through the Authorized System of the Greening Facility Development Plan are being actively pushed forward.

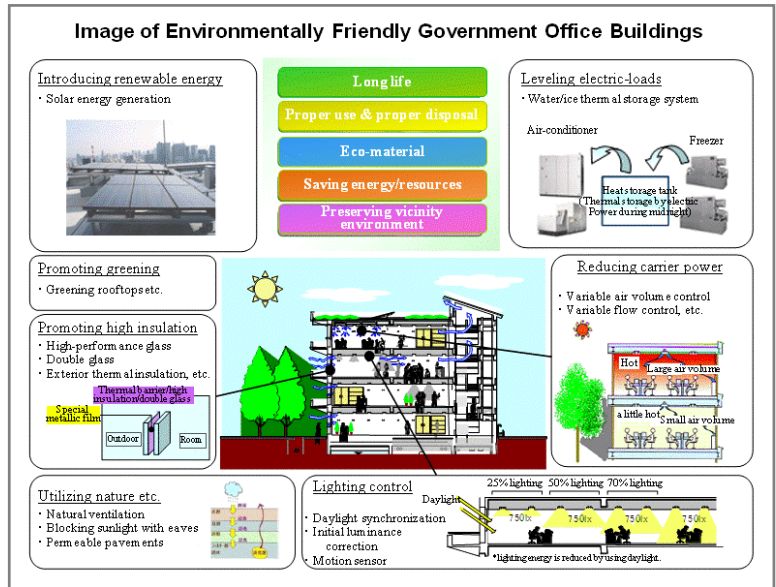
(5) Measures against global warming in urban district development

1) Urban district development

Urban districts with a high energy demand density are unitarily utilizing the urban district development projects and the eco-district network development projects in order to push forward CO₂ reduction in terms of energy usage.

2) District development through utilization of environment-compatible vehicles

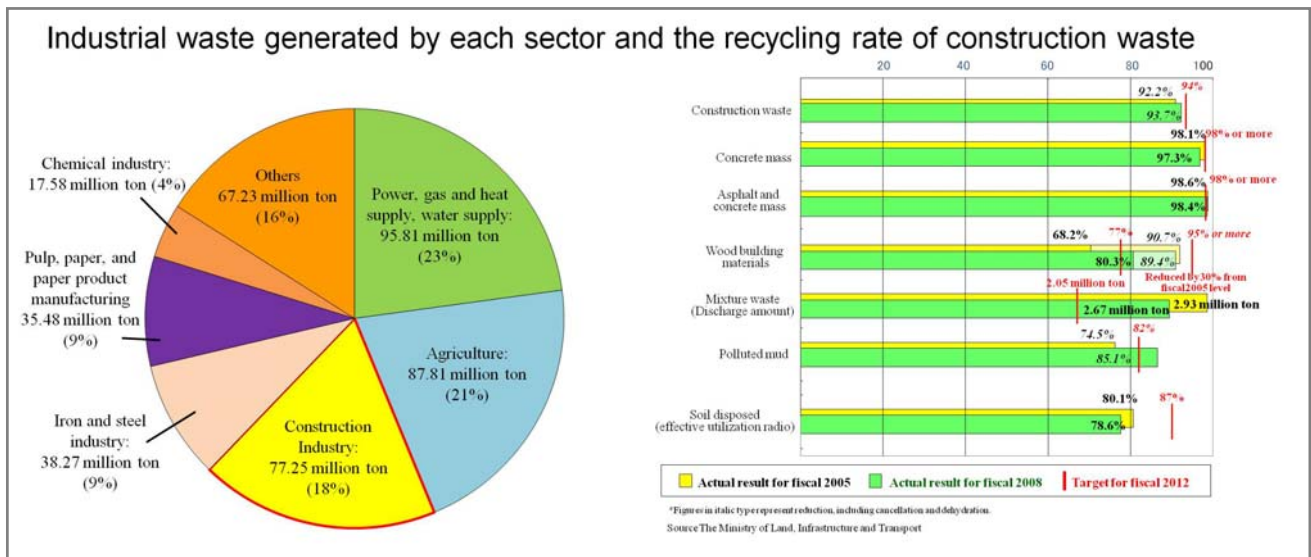
In order to realize environmentally-friendly urban transport, utilize environment-compatible vehicles (especially electric buses, electric automobiles and ultra-mini mobility) and promote low-carbon district development, in FY 2009, the government, in cooperation with regional public organizations, pushed forward measures for formulating the technology standards of district development through utilizing environment-compatible vehicles.



Section 2 – Promotion for the Formation of a Recycling Society

1. Promotion of Construction Recycling

The proportion of construction refuse is about 20% of the total quantity of industrial refuse, about 30% of the quantity of



final disposal and about 80% of the illegal dumping quantity. Therefore, promotion of recycling is an important issued for controlling these. In FY 2007, the quantity of construction refuse was 77 million tons in the country. Although the recycling rate for FY 2008 (93.7%) was higher than that for FY 2005 (92.2%), it is still necessary to continue the effort for ensuring the high level of the recycling rate.

Regarding the refuse of sewage sludge, its quantity is also about 20% of the industrial refuse quantity and the quantity in FY 2007 was 80 million tons. Therefore, the reduction of this refuse and the promotion of recycling are being worked on.

(1) Promotion of construction recycling

The whole country is endeavoring to ensure the appropriate implementation through simultaneous patrols of the “Construction Material Recycling Act”.

Furthermore, having received the “evaluation and review on the implementation of the construction recycle system”, the Ministerial Ordinance of the Construction Recycle Act and part of the executing regulations were revised in February 2010. The pre-implementation report and building demolition procedures have to be made in more detail and the promotion of construction recycling is underway. Items with a low recycling rate, insufficient efforts on controlling and improving recycling quality, and the large numbers of illegal dumping cases are still issues surrounding construction recycling. Therefore, in order to work on the awareness improvement of related parties, strengthened cooperation and unified development with other environmental policies, the “2008 Construction Recycling Promotion Plan” is being pushed forward. The plan stated the basic concept of construction recycling market cultivation concentrating on the creative efforts of private parties. In addition, in order to understand the actual situation regarding the utilization of construction by-products, refuse, recycle and final disposal, the investigation results of the actual situation surrounding construction by-products carried out in 2008 were summarized.



(2) Promotion of reducing and recycling sewage sludge

At the same time, to push forward the utilization of wooded area and farming land sewage sludge and energy (the recycle rate for FY 2007 was 77%), electricity generation using biogas produced during the handling process, fuel generation for natural gas automobiles, energy usage through sewage sludge derived fuel, and the collection and utilization of phosphorus from sewage and sewage sludge are also being carried out. Moreover, to further push forward the usage of sewage sludge, the popularization of developed technology through the Lead to Outstanding Technology for Utilization of Sludge Project (LOTUS Project) is being promoted.

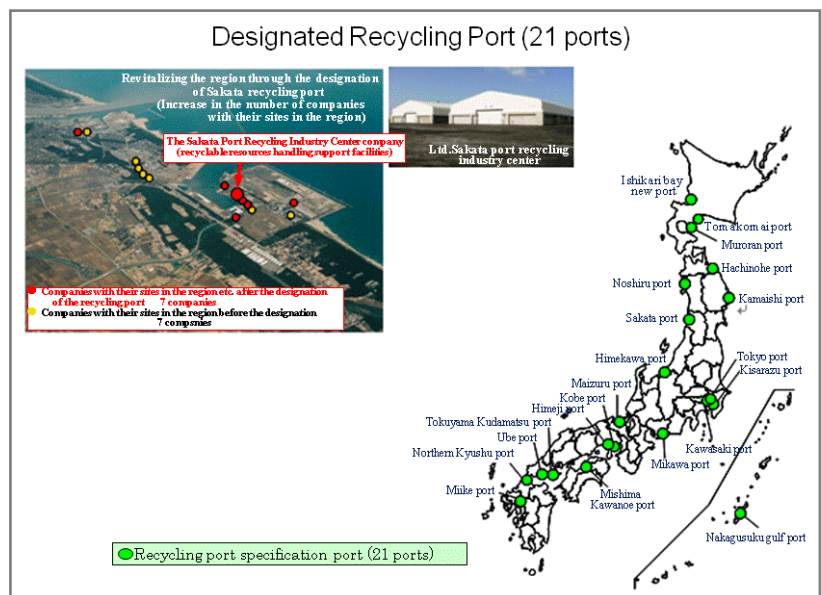
(3) Measures against residential and construction refuse

The recycling rate of used construction woods produced as refuse during construction is about 90% including the reduced part. 1) Support for measures regarding recycling by regional public organizations; 2) recycling measures in residential housing and buildings according to information related to the deteriorated measures of the Housing Performance Indication System are being pushed forward.

2. Construction of a recycled resources logistics system

(1) Formation of a recycled resources logistics network by utilizing marine transportation

In order to form a “circle” of recycled resources for constructing a recycling society, 21 ports in the country are designated as central logistic ports for recycled resources (recycling ports) as wide-ranging recycling facilities located in ports. Additionally, the development of recycled resources logistics supporting facilities, promotion of government-private cooperation, the formation and publicity of a recycled resource application promotion manual on the usage of recycled resources are being carried out. Moreover, in March 2009, with the assistance of the recycling port promotion committee, the marine transportation verification trial for recycled resources was carried out in 8 ports in the country. Through the trial, the usage standards for safely and effectively performing recycled resource transportation in recycling ports are being formulated.



(2) Systematically ensuring marine refuse processing facilities

As there is difficulty to ensure final disposal processing facilities for refuse in in-land areas, in order to construct the necessary landfills for the final disposal of general refuse in ports after carrying out the appropriate recycling, the usage and reorganization of ports are in progress and marine processing facilities are being developed. In particular, in Osaka Bay, general refuse is being received from Tokyo, Osaka, 4 prefectures and 175 municipalities based on the Osaka Bay Phoenix Project.

3. Recycling of automobiles and ships

(1) Construction of an automobile recycling system

Based on the “Act on Recycling, etc. of End-of-Life Vehicles (Automobile Recycling Act)”, the registration should be struck out according to the “Road Transport Vehicle Act” after confirming the decomposition of end-of-life automobiles, and the automobile weight tax refund scheme for end-of-life automobiles is also being implemented and the promotion of the appropriate handling of end-of-life automobiles and the prevention of illegal disposals is underway.

Moreover, based on the 13th article of the Automobile Recycling Act, discussion concerning this system was carried out in the joint meeting between the Industrial Structure Council and C and the report regarding the evaluation and review of the implementation progress of this system was summarized.

(2) Recycling of ships

Large-scale ship recycling¹ (ship recycling) has been implemented mainly by developing countries (e.g. Bangladesh and India). The problems of repeated accidents with casualties and ocean pollution have been observed in ship recycling facilities. In order to solve these problems, our country lead the discussion centered in the International Maritime Organization (IMO). As a result, in May 2009, “the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009” (Ship Recycling Convention) was adopted in Hong Kong. This convention obligated the surveying of and the holding of certificates for ships and ship recycling facilities respectively and required the prohibition of the use of asbestos and PCB when building new ships. In addition, our country is leading the formation of various guidelines for supporting the implementation of this convention.

In Japan, in order to construct an environmentally-friendly ship recycling system for an advanced country, various measures are being carried out, including verification experiments for dismantling ships, the evaluation on environmental effects and business value, research and investigation of new technology methods, etc.

On the other hand, privately-owned pleasure boats are mainly by FRP (Fiber Reinforced Plastics). The social problem of illegal disposal is occurring because there is currently no appropriate disposal rule established. Therefore, in order to push forward the appropriate disposal of FRP ships, recycling technology was established and measures have been carried out for forming processing rules. Through these actions, the Japan Boating Industry Association is working on FRP ship recycling nationally under the support of MLIT.

4. Promotion of Material Procurement that Contributes to Environmental Burden Reduction

(1) Measures in green procurement²

Due to the partial change to government basic policy based on the “Act on Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Green Purchase Act)”, the “Policy for Promoting the Procurement of Eco-Friendly Goods” was formulated. Based on this policy, in terms of materials, construction machineries, construction methods, and target objects used in public construction, the procurement of eco-friendly goods is being pushed forward actively.

(2) Promotion of wood use

Wood is a material that needs less processing energy than other materials comparatively and it is an environmental-friendly material capable of contributing to the prevention of global warming if it is used in the long-term and at various stages. Therefore, wood usage is being promoted in public construction. Moreover, in the procurement policy based on the “Green Purchase Act”, the procurement of public construction that uses wood cut for spacing between trees is being actively pushed forward. Furthermore, technology development, supporter development and the promotion of wooden residential housing utilizing regional wood resources are being actively worked out.

Section 3 – Preserving and Regenerating a Beautiful and Abundant Natural Environment

1. Measures for conserving biodiversity

(1) Measures for the 10th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10)

In the 10th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10) held in Nagoya City in Aichi Prefecture in October 2010, one of the major subjects is the revision of the strategic plan for the convention

¹ The end-of-life ships are decomposed and most of the steel from the ships is reused.

² This means the green procurement of eco-friendly goods prescribed in Article 2 of the Green Purchase Act

(formulation of post-2010 targets¹). In January 2010, Japan has proposed the incorporation of promotional measures to the convention office, which are the promotion of conserving, restoring and creating good quality rivers, harbors and coastal environments as well as wooded areas and water side spaces in urban districts.

(2) Revision of national biodiversity strategy

Due to the implementation of the Basic Act on Biological Diversity that obligated the nation to formulate a national strategy in 2008, “the 3rd National Biodiversity Strategy of Japan” formulated based on the Convention on Biological Diversity was revised. In March 2010, the Cabinet has approved the statutory “National Biodiversity Strategy 2010”.

2. Formation of Wealth and Beautiful River Environment

(1) Preservation and formation of favorable river environments

1) Promotion of diversified natural river development and natural regeneration

Taking diversified natural river development as the fundamental of river development, while ensuring the safety of flood control, best efforts are being put into preservation and creation of habitation and reproduction environments for organisms and diversified river scenery. In addition, utilizing the “guidance on river development for fishes to swim upstream easily”, the development of fish ladders is being pushed forward throughout the country. Moreover, in order to restore the original appearance of rivers with diversified natural environments, natural regeneration projects (e.g. the restoration of sand bars and marsh regeneration) are being pushed forward in 37 river systems (e.g. Kushirogawa and Arakawa) throughout the country.

Furthermore, various types of investigation and research are being carried out through the cooperation of experienced experts and different institutes, such as the riverside census and measures carried out by the Aqua Restoration Research Center with the world’s best experimental waterway (about 800m by extension).

2) Promotion of measures against exotic breeds

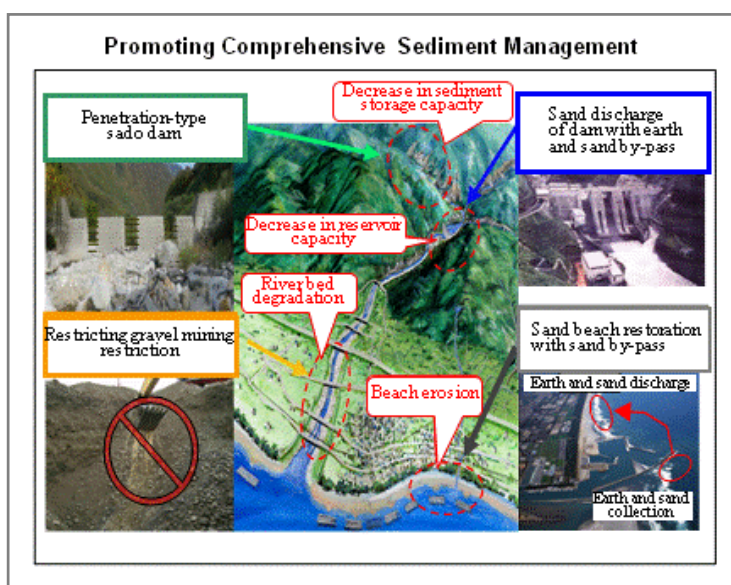
Exotic breeds are one of the great threats to the preservation of biological diversity. The regions being inhabited by exotic breeds in rivers is expanding throughout the country and it is a problem affecting the ecosystem. As a measure against this situation, the “view and sample case of measures against exotic breed in rivers” was made and measures against exotic breeds are being implemented in every region.

(2) Measures for restoring the water volume of river

For preserving a favorable river environment, it is important to ensure sufficient water volume. Therefore, the necessary flow volume is determined in the fundamental river management policy with consideration for the habitats and reproduction environments for animals and plants, scenery, and water quality and best efforts are being made to maintain the water volume. Additionally, measures for restoring clear streams in the lower water-reducing districts with dams for hydraulic power plants are being taken. Moreover, in order to preserve and improve the river environment of lower streams with dams, flexible dam management or management trials are being performed by using part of the flood control volume effectively in a range that does not affect flood control (implemented in 16 dams in the country in FY 2009). Furthermore, in urban rivers with decreased normal natural flow, the river flow volume is being restored through channeling processed water from sewage processing plants.

(3) Promotion of measures for comprehensive sediment control from mountains to coastal districts

Recently, there has been concern over the change in river environments caused by changes in sand flow and sand supply reduction to the sea, as well as the coastal erosions through changes in coastal floating sand flow being speeded up by climate change. Therefore, measures for consistent and integrated sand management from mountains to coastal districts are being pushed forward with the cooperation of related institutions. To be specific, in order to deal with the problems caused by sand flow in streams, dams, rivers and coasts, partnership reinforcements aiming to formulate the principle for business partnerships with related institutions is being worked on.



¹ In the strategic plan for the convention formulated during the COP6 of 2002, the target of “a remarkable reduction in the existing biological diversity losing rate by 2010” is stated as the “2010 target”.

(4) Environmental education on rivers

As natural spaces existing closely in the region, various activities such as environment learning and nature experiencing activities are being actively organized near rivers recently. In addition, while carrying out the promotion and information delivery of projects for children to learn and play safely by the riverside, it is also essential to let them know correct information on and the potential dangers of rivers for them to enjoy the activities safely. Therefore, cooperating with the “River Activities Council (RAC)” that was established mainly by citizens’ groups, river instructor training is being pushed forward. Moreover, in order to prevent water disasters caused by the rapid increase of water, measures for preventing water disasters are being worked out, with reference to the “Action Plan on Preventing Water Disasters caused by the Rapid Increase in Water Volume” formulated in FY 2007 and the report of the “Workgroup for Reviewing the Preventive Measures for medium and small-size rivers” summarized after the water disaster that happened in the Togagawa of Hyogo Prefecture in July 2008.

- **Waterside Rediscovery Project for Children**

Citizens’ group, education-related parties and river administrators are cooperating to register watersides for children and provide various forms of support in the Waterside Support Center for Children. As of March 2009, 282 spots are registered.

- **Waterside schools for fun**

In spots registered as watersides for children, riverbank development is being carried out for resolving the inclination of embankments and safely going close to the river. As of March 2010, 279 spots were registered.

- **Investigation of organisms in rivers**

Through investigating the organisms living in rivers and carrying out river water quality examinations, people are able to commune with the river nearby to raise concern over rivers. As of 2008, 75,938 people participated.

3. Development and Preservation of Marine and Coastal Environments

While protecting the coast from tidal waves, tsunamis and waves, it is also important to preserve the habitats and reproduction environments of organisms, while also taking into consideration the scenery and ensuring appropriate usage. Therefore, coastal development and preservation that have a balance between “protection”, “environment” and “usage” is being pushed forward. To be specific, in FY 2009, the eco-coast project is being implemented in 15 spots of the existing coast with ensured protective functionality for improving existing coastal preservation facilities while considering the effect on ecosystems, through the participation of local people.

As the problems of coastal functionality degradation due to floating waste (including from overseas), the deterioration of environments (including ecosystems) and scenery, and damage towards ship safety navigation assurance and the fishing industry, are growing increasingly serious, based on the “Act regarding the promotion of marine litter processing relating to the preservation of favorable scenery and coastal environments for protecting beautiful and abundant nature (Act for the Promotion of Marine Litter Processing and Future Measures)” released and executed in July 2009, close cooperation with the related institutions is being worked out from now on, and effective measures against floating waste are being pushed forward.

Moreover, in order to urgently handle the large-scale coastal floating waste that is a functional hindrance of coastal preserving facilities, the “project on emergency measures for handling large-scale floating woods related to disasters” is being pushed forward for the related parties of “numerous coasts” across wide areas to carry out unified and efficient handling of floating waste.

4. Greening of Harbor Administration

(1) Basic direction of the port environmental polity in the future

The ports of our country are bearing the responsibilities of being logistics spots, for industries and for life for now and the future. In order to realize sustainable development, degraded and lost natural environments are being restored even just a little and it is important to take the environment into consideration regarding all functionalities of ports. Therefore, the “Greening of Port Management” that adopts a close relationship between the preservation, regeneration and creation of environments and the development and usage of the ports are in progress. Moreover, in order to deal with the current global warming problem, the measures of greenhouse gas emissions reduction is being pushed forward in ports.



(2) Active preservation, regeneration and creation of favorable environments

Through the effective utilization of dredged sand and mud produced during port development for tideland creation and sand capping, the preservation, regeneration and creation of rich and natural coastal environments is being carried out. Moreover, at the same time, to develop a lively and beautiful port space, the development of water-friendly wooded areas that are compatible with natural environments is taking place.

(3) Review and enhancement of the implementation method of environmental measures

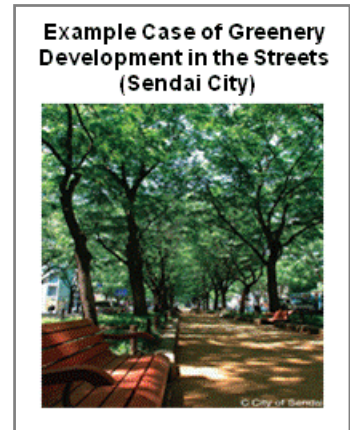
In projects on the preservation, regeneration and creation of natural environments, progress after the projects start is being monitored continuously and result-reviews and accommodating management methods are also being introduced.

Additionally, various parties (e.g. administrative institutions, research institutes and the general public) are registering environmental data and constructing a marine environment database for facilitating data sharing. Database accumulation and content enhancement are being worked out as well.

Moreover, “Coastal Natural Schools” is being established throughout the country for carrying out nature experiences and environmental education utilizing coastal natural environments.

5. Promotion of Measures for Road Greening and Natural Environments

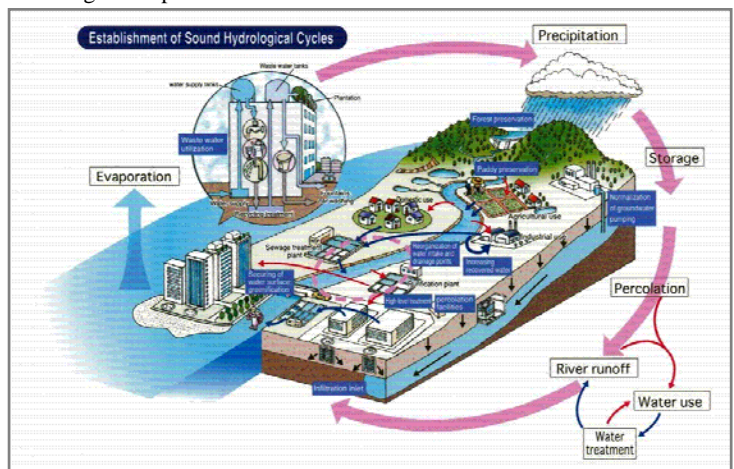
CO₂ absorption can help to prevent global warming and reduce the environmental burden. Therefore, road greening for developing favorable scenery and the creation of moist road spaces is in progress. Additionally, during road project planning, design and implementation, places with valuable natural environments are eliminated from the project as much as possible. In unavoidable situations, the effects should be minimized and alternative measures for working out the preservation and restoration of environments taken.



Section 4 – Construction of Sound Hydrological Cycles

1. Efforts for Construction of Sound Hydrological Cycles through Cooperation with the Ministries and Government Offices relating to Water

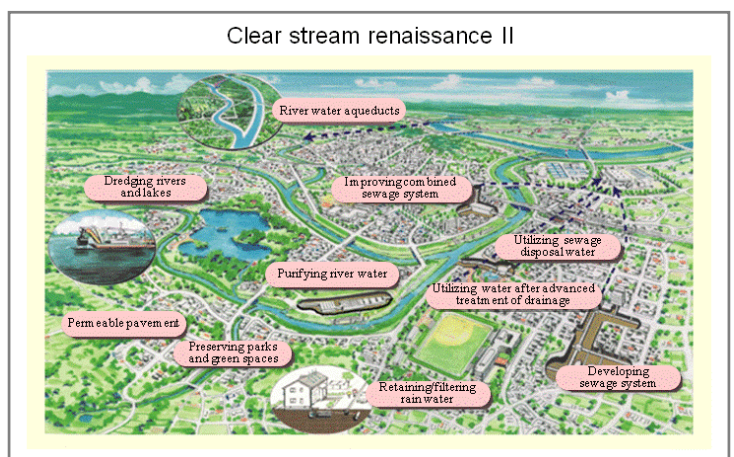
The related ministries and government communication conference regarding construction of Sound Hydrological Cycles announced the concept of the “realization of the planned development for construction of Sound Hydrological Cycles”. In order to encourage regional efforts, various forms of support are being provided with the cooperation of the related ministries and government offices.



2. Measures towards the Improvement of Water Environments

(1) Clear Stream Renaissance II

In the 34 rivers with severe deterioration of water environments in the country, municipalities actively working on the improvement of water environments, river administrators, and sewerage administrators are formulating and implementing the “2nd Phase Water Environmental Improvement Urgent Action Plan” (designated 34 districts).



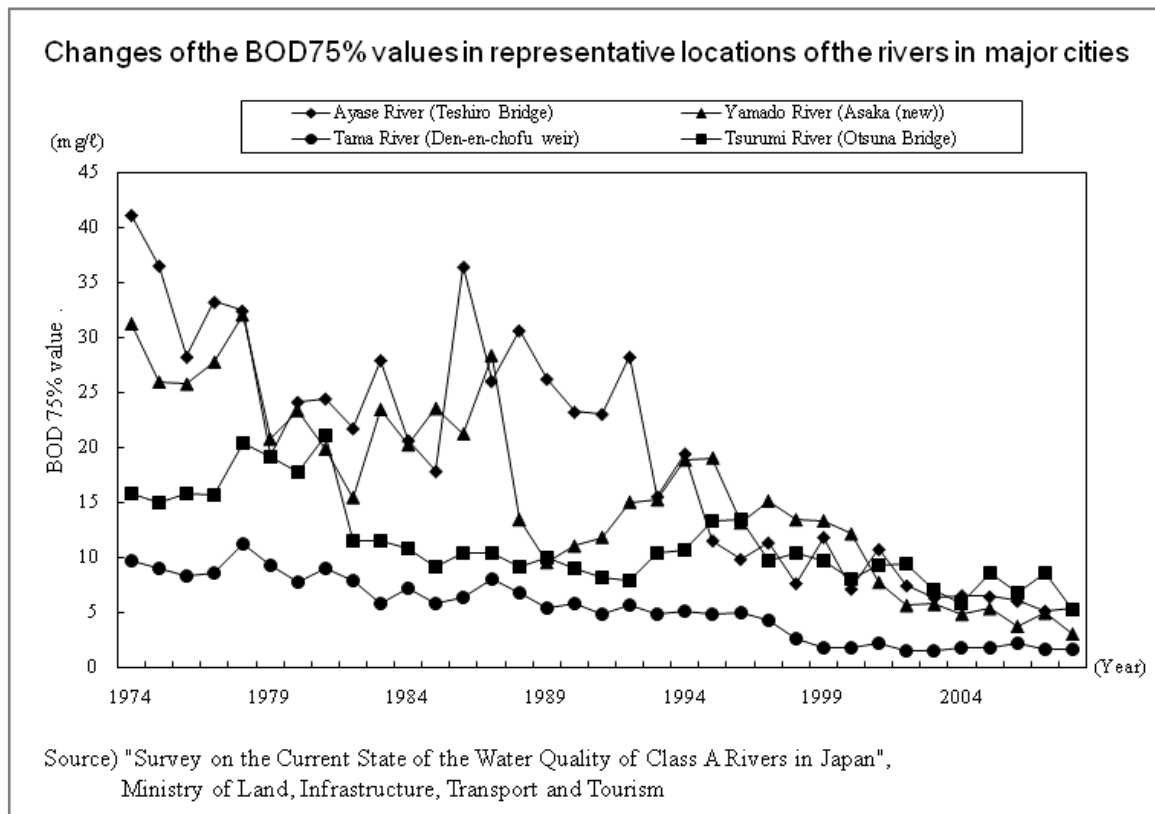
(2) Promotion of water purification

In rivers with severe deterioration in water quality, water purification including purified channeling water through integrated water system environmental development projects, integrated river environmental development projects, riverbed mud dredging, and river purification facility development are being carried out in Kasumigaura (Ibaraki Prefecture), Yamatogawa (Nara and Osaka Prefecture) etc. for ensuring clear water flow.

(3) Examination of water quality and measures against water quality incidents

In addition to the preservation and restoration of favorable water environments, it is important to carry out water quality examinations in rivers, lakes, marshes, dams and reservoirs. In FY 2008, 109 water systems of 1,105 spots were examined

- In the country's overview, the percentage of examined spots that satisfied the environmental standard of the BOD (Biochemical Oxygen Demand) value (or the COD value (Chemical Oxygen Demand)) in 2008 was 89% and it was the maximum value so far.
- Among the examined spots in rivers, the percentage of spots with good water quality ($BOD \leq 3.0 \text{ mg/l}$) for the habitation of salmon and sweetfish was 94%.
- The environmental standard items (e.g. 26 items such as arsenic) regarding the health protection of humans: except for some items and spots the environmental standard is being met.
- Items that require monitoring (e.g. 27 items such as chloroform): all the items and examined spots satisfy the target value except manganese.



Furthermore, in cooperation with citizens, water quality examination map formation and water organism examination are being carried out. Moreover, based on the new water quality indicator that comprehensively evaluates rivers from diversified viewpoints, the result after the implementation of cooperative examinations in top-level rivers by local people is that rivers are good places in terms of abundant contact between humans and rivers even for those lower ranking rivers in the BOD average water quality ranking.

On the other hand, the number of river water quality incidents caused by the outflow of oil or chemical substances occurring in top-level river systems was 1,454 overall in 2008. Under the background of great concern on the water quality by river users and the enhancement of information communication systems, the Communication Council of Filthy Water Quality Prevention was established in all 109 river systems throughout the country, and best effort are being made towards quick communication during incidents and the prevention of damages through building oil fences.

(4) Improvement of the water environment in enclosed coastal sea

Owing to the fact that many organic pollutants, nitrogen and phosphorous are flowing from the continent, and marine purification ability is being reduced due to the disappearance of tideland and algae habitation in Tokyo Bay, Ise Bay and Seto Inland Sea, red tides and blue tides have been occurring and the fishery industry has been adversely affected. Moreover, the problems of hindrance to ship navigation and environmental deterioration caused by floating waste are also appearing.

In order to improve such situations, measures for restoring beautiful water is being pushed forward effectively, including 1) seabed quality improvement through mud dredging and sand capping; 2) the creation of organism habitation through tidelands and algae habitation regeneration as well as the development of organism-compatible banks; 3) the collection of floating waste and oil through environmental development ships; 4) the burden reduction of pollutants flowing into the water through sewerage development.

(5) Promotion of sewerage development for improvement of the water environment

Appropriately carrying out the formulation and review of the River-Basis Sewerage Development Integrated Plan, the sophisticated processing of sewerage for the removal of nitrogen and phosphorous, which causes eutrophication in stagnant water, is being pushed forward.

Regarding junction-type sewerage, the completion of measures towards quantity and frequency control of non-processed sewage flowing from rainwater floods during rainy days is being targeted for FY 2013 for medium and small-size cities and FY 2023 for metropolises.

(6) Regeneration of water flow routes in response to regional needs

Recently, water flow to neighboring rivers and water flowing routes have increased water friendliness and purified water routes. In addition, regional needs for protecting and preserving habitats and reproduction environments for organisms and historical and cultural heritage are continuing to increase. Therefore, according to the “details of approved water usage related to environment-use water¹”, the annual approved usable water amount was approved and the approval standard was made clear for working on the regeneration of “Local Clear Streams”.

3. Cultivating Water and using Water Skillfully

(1) Stable supply of water resources

1) Ensuring the stability of water usage and invigorating water resource districts

In order to ensure the stability of water usage, it is necessary to take diversified measures according to the actual regional situation for both supply and demand. In the supply aspect, measures include the construction and management of water resource facilities (e.g. dams), and the increase in the number of water resources. In the demand aspect, measures include the enhancement of reclaiming and reusing water, and raising awareness of water-saving. Based on these measures, the Basic Plan on Water Resources Development for the Yodogawa River system was changed in April 2009. In addition, in order to alleviate the effect caused by dam construction, preserving and invigorating region with water resources, the development of living environments and industrial foundation are being carried out based on the “Law Concerning Special Measures for Reservoir Areas”.

Moreover, as measures against the risks caused by climate change to the realization of a society with a sustainable water supply and the Establishment of Sound Hydrological Cycles are being aimed at. While water-relating parties are cooperating and adjusting the unit of river basins relying on a single water system, the measures for implementing “Integrated Water Resources Management” were carried out in an appropriate order with the appropriate combination by comprehensively and unitarily considering the water volume and quality, the surface water and underground water, and normal and emergency conditions.

2) Recycling of processed sewage

Processed sewage is a valuable water resource for ensuring a stable water volume throughout the year in the city. Around 1.5% of processed sewage is being re-used for small streams, river maintenance, toilet flushing etc. Additionally, it is also being used for sprinkling roads and watering gardens, which are the measures against heat islands.

(2) Securing Safe and Tasty water

The water supply system of our country has become popular and drinkable tap water is a specialty that not many countries in the world are capable of providing. Recently, the need for safe and tasty water from citizens has been increasing further. Therefore, in order to deal with the strange smell caused by water quality deterioration and toxic substances flowing into rivers, the water from tributaries bypass the lower stream of the purification plant intake. In order to ensure tasty water supply, avoid and reduce risks in water quality, dam and river water purification in tap water source regions, popularizing promotion, the promotion of the introduction of the sophisticated processing of sewage and the improvement measures of junction-type sewerage are being implemented.

¹ The water used for the maintenance and improvement of the living or natural environment (e.g. water quality, water-friendly spaces, scenery).

(3) Promotion of measures for rainwater penetration

Recently, rainwater has not been penetrating into the ground and has been flowing into rivers within a short period of time due to the expansion of impervious areas caused by urban development in river basins. By making rainwater penetrate as much as possible, flood damages caused by heavy downpours can be reduced. At the same time, promotional tax schemes for converting facilities for storage to facilities for river-basin storage and infiltration is also being utilized and pushed forward for contributing to the cultivation of underground water and the revival of springs.

(4) Promotion of measure for underground water

As the result of the overdrawing of underground water for industrial purposes until now, the ground in the regions has sunk and underground water problems (e.g. increase in salt density of the underground water) has been noted. Based on the Summary of the Preventive Measures against Sunken Ground etc., the preservation of underground water and the enhancement of appropriate usage are being worked out in regions with wide-area underground water problems, i.e. the Nobi Plain, the Chikugo/Saga Plain and the northern part of the Kanto Plain.

(5) Promotion of the use of rainwater and recycled water

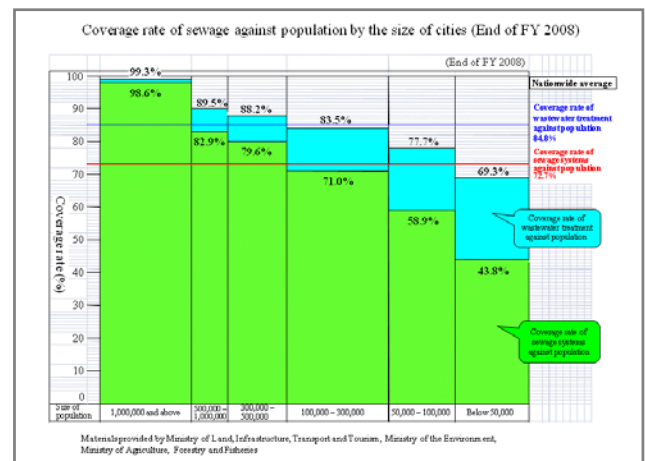
As part of the comprehensive water resources measures, the promotion of the utilization of recycled sewage and rainwater for toilet flushing, and the promotion of the utilization of rainwater and recycled water for sprinkling are being worked on. At the end of FY 2007, the number of facilities that had applied for this was 3,290 and the proportion was around 0.3% of the national total water usage. In order to push forward further utilization, the actual situation of those facilities was clarified. At the same time, information is being shared with users, including the sample usage of those facilities, the water quantity and quality of usable processed sewage water, and the points of note for usage.

4. Realization of Comfortable Life through the Promotion of Sewerage Development

Sewerage is an indispensable infrastructure for healthy urban development through sewage processing and flood control measures. Recently, it has been required to play a new role in the formation of a low-carbon recycling society and healthy water recycling.

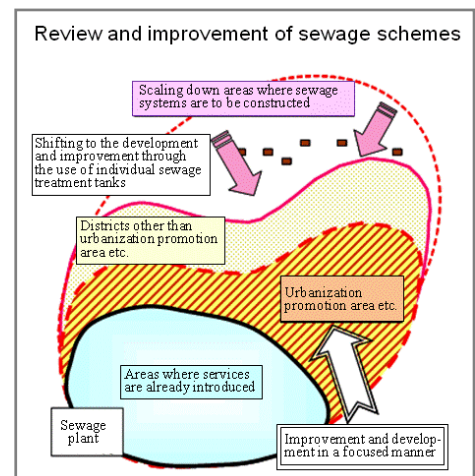
(1) Popularization of sewage processing in sewerage

At the end of FY 2008, the popularization rate reached about 73% in the national average, but there is a great difference between regions. Especially in the medium and small-size municipalities with populations lower than 50,000 people, popularization has remained at a low level of only 44%. For future sewerage development, at the same time as intensively developing population concentrating districts, efficient development according to the actual regional situation is being pushed forward and it is important to work out the correction of the differences in popularization.



1) Project cooperation for efficient sewerage processing facility development

Regarding the development of sewerage processing facilities, it is economical to use individual-processing septic tanks for general houses in low-population districts. Following the increase in population density, there has been a tendency toward the economical use of central processing sewerage and farming village drainage facilities. Therefore, for performing the development, prefectures are formulating the “Prefecture Framework” that is a comprehensive development plan on sewerage processing reflected fully in regional characteristics such as the economy and the importance of water quality maintenance. According to the recent decreasing trend in population, the immediate review of the prefecture framework is being pushed forward. Moreover, efficient development is also being actively pushed forward through introducing cooperative measures with other sewerage processing facilities (e.g. wide-area sludge processing).



2) Social trial of the project on resolving the unpopularity of sewerage

Taking depopulation and the severe financial situation into consideration, this social trial is striving for the broad introduction of new development methods that enable low cost, early and mobile development according to the actual situation of regions that have not been taking the existing technology standard. The trial is being carried out with the cooperation of local people while a committee of experts performs the functionality verification. Up to FY 2009, the social trial is being implemented in 13 municipalities. As the effectiveness of technology (e.g. the utilization of mobile handling of ground piping) was recognized, the manual on using this technology was summarized for popularization. Additionally, in order to enable the utilization of other technologies (e.g. Quick Plumping (open plumping)) by all regions in the country, verification and evaluation are being actively carried out.

Example case of social experiment
(Quick piping (open piping): Hinohara Village in Tokyo)



(2) Ensuring the sustainability of sewerage services

1) Appropriate stock management

Following the advancement of sewerage development, sewerage facilities are also expanding (the extended pipes are about 41 km; the number of processing plants is 2,000). Therefore, the appropriate management, reconstruction and renewal are important. If decrepit facilities are put aside, it may have great effects on daily life as well as social economic activities as the sewage processing function may stop. Furthermore, in FY 2008, road cave-ins due to the aging of piping facilities and erosion caused by hydrogen sulfide were found in around 4,100 spots. In order to maintain and improve sewerage function in the future and minimize or balance the necessary cost, the view of sewerage stock management was released. At the same time, from the viewpoints of “accident prevention” and “minimization of the lifecycle cost”, functional improvement (e.g. earthquake proofing improvement) is also being considered, and systematic reconstruction is being pushed forward including the measure for increasing the lifetime.

2) Strengthening the business management base

Although the operation cost of the sewerage service is covered by the sewage processing charge (except the part that should be borne by public expenses) in principle, significant cost is necessary in the early stages of the service and there is also the situation of a lack of funds structurally because of the nature of the service whereby income stabilizes with the advancement of development. Hence, it is important to look at the expenses of each service not from a short-term viewpoint but from a long-term viewpoint that considers the durability of facilities.

Therefore, according to the “Guidance for Forming a Substantial Sewerage Operation”, the measures for forming a substantial sewerage operation is being pushed forward in every municipality.

3) Promoting private commission and ensuring technical skills

Concerning the maintenance and management service of sewage processing plants, environmental development for introducing inclusive private commission¹ and measures for further promoting inclusive private commission are being implemented. Additionally, based on the request of the regional public organization, the Japan Sewage Works Agency is carrying out technical support for the efficiency enhancement of constructing, maintaining and managing sewerage facilities, the technician training of regional public organization, technology development, etc.

(3) Regional invigoration through sewerage

Through ensuring the appropriate sewage processing following sewerage development as well as the preservation and creation of favorable water environments, at the same time as carrying out promotion on regional settlements, industries and tourism,

Local revitalization and environmental education

Developing the water environment through the cooperation of citizens in the Kotehashi-dai reservoir pond



Model class at Higashi Elementary School in Kaita-cho, Hiroshima Prefecture



¹ The ordering method reflects the ingenuity of private business operators and strives for service efficiency through entrusting private business operators with details such as operation method, while imposing requirements of ensuring certain functionalities about facility management such as complying with the standard for discharging water.

sewerage is contributing to regional invigoration in various aspects through the effective utilization of sewerage resources, including creation of waterside spaces by using recycled water and sewerage facilities, the invigoration of regional activities through the maintenance and management of water-friendly spaces by local people, the upper space utilization of sewage processing plant, and regional air conditioning by using sewage heat.

(4) Promotion of environmental education in the sewerage aspect

In FY 2009, as a “Model Program on Recycling District Sewerage Environmental Education”, targeting primary school teachers, teacher training, with the purpose of forming a learning instruction plan for teaching an understanding of the role of sewerage in science and society, was organized, and the model class incorporating sewerage by a trained teacher for their own primary school was implemented.

Section 5 – Preservation of Marine Environment

(1) Measures against large-scale oil pollution

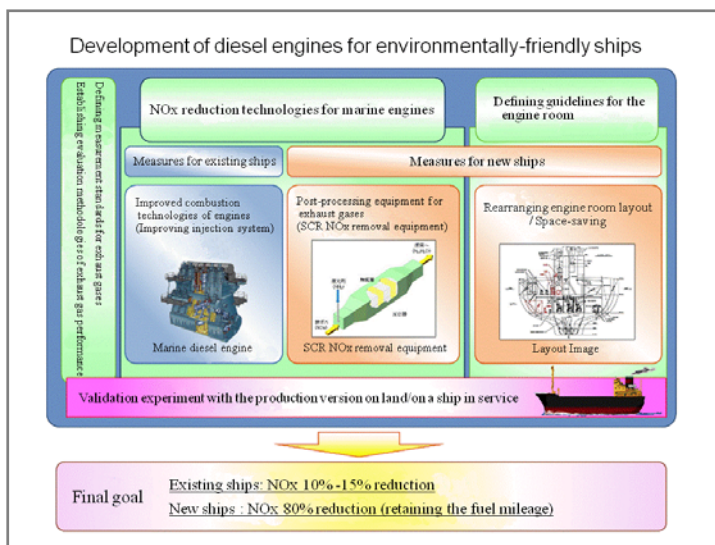
In order to eliminate sub-standard ships which are the main source of large-scale oil pollution, our country is participating actively in international measures, such as the construction of the international ship database (EQUASIS). At the same time, the inspection of ships entering Japan is being carried out and Port State Control (PSC) is being reinforced for verifying whether the ship is up to standard. Moreover, the suggestion of our country regarding the establishment of a monitoring system in the IMO Headquarters in 2005 has been approved. It is a voluntary system that countries monitor whether countries are monitoring and supervising ships from their country. Furthermore, every country is working on the promotion of the early determination of the same system.

In addition, as measures against large-scale oil pollution in and around the Japan Sea and the Yellow Sea, the international cooperation system, between Japan, China, Korea and Russia, is being strengthened through the development of “NOWPAP (Northwest Pacific Action Plan) Regional Oil and HNS (Hazardous and Noxious Substances) Spill Contingency Plan”

(2) Measures against exhaust gas emissions from ships

Although ships possess an excellent transportation advantage in terms of energy-consuming efficiency, this is also bringing problems such as nitrogen dioxide (NO_x) emission that makes up a large proportion of our country’s total; and it is important to take measures for preventing air pollution. In order to let the ship travel across different countries, it is important to comply with the international agreed regulations for ensuring practicability. Based on the “Act on Prevention of Marine Pollution and Maritime Disasters” that complies with the MARPOL Convention¹, our country is participating actively in the verification of the NO_x amount emitted by motors, the implementation of regular ship inspections, and regulation reinforcement discussion regarding gas emissions hosted by IMO.

As a leading country in the world for manufacturing ship engines, our country is reinforcing international standards to a great extent. In order to contribute to the environmental preservation of the earth, our country is pushing forward technology development of processing equipment for ship exhaust gases for greatly reducing the NO_x emissions from ships, as well as research and development of “environmentally-friendly” diesel engines through the development of combustion enhancing methods in the engine. Moreover, the ship equivalent of idling stop for changing the supply of necessary electricity from in-boat electricity generation to land facility supply is being pushed forward in order to reduce CO₂ and NO_x emissions while the ship is alongside ports.



(3) Measures against the problem of harmful aquatic organisms in the ballast water

The ballast water² of ships is infected with various organisms (e.g. plankton). It is said that by discharging the water, they may move to habitation that is not their original one and they may bring harmful effects to the ecosystem. In order to take unified regulations internationally as measures, our country is actively participating in discussions in the IMO for the implementation of the Ballast Water Management Convention³ adopted in 2004.

¹ International Convention for the Prevention of Pollution from Ships

² The seawater loaded on the ship to make it heavier and keep it steady especially when the ship carries no freight

³ International Convention for the control and management of Ships' Ballast Water and Sediments

Section 6 – Improvement of Living Environment through Preventing Air and Noise Pollution

1. Measures against the environmental problem of road traffic

(1) Measures for individual automobiles

1) Reinforcement of exhaust gas emissions regulation

Regarding measures against the exhaust gases of new vehicles, in order to further reduce nitrogen oxide and the particulate emitted from trucks, buses and passenger-carrying vehicles, the world's highest standard strict regulation (Post New Long-Term Regulation) was established in 2008. Starting from October 2009, compulsory compliance was steadily applied.

Additionally, exhaust gas measures for vehicles in use (vehicles currently being used) are being carried out based on the "Act Concerning Special Measures for Total Emission Reduction of Nitrogen Oxides and Particulate Matter from Automobiles in Specified Areas" and great efforts are being put into further measures against exhausted gas.

2) Development and practicality enhancement of low pollution vehicles

Large-scale diesel vehicle is a major source of air pollution. In order to push forward the development and practicality enhancement of next generation low pollution vehicles that are able to replace large-scale diesel vehicles (e.g. non-contact power supply hybrid cars), with the cooperation of industry, educational institutions and the government, the development of vehicles and running trials for verification are being implemented. Moreover, environmental development for popularization is being carried out, such as the formulation of technology standards on safety and environmental preservation.

(2) Enhancing the smoothness of traffic flow

1) Measures for air quality

The PM and NOX emissions levels from automobiles will increase while the frequency of starting and stopping increases, and running speed decreases. Therefore, from the viewpoint of roadside environmental improvement, measures for enhancing the smoothness of traffic flow are being pushed forward such as highway network development, measures against bottlenecks, transportation demand management (TDM) measures etc.

2) Measure against noise

The construction of low noise pavements and soundproofing walls, the development of environmental facility areas, etc. are being carried out. In addition, based on the "Act on the Improvement of Areas Along Trunk Roads", in the districts of the roadside district plan, subsidies are being provided to the construction cost of buffer buildings or the soundproofing construction costs for residential housing.

2. Environmental Measures for Airports and Surrounding Areas

The most effective measure against aircraft noise is to introduce low noise aircraft. When comparing the noise value of the existing B767 (80dBA) with the old DC8, the range over which areas were affected by noise reduced by around 90%. In regions that are still being affected by noise, although soundproofing construction is being implemented in private houses, regarding the corresponding construction, future maintenance issue remain but they are generally completed. The problem of aircraft noise is improving. In FY 2009, following Osaka International Airport, the investigation of the noise situation was performed in Matsuyama Airport for the reviewing of noise measure districts. On the other hand, in order to work out a balance between the airport and the surrounding area, it is necessary to carry on with measures for reducing noise now and in the future.

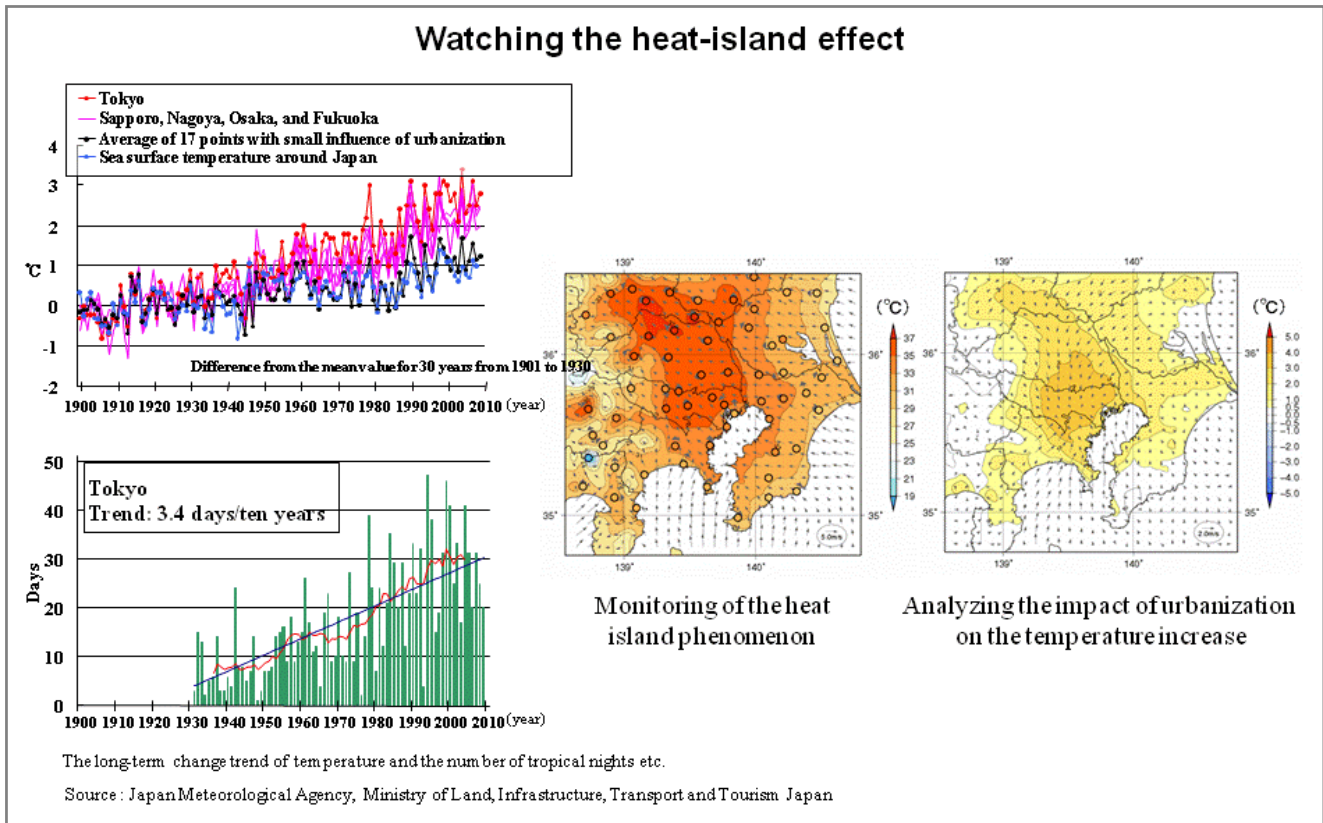
3. Measures against Railway Noise

Regarding measures against noise caused by Shinkansen, measures for dealing with noise sources are being carried out through the increase of soundproofing walls with environmental standards, the setup of pantograph-covers, the rectification of rails, etc. For situations where this is difficult to achieve by these measures, subsidies are being provided to the soundproofing construction of private houses.

In addition, regarding measures against noise caused by old railways, based on the "Guideline on the measures against noise during new construction or large-scale reform of existing railways", instructions are being given to railway business operators such that they have to remain below a certain level in terms of new constructions and make the situation better before performing reforms in the form of large-scale reforms of existing routes.

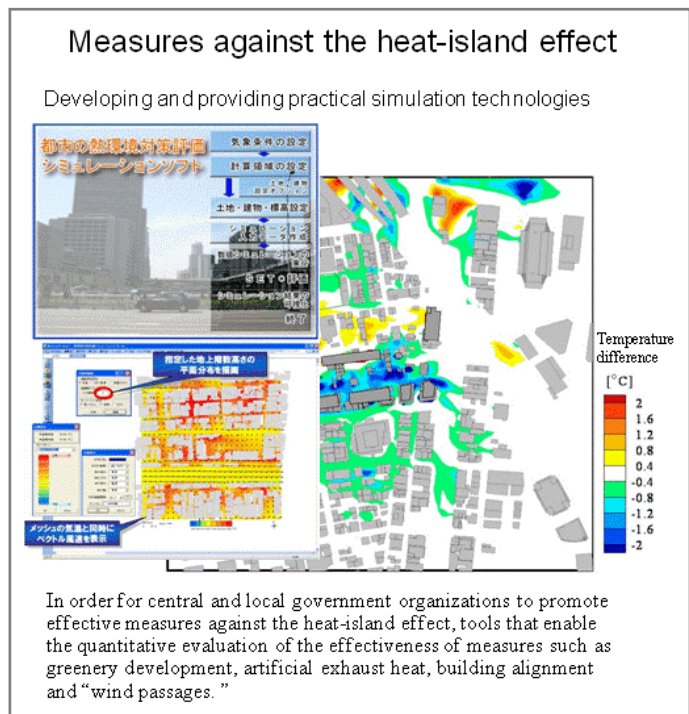
4. Measures against Heat Islands

The heat island phenomenon refers to the tendency that the temperature of a metropolitan area is higher than that of its surrounding rural areas in an island form.



In the past 100 years, the global average temperature has increased by 0.7°C while, in the metropolises in Japan, the average temperature has increased by $2 - 3^{\circ}\text{C}$. Thus it can be said that the warming trend associated with the heat island phenomenon is remarkable at a local level comparing with the global warming trend. This heat island phenomenon is said to be caused by the increase in artificial heat emission from air conditioners etc, the decrease in green areas and water surfaces, and the increase of artificial ground cover.

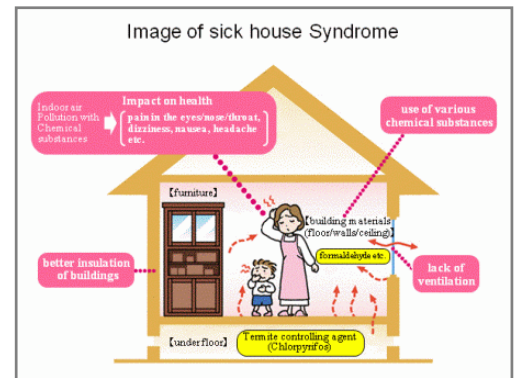
In order to push forward comprehensive and effective measures against heat island under such a situation, specific measures for the related ministries and government offices are summarized on a system basis, setting the 4 targets including the reduction of artificial heat emissions based on the “Outline of the Policy Framework to Reduce Urban Heat Island Effect,” the improvement of covered earth surfaces, the reform of urban structures and the enhancement of lifestyle. MLIT is also intensively pushing forward measures, such as the systematic assurance of green and open spaces.



5. Measures against Soil Pollution and Sick-House Syndrome

(1) Prevention of sick-house syndrome

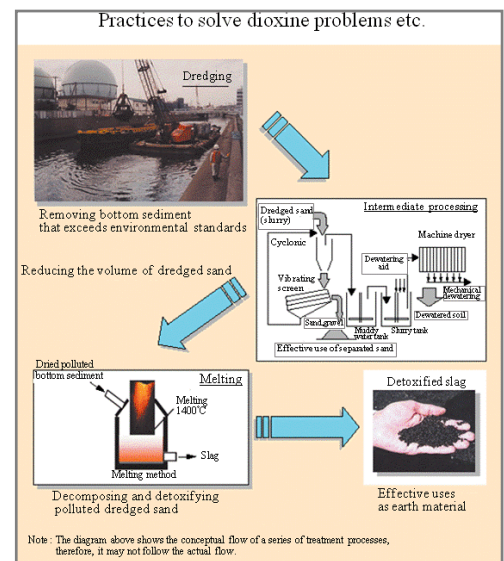
MLIT works on “sick-house syndrome” through regulations on materials and ventilation based on the Building Standard Act and Housing Performance Indication System based on the Housing Quality Assurance Act.



(2) Measures against the problems caused by dioxin

The “manual on the measures against dioxin pollution encountered in construction (tentative version)” is used as a reference in the measures for spots where problems caused by dioxins clearly exist.

Furthermore, in ports and rivers where it is confirmed that the dioxin in sludge is over the environmental standards, the basic view on the river and harbor measures is unified. Measures against dioxin are being implemented based on the “manual on the measures against dioxin at the bottom of rivers, lakes, marshes, and etc.” (Proposal) revised in April 2008 and the “technical guidelines on measures against dioxin at the bottom of harbors”.



(3) Measures against asbestos

The asbestos problem is a problem affecting human life. Now, the demolition period for buildings constructed after the 1970s in which large quantities of asbestos were imported, is coming. Therefore, it is important to take measure for preventing adverse effects.

In order to push forward the removal of asbestos in existing facilities, follow-up actions are being taken in terms of measures for removal and scattering prevention in the existing facilities administered by MLIT.

Furthermore, other than increasing the number of subsidized target buildings of the safety stock development business of residential housing and buildings, measures are being pushed forward for removing spray asbestos in existing buildings through the utilization of regional residential housing subsidies, etc.

Moreover, the revision of the Basic Act on Construction is being carried out, and the usage of spray asbestos in buildings is being regulated. In addition, in order to prevent scattering and exposure during demolition, information provision is being pushed forward, including the estimated cost reference of the spray asbestos removal work, information for identifying asbestos materials (Guidance book of asbestos construction), the formation of databases containing information on materials with asbestos, the pamphlet of measures against asbestos in buildings, etc. The necessary measures are also being pushed forward for thoroughly preventing the scattering of asbestos.

6. Environmental Measures in Construction

In order to reduce the burden on the atmosphere caused by construction, the implementation of regulations is being executed according to the “Act on Regulation, etc. of Emissions from Non-road Special Motor Vehicles” for controlling exhaust gases from construction machinery that is not running on the road. Addition, for those motor electricity generators outside the regulated types of the same Act, they are designated as construction machinery dealing with exhaust gases through the same Act with the same standards. At the same time to introduce into use in the construction of MLIT, a financial system during acquisition is being implemented. Moreover, as measures against noise and vibration caused by the construction, the designation and popularization promotion of low-noise and low-vibrating construction machinery is being worked out by the same method.

Section 7 – Observation, monitoring and projection of the global environment

1. Observation and monitoring of the global environment

(1) Observation and monitoring of the climate change

International measures against global environmental problems such as global warming are being reinforced. In addition to the measures prior and existing, the Japan Meteorological Agency (JMA) is performing the following measures according to the “Priority Measures Concerning the Future Global Environment” that was formulated and announced in FY 2008.

In order to monitor the condition of greenhouse gases, JMA observes CO₂ and other gases in the atmosphere at three stations in Japan and operates research vessels to observe these gases in the atmosphere and seawater in the northwest Pacific Ocean. It has also been observing shortwave and infrared radiation precisely at five stations in Japan since the end of FY 2009.

Additionally, observation is being carried out for monitoring the sea level rise caused by global warming and information on the long-term water level change along the coasts of Japan is being released.

Moreover, in order to monitor climate change and improve seasonal forecasts, JMA, in cooperation with the Central Research Institute of the Electric Power Industry, is implementing a long-term reanalysis project “Japanese 25-year Reanalysis (JRA-25)”, which consistently analyzes global atmospheric conditions in the past and is made available to the research institutes inside and outside the country.

Based on the observation results as above, JMA publishes the “Climate Change Monitoring Report” and the “Report on Climate Change and Extreme Weather” summarizing the current situation and future projection of climate change, extreme weather events, global warming and other global environmental events.

(2) Measures for next geostationary meteorological satellite development

The next geostationary meteorological satellites, “Himawari No. 8 and No. 9”, are being developed as the world’s leading “Geostationary Satellites for Observation of the Earth’s Environment” strengthened to monitor the global environment including global warming, as well as to improve the functionality of disaster prevention for typhoon and local downpour. From FY 2008, the two satellites are started to be built and the launches are planned for FY 2014 and FY 2016 respectively.

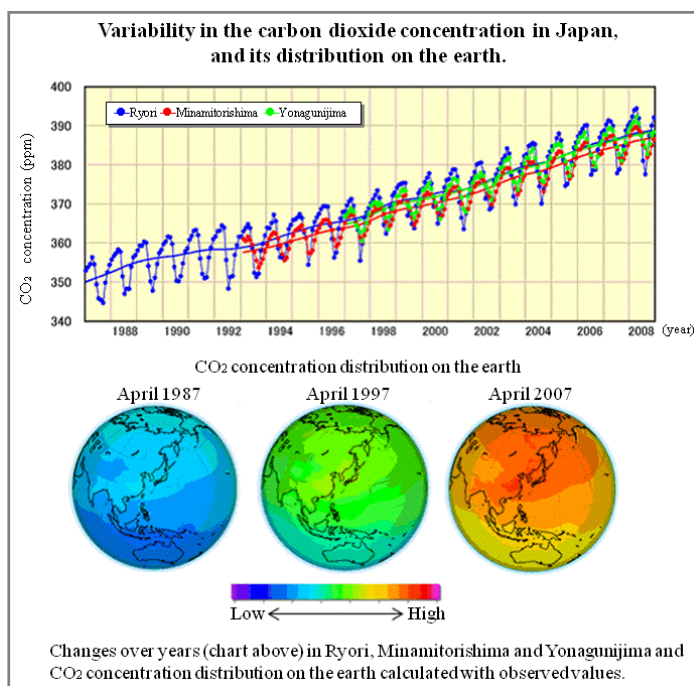
(3) Observation and monitoring of the ocean

The ocean has an important role in climate variability and global warming because the ocean is the biggest reservoir not only for heat in the climate system but also for CO₂. Also the oceanic variation significantly influences the atmospheric phenomena such as tropical cyclone and severe weather. Therefore, it is important to monitor adequately the ocean conditions in order to address the global environment issues.

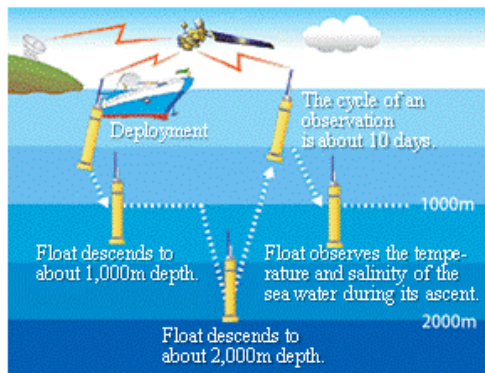
In order to monitor the oceanic variations globally in real time, MLIT and the related governmental agencies are promoting the Argo Project through international cooperation with the World Meteorological Organization (WMO) and other related organizations.

JMA collects and analyzes various data observed by the research vessels, voluntary merchant ships and fishing boats, Argo Floats and satellites, and is releasing the monitoring results and prediction of the oceanographic condition on the JMA website in Japanese as “Marine Diagnosis Report”.

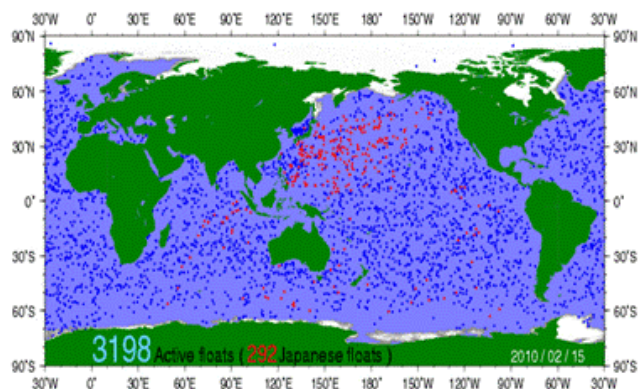
In order to complement the database from Argo Floats, the Japan Coast Guard is monitoring and grasping changes in Kuroshio currents in the water surrounding the Izu Islands all the time through the ocean HF radar system, and is releasing the observed data. Moreover, the Japan Oceanographic Data Center is also collecting and managing ocean data obtained from the ocean examination institutions of our country, and is providing the data to the related institutions and the general public.



Scheme of Argo float observation



The Argo floats put into the ocean by research vessels repeat a descent and ascent between near the sea surface and about 2,000 m depth to observe the vertical profile of the temperature and salinity of the sea water, and then observed data are transmitted automatically to operation centers through satellites. The cycle of an observation is about 10 days.



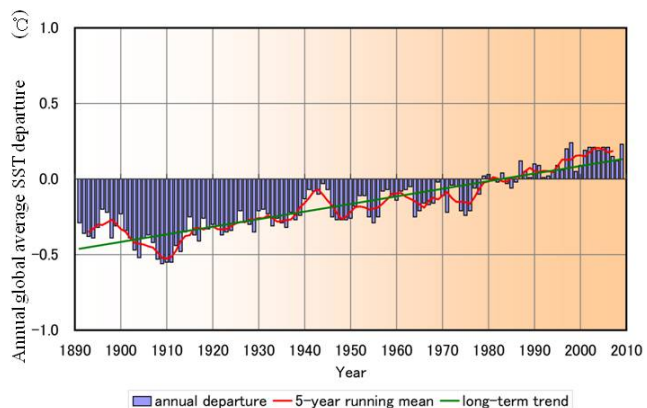
Dots on the map show the positions of each Argo float that has delivered their observed data within the latest month. 3,198 floats are active all over the world as of 15 February 2010 and 292 of them had been put into the ocean by Japan (shown by red dots).

Example case of the "Marine Diagnosis Report" provided on the website (Japanese) of the Japan Meteorological Agency

[Time-series representation of annual global average SST departures]
SST: Sea Surface Temperature

-The global average SST departure in 2009 was $+0.23^{\circ}\text{C}$, which is ranked as the second highest since 1891.

-The annual global average SST departures have varied due to the variation of oceans/atmosphere ranging from a few years to several decades, and the impact of global warming. In terms of the long-term trend, it has been rising at a rate of about 0.5°C per century, and we have often had a year with high temperatures exceeding the long-term trend especially since the last half of the 1990s.



(4) Monitoring the ozone layer

In order to protect the ozone layer, which absorbs hazardous ultraviolet solar radiation, the production, consumption and trade of chlorofluorocarbons and other ozone depleting substances are regulated in the international framework that includes the Montreal Protocol on Substances that Deplete the Ozone Layer.

The Japan Meteorological Agency publishes the observational and analytical results of the ozone layer and ultraviolet radiation annually. In order to provide warning of the negative effect of ultraviolet radiation on humans, it also releases information on ultraviolet radiation on a daily basis by using an easy to understand UV Index representing the intensity of ultraviolet radiation.

(5) Promotion of regular observation in Antarctica

The Geospatial Information Authority of Japan is implementing geodetic control point surveys, gravity surveys, continuous GPS observation, local crustal deformation monitoring, and topographic mapping by photogrammetry. The results are contributing to the research on the earth's environmental change in the Antarctic region as well as the international activities regarding the geodesy and geographical information.

The Japan Meteorological Agency maintains the observation of the ozone layer, radiation and meteorological parameters on the surface and in the upper air at Syowa Station. The observed data has contributed to research on climate change and the monitoring of the ozone hole over Antarctica, supporting the formulation of international measures to protect the global environment.

The Japan Coast Guard is implementing seabed landform investigations. In addition, it is also implementing tidal observation and is contributing to the monitoring of changes in ocean surface water levels, which is closely related to global warming.

2. Projection of the Future Global Environment

(1) Research on global warming

The Japan Meteorological Agency (JMA) and Meteorological Research Institutes have been developing climate models for projecting climate change over the world and around Japan, and actively participating in international research projects such as the World Climate Research Programme (WCRP). These research results were referred to in the 4th assessment report of the Intergovernmental Panel on Climate Change (IPCC) and were released as the “Global Warming Projection”. IPCC is scheduled to issue the 5th assessment report in 2013–2014. In addition, JMA will provide the next issue of “Global Warming Projection” that features climate projection at higher resolution. The Meteorological Research Institute, with this in mind, is developing a model that incorporates the carbon cycle process and the regional climate model to contribute to these activities.

(2) Activities of the Tokyo Climate Center

In order to support the climate information provision service in the Asia-Pacific region, the Japan Meteorological Agency, as a Regional Climate Center of the World Meteorological Organization (WMO), is providing information on the monitoring of extreme events, long-term forecasts and global warming projections to the meteorological services of Asian countries and is also providing technical support for the utilization of such information.

3. Promotion of the Global Mapping Project and the global survey and observation network

Japan is leading the Global Mapping Project (180 countries/regions are participating as of December 2009), such as by serving as the secretariat of the International Steering Committee for Global Mapping (ISCGM). Japan is also promoting the utilization of the Global Map for understanding and analyzing the global environment through the organization of international workshops, the Conference of the Parties to the United Nations Framework Convention on Climate Change etc. MLIT is carrying out observations and research regarding crustal movement using global observation by VLBI and SLR (Satellite Laser Ranging). Moreover, the “Environmental Monitoring of Japan” is being carried out for developing the data of plant activities through satellite data analysis.

Chapter 8: Strengthening International Cooperation, Contributions and Competitiveness for the Sustainable Development of our Country

Section 1 – Establishing Mechanisms for International Cooperation and Coordination as well as Taking Global and Regional Initiatives

(1) International cooperation on environmental and energy issues in the transport sector

In order to strengthen international efforts on environment and energy in the transport sector, which accounts for 23% of the world's CO₂ emissions, transport ministers of major countries and representatives of relevant international organizations met at the “Ministerial Conference on Global Environment and Energy in Transport” (MEET) hosted by MLIT in January 2009 in Tokyo and adopted a Ministerial Declaration, in which ministers shared the global long-term vision of realizing low-carbon and low-pollution transport systems, and agreed to facilitate developing countries' efforts through the sharing of best practices and enhanced capacity building. On the basis of the Ministerial Declaration, MLIT then hosted the Senior Officials Follow-up Meeting in June of the same year in Hakodate, where participants had active discussions from three perspectives – namely, “Strategy”, “Financing”, and “Capacity building” – to accelerate each country's efforts, and they reached a consensus on further fostering of a global network among transport officials and experts. The 2nd Ministerial Conference is to be held in November 2010 in Italy.

MLIT also participates actively in the International Transport Forum (ITF), the international framework consisting of transport ministers of 52 countries that proposes the global direction of transport policies and measures. The Annual Ministerial Forums were held under the theme of “Transport and Energy” in 2008 and “Transport and Globalization” in 2009. Japan was elected as the chair of the Forum in 2012.

(2) Strengthening cooperation within East Asia

The government of our country as a whole is assisting in wide-ranged aspects in order to ensure the stability and prosperity of the East Asia region.

Regarding the transport sector, the “ASEAN-Japan Action Plan on Environment Improvement in the Transport Sector (AJ-APEIT)” for implementing environmental measures in the transport sector, the “Operational Guidelines of the ASEAN-Japan Transport Statistics Database” for serving the development and sharing of transport statistics data essential for transport policy planning, and the “ASEAN-Japan Transport Partnership (AJTP) Work Plan for 2009-2010” was endorsed in the 7th ASEAN and Japan Transport Ministers Meeting held in Hanoi, Vietnam in 12 December 2009.

In addition, for the 3rd China-Japan-Korea Ministerial Conference on Transport and Logistics scheduled to be held in 2010, 12 action plans are being worked on. In October 2009, the 4th China-Japan-Korea Tourism Minister's Meeting was held and a Joint statement for the promotion of tourism exchange and cooperation between the three countries was released. Moreover, the 6th China-Japan High-level Meeting on Transport was held in November of the same year, and opinions on logistics, transport, safety, and environment were exchanged. Furthermore, in March of 2010, the 6th Japan-Korea High-level Meeting on Transport was held and opinions about public transport and logistics were exchanged.

In the realm of construction, the effort to establish the future cooperative relationship with construction related ministries and construction industries is carried out mainly in the countries of East Asia, through actions such as further pushing forward cooperation towards various issues regarding the construction administration of the two countries by holding the 5th Indonesia-Japan Conference on Construction with the Public Affair Ministry of Indonesia in October 2009.

In maritime related activities, Japan is participating in the Partnership in Environmental Management for the Seas of East Asia (PEMSEA), which is implementing the sustainable development of East Asian seas. In November 2009, during the “3rd PEMSEA East Asia Seas Congress” held in Manila in the Philippines, the “Manila Declaration on Strengthening the Implementation of Integrated Coastal Management for Sustainable Development and Climate Change Adaptation in The Seas of the East Asia Region” was adopted.

(3) Measures for the formation of free and fair overseas construction markets

In order to secure a free business environment for the construction enterprises of our country to carry out business activities overseas, negotiations are being performed continuously for working with the countries they advance into, in order to develop the construction market environment, through abolishing and relaxing different regulations, and increasing the transparency of procuring procedures in places of diplomatic negotiation (e.g. EPA and WTO).

(4) Measures for building a network of ministers in charge of the infrastructure of the Asia-Pacific region

With the aim of sharing know-how and skills and promoting mutual cooperation in the Asia-Pacific region, Japan advocated and established the Ministers' Forum on Infrastructure Development in the Asia-Pacific Region with the 20 countries/regions. In June 2009, the 7th Forum was held in Singapore with the theme of “Integrating water infrastructure planning with sustainable urban development” and the Ministers' Declaration, as the achievement of the forum, was adopted. It was also agreed that the 8th Forum of 2010 would be held in Japan.

(5) Measures against the global water problem

The global water problem is being discussed in various international conferences, such as in terms of climate change caused by global warming, the growing population in the world, the rapid economic growth of developing countries, the increase in water demand due to urbanization or water pollution. In the 5th World Water Forum, a ministerial-level international conference was held in March 2009, the key message was summarized; that is, to achieve “Water Safety Protection” for tackling the global issues. As an effective way to solve the water problem, there is a common international consensus to formulate an Integrated Water Resources Management (IWRM) Plan. Therefore, Japan is supporting the formation of the “IWRM Guidelines at River Basin Level” led by UNESCO. At the same time, Japan is working together with UNESCO and Network of Asia River Basin Organization (NARBO), and contributing to the popularization and promotion of Integrated Water Resources Management. The Japan Sanitation Consortium (JSC) was founded as the knowledge hub of the sanitation division of the Asia-Pacific region and the Japan Global Center for Urban Sanitation (GCUS), which provides technical support through industry, educational institutions and government sectors was established; and international cooperation is being pushed forward for world water and sanitation problems.

To cope with the increase in the risk of global water disasters due to climate change resulting from global warming, with international contribution in the form of technical support regarding adaptations to climate change, Japan is promoting international cooperation on planning procedures for accommodating measures in the Asia-Pacific region, and JICA is providing assistance to Indonesia, the Philippines, Vietnam, etc. Furthermore, based on our accumulated knowledge including the development of an early flooding alert system utilizing satellite and talent development, the International Center for Water Hazard and Risk Management (ICHARM), as a knowledge hub in the Asia-Pacific region for water disasters, is providing international support in cooperation with Asian Development Bank.

Moreover, for solving the water problems within the country, the “communication council of related ministries and government offices regarding water problems” was formed by 13 government ministries and is working out the reinforcement of cooperation.

Section 2 – Efforts towards International Standards

(1) International coordination of automobile standards and verification system

For the cheap and early popularization of safe automobiles with a high level of functionality, our country participates actively in the United Nations Economic Commission for Europe – World Forum for Harmonization of Vehicle Regulations (UNECE/WP29). While pushing forward the international coordination of automobile safety and environmental standards, suggestions are actively raised in order to internationally popularize Japan’s new technology through this coordination activity. Moreover, beginning with China and India, cooperation with Asian countries will be further deepened from now on in the aspect of standard verification systems through supporting participation in activities regarding the coordination of automobile standards as mentioned in the UNECE/WP29.]

(2) Measures towards international specifications regarding railways

International railway specifications are not only important for the overseas business development of Japan’s outstanding technology and specifications but also affect the whole railway industry in Japan, so it is necessary to deal with international standards strategically. Therefore, MLIT is cooperating with railway business operators and related industries and working on international standardizing activities, such as delivering the outstanding technology of Japan. Based on the “Action Plan of standardization activities in railways sector”, aggressive activities are being carried out in FY 2009. Additionally, the Railway International Standards Center in the Railway Technical Research Institute was established in July 2009 and activities were started, aiming to be in full operation in April of next year.

(3) Measures towards the international standard regarding ships and crews

The international marine transport business is running with ships and crews of different nationalities. According to the international unified rules regarding safety and environmental protection, it is necessary to run under appropriate and fair competitive conditions. Therefore, our country is actively contributing to the formulation of international standards according to conventions regarding ships and crews, including the SOLAS Convention¹, MARPOL Convention² and STCW Convention³.

(4) International coordination of civil and construction standards and verification system

Recently, in the globalizing market of civil, construction and residential housing, various measures are being implemented including the application of systems such as the functional verification of foreign construction materials and the approval of evaluation institutes, and the technological cooperation performed by the Japan International Cooperation Agency (JICA).

¹ International Convention for the Safety of Life at Sea

² International Convention for the Prevention of Pollution from Ships

³ The international convention regarding crew training, qualification identification and duty standards

Moreover, the civil and construction standards and international coordination of a verification system are being worked out through participating in the design and construction specification formulation of the International Organization of Standardization (ISO).

(5) International standardization of Intelligent Transport Systems

In order to enhance efficient application development, international contribution and the development of local related industries, Japan is supporting the establishment of an international standard for ITS technology formulated in the International Organization of Standardization (ISO) and the International Telecommunication Union (ITU).

While participating in the special committee for international standardization of ITS (ISO/TC204), Japan is promoting the international standardization of Smart-Way, and developing and popularizing Japanese standards that comply with international standards.

(6) International standardization of geographic information

The Geospatial Information Authority of Japan (GSI) is participating in the technical committee regarding the ISO geographic information and is pushing forward the international standardization of geographic information. At the same time, it is also developing and popularizing local standards that comply with international standards.

(7) Mutual recognition of technical professional qualifications with overseas countries

In the APEC engineer mutual recognition project, the mobilization of qualified technical professionals is being promoted based on the mutual recognition of technical qualifications between participating countries and regions. In order to promote the mobilization of qualified architects through the APEC Architect Project (Architect Register system), our country has endorsed the “APEC Architect Bilateral Agreement between Japan and Australia” with Australia in July 2008 and the “APEC Architect Bilateral Agreement between Japan and New Zealand” with New Zealand in July 2009 respectively.

(8) The issue of the Name of the Sea of Japan

The “Japan Sea” is the name used not only in nautical charts and maps published by the Japan Coast Guard or by the Geospatial Information Authority of Japan, but also in the International Hydrographic Organization (IHO) publication “Limits of Oceans and Seas” and it has been recognized and acknowledged as the only internationally established name.

However, since the 6th United Nations Conference, held in 1992, on the Standardization of Geographical Names, ROK has been insisting that the name of the “Japan Sea” be changed to “East Sea” or that both names be used together because the “Japan Sea” became widespread as a result of Japanese expansionism and colonial policy. Therefore, Japan seeks the understanding and support of the international community on this issue.

Section 3 – International Cooperation and Development Making use of the Experience, Technology and Know-How of our Country

(1) Promotion of international cooperation

The development of human resources in planning, policy formulation, and management and operation sectors is essential for developing economic and social infrastructure in developing countries. As there is a great need for international cooperation in the field of infrastructure, various measures have been conducted including 1) the implementation of international exchange through policy dialogue, and human resources development through the support of private organization such as NGOs and trainee admission, 2) measures against global environmental issues and the implementation of technical development to improve safety, 3) the transfer of Japanese technologies and standards through dispatching technical experts and the invitation of Ministers and high ranking officials from related Ministries to Japan, and 4) technology transfer through schemes provided by JICA and related organizations and international cooperation through coordination with international organizations.

(2) Assistance to the development of a wide range of economic and social infrastructure

Considering the expansion of the mutually dependent international relationships, MLIT is providing support for a wide range of socio-economic infrastructure development across various countries that are connected and impacted by the Asian Highway and Mekong regional development.

For the Asian Highway, based on the “Intergovernmental Agreement on the Asian Highway Network” (the highway to/from Tokyo and Fukuoka is named router “AH1” in the agreement), technical cooperation is being provided for the promotion of Asian Highway development. Regarding the Mekong regional development, based on the “appropriate future support method in terms of infrastructure in Mekong region (tentative)”, technical cooperation is being provided. Additionally, 2009 marked the 50th anniversary of the Asian Highway Project, which was started in 1959. A seminar for looking to the future was held in February 2010, looking back over the past half century since the implementation of the project.

For the wide range of infrastructure for Africa, based on the agreement of the “4th Tokyo International Conference on African Development (TICAD IV)”, development support is being provided by utilizing skills and know-how for planning, constructing and enhancing regional transport corridors and international ports.

Moreover, the governments of related countries are working together to review logistics infrastructure development in India and the ASEAN countries and enhancement in smoothness of freight transportation in Russia, etc, which is being strongly requested by the private sector.

(3) Assistance in the environment and safety sectors

In the environmental sector, in order to push forward the utilization of a Clean Development Mechanism in terms of infrastructure based on the Kyoto Protocol, environmental development is being implemented through technical review meetings and seminars held inside and outside the country. Moreover, measures are being implemented for contributing to the training of automobile executives in Asia and the improvement of urban public transport in the ASEAN countries.

In the safety sector, the technical assistance is being provided to Indonesia for training that contributes to improving the aircraft accident investigation level. In addition, targeting the executives in charge of safety, expert assembly and group training on air and port security, the Japan Coast Guard is also actively pushing forward similar human resource development and is implementing training for the purpose of improving the abilities of the coast guard agencies in Asia.

Regarding the assistance provided for disaster measures, the Japan Coast Guard is ready to participate the rescue team that is dispatched as the Japan Disaster Relief Team, while both MLIT and the Japan Coast Guard are participating in the expert team. Additionally, they also take part in the government investigation group of disaster areas. Experts from various fields are being dispatched to participate in the survey group regarding the earthquake in the Padang offing of West Sumatra in Indonesia, the cyclone damages in Bangladesh and Myanmar, and the problems related to climate change in Tuvalu.

Furthermore, the dispatch of experts, technical assistance and training are being implemented for the purpose of technology transfer in several countries in various fields including city, river, road, residential housing, map, railway, maritime and climate.

(4) Measures towards the promotion of infrastructure development projects through public-private partnership overseas

Expecting huge infrastructure demand in the developing countries, there is an increasing importance of infrastructure development methods utilizing the know-how and financial power of the private sector. Under such circumstances, in order to encourage the participation of Japanese enterprises in infrastructure development through public-private partnership (PPP), the Public-Private Workshop on Vietnamese Expressways and the Mongolia_Government-Private Workshop on Water Resources were carried out, in which the cooperation system was reviewed. In Vietnam, Seminars on Expressway Development were held and discussed three times, the measures for resolving the issues found in projects in which Japan participated were put into an action plan, and the final report was summarized.

(5) International development of the construction and transport industries

Although there is a medium or long-term decreasing trend of domestic construction investment, it is expected that there will be continuous strong demand for infrastructure development in Asian countries. In order to continue the development of our construction industry, the active advancement towards the overseas construction market is requested. However, the rate of revenue from projects outside Japan remains at about 20% even for the major super general contractors.

Therefore, our country is strengthening the international competitiveness of the construction industry and carrying out measures for public-private cooperation for working out the reception of large-scale projects from overseas, talent training for performing their abilities on international construction projects, and support for individual enterprises with difficult risks.

Additionally, the consulting window (overseas construction hotline) was established in the ministry, with which Japanese private companies can consult on the construction skills and management of overseas construction projects. In order to resolve the problems and push forward the overseas development of our construction industry, agreements with the government-related institutions of partner countries are being negotiated, in cooperation with the related institutions (e.g. the Ministry of Foreign Affairs) in Vietnam etc.

It is predicted that the world's water business market will be expected to reach 100 trillion yen by 2025 and our country is putting effort in the overseas business development of our outstanding water-related technology. In April 2009, industry, educational institutions and the government cooperatively established the Japan Global Center for Urban Sanitation (GCUS), which discusses topics such as public-private cooperation seminars and international standardization. Furthermore, in order to support the overseas business development of domestic water-related enterprises, MLIT has collected and provided information on the world's water business and the water resources of Japan and foreign countries. Moreover, MLIT invited the Minister of Construction of Vietnam in February 2010 to strengthen the cooperative relationship with Vietnam and to promote our advanced technology through seminars as well as top sales among MLIT, GCUS, industry, educational institutions and the government.

Regarding transport industries, measures are being implemented to introduce Japanese railway technologies overseas amid the ongoing globalization of the economy. In particular, measures are being carried out for introducing our Shinkansen technology into the high-speed rail projects of the United States, Brazil and Vietnam. Those technologies have advantages such as their energy-saving functionality, safety, security, and enable high frequency and mass transport. In January 2010, MLIT officers including the Vice Minister and the parliamentary secretary traveled to the United States and Brazil, and performed sales activities through holding seminars and meetings with government executives. In addition, technical cooperation is also being carried out on urban railways, monorails, and new transport systems that contribute to traffic congestion and environmental improvement, and overseas business development is being actively pushed forward. Moreover, with regard to the port business, port development projects in Vietnam are in progress. In the future, at the same time as carrying out cooperation

with partner countries in agreement, coordination and technical aspects, as well as the environmental development of talent training and skills transfer, the government and the private sector are cooperating and implementing diverse activities.

Column – International Development of the Water Business (Japan Global Center for Urban Sanitation (GCUS) and A-JUMP Project)

In order to push forward the overseas business development of our outstanding sewerage technology and push forward measures for resolving water and sanitation problems, is cooperating with industry, educational institutions and the government. MLIT cooperated with the related institutions and established Japan Global Center of Urban Sanitation (GCUS: Secretariat – Japan Sewage Works Association) in April 2009.

Focusing on countries including China, India, Vietnam and Saudi Arabia, GCUS is pushing forward measures for the overseas business development of our sewerage technology through setting up activity groups for each country, and holding seminars with overseas government-related institutions and field investigations. In addition, activity groups are set up on an issue basis regarding cross-national issues such as international standardization and strategy analysis for the overseas business development of our sewerage technology, and reviews are being carried out.

Moreover, in cooperation with the Ministry of Economy, Trade and Industry, the collaboration of industry, educational institutions and the government is implementing the “Japanese Version Next Generation MBR Technology Project (A-JUMP)”, for the popularization of membrane-processing technology, not only for the local sewerage business, but also for the overseas “Water Business” development of our private enterprises.

GCUS assists private businesses to conduct business overseas through international communication of the leading technologies of Japan and support for the formulation of projects to utilize this PF, in an integrated manner among industry, government and academia.

Activity groups classified by the country

India group	Vietnam group
China group	Saudi Arabia group

February, 2009 Indian aquatic environment workshop
December, 2009 Public-private joint field investigation in Vietnam
January, 2010 Field investigation in China
February, 2010 Drainage seminar intended for the group of the Minister of Construction of Vietnam

Top sales by the MLIT Minister

Public-private joint seminar

February 2009 Public-private joint field investigation in Saudi Arabia

Activity groups by the theme

Establishing a network with trainees from overseas etc.

Networking activities with overseas interns
A delegation from Mongolia for water and sewage (November 2009)

An exchange meeting was held by Japanese corporations for the delegation group led by the Manager in charge of water and sewage at the public center of the Ministry of Construction Urban Development of Mongolia.

- Joint research on the overseas operation of water and sewage business
- Examining international standardization
- Examining the utilization of sewage water for ballast water

A-JUMP project

Advance of Japan Ultimate Membrane-bioreactor technology Project

The membrane treatment technologies on which Japanese companies have the leading know-how in the world.

- Technological development for overseas operations
- Upgrading domestic sewage plants

Ceramic membrane

Flat membrane

MLIT takes initiatives to validate the advanced development of the Membrane bioreactor (MBR) in the actual facilities in use to compile guidelines and to transfer MBR overseas with these guidelines as a technical guide.

1. Applying MBR on the renovation of existing sewage plants
2. Applying MBR to satellite treatment

Validation field
Moriyama water treatment center in Nagoya City
Miai Pumping Station, Kinuwa-Tobu Watershed Sewage, Aichi Prefecture

Column – Overseas Development of the High-Speed Rail System of our Country

Recently, from the viewpoint of dealing with the earth's environmental problems, railways have been brought to the attention of the international community as an efficient mode of transport with low CO₂ emissions. Many countries are actively considering and promoting railway development as national projects.

In the United States, the high-speed rail strategic plan was released in April 2009, and the allocation of federal government subsidies for high-speed rail development was determined. Currently, two high-speed rail projects are scheduled. One is between Rio de Janeiro and Campinas in Brazil and the other is the high-speed rail project between Hanoi and Ho Chi Minh in Vietnam.

Our railway technology has a high environmental functionality, safety, stability and efficiency through the sophisticated unification of various individual elemental technologies. In particular, the Shinkansen is superior to the high-speed rail of other countries in terms of energy-saving, mass transport, and low construction and maintenance costs. Throughout the 45 years since the opening of the Tokaido Shinkansen in 1964, it has achieved a high level of safety, whereby there have been no accidents resulting in the death or injury of a passenger, as well as high reliability in terms of punctuality, where the average delay time per train is less than 1 minute.

The international business development of the superior railway system of Japan is not only important for sustaining and



Photo by : Tim Prendergast

[Photo: The Senior Vice Minister of Land, Infrastructure, Transport and Tourism organized a high-speed rail seminar on January 21, 2010 to conduct top sales.]

developing our railway industry, as well as inheriting and developing railway technology, but is also important for strengthening the relationship between countries through contributing to the economic and social development of partner countries, as well as to contribute to environmental problems.

Therefore, Japan makes it its business to work on the introduction of its railway system to the continuing railway projects in various countries, such as by carrying out top-level sales activities under the cooperation of the government and the private sector, internationally standardizing our railway technology and standards, and public financial assistance in cooperation with related government ministries.

In November 2009, the Prime Minister presented our Shinkansen to the President of the United States during his visit to Japan. In January of 2010, the Senior Vice Minister of MLIT held the High-Speed Rail Seminar with the executives from major Japanese railway companies in Washington D.C. and met with government officials, such as Secretary of Transport. At the same time, the Parliamentary Secretary of MLIT visited Brazil with the Japanese consortium. He met the government officials of Brazil and delivered a letter signed by the Prime Minister.

Section 4 – Multilateral and Bilateral Negotiation Measures

1. Efforts related to multilateral negotiations and forums

(1) World Trade Organization (WTO)

Japan is the current chair of WTO meetings related to maritime and construction measures and also actively participating in the negotiations for various measures related to trade in the service sector. Moreover, with regard to the Agreement on Government Procurement (GPA), Japan is pursuing negotiation revisions to ensure the transparency of procedures and the expansion of market access.

(2) Efforts related to the Asia-Pacific Economic Cooperation (APEC)

The purpose of APEC is to promote the liberalization and facilitation of free trade and investment in the Asia Pacific region. With respect to economic and technical cooperation in the region, MLIT is actively engaged and focused on participating and contributing to working-level meetings (e.g. Transport Working Group and Tourism Working Group) In particular, during the transport Working Group meeting, experts discussed various issues related to land transport, maritime, aviation and intermodal developments. Moreover, the Tourism Working Group discussed measures related to the promotion of tourism in the APEC region. The 6th Tourism Ministerial Meeting was held in Nara, Japan from September 20-23, 2010.

(3) Measures toward the Organization for Economic Cooperation and Development (OECD)

For the construction of a healthy ship-building market at the Council Working Party on Shipbuilding in OECD, the development of normal competitive conditions and the enhancement of discussion with emerging ship-building economies, the international tourism promotion at the tourism committee and the Territorial Development Policy Committee (TDPC), measures are being actively taken including the policy review of all signatories regarding national and regional policies and the comparative policy review regarding their cities' competitiveness in dealing with climate change. At the same time, the Joint OECD/ITF Transport Research Centre is performing the duty of chairman in "the working group regarding the strategy of reducing the exhaust emissions of greenhouse gases in the transport sector" and is actively taking action, such as by holding the popularization seminar of the research report in Tokyo in October 2009.

(4) Measures toward the International Maritime Organization (IMO) and International Labour Organization (ILO)

As the leading country of marine transport and shipbuilding in the world, our country is actively participating and is playing a leading role in IMO activities. Recent activities include the review of the reduction of greenhouse gases from ships and air pollutants, as well as the target-directing standards for newly built structure¹, etc.

In February 2006, the MLC Maritime Labour Convention, which is the convention adopted by ILO for working out the assurance of fair competitive conditions in the improvement of the working environment of crews and international marine transport, was held. Aiming at the conclusion of our country, at the same time as reviewing and coordinating with the related parties in the country, it is cooperating with all related countries and taking measures actively such as drawing out guidelines on inspecting ships flying the national flag.

(5) Measures towards the International Civil Aviation Organization (ICAO)

For the safe and methodical development of international civil aviation, and the healthy and economic operation of the international air transport business, certain rules are prescribed. Our country is bearing the 2nd largest proportion of shared cost among the signatories. Moreover, as a category-1 council country, our country is participating actively in various ICAO activities and contributing to the development of international civil aviation.

¹ The action of setting a certain target and the requirement agreed internationally regarding ship structure standards that have been different in different countries and different shipmaster's associations.

(6) Multi-national measures in different sectors

1) Measures in the logistics sector

Through organizing the Logistics Ministerial Conference between Japan, China and Korea, the information exchange regarding international tourism, reciprocal cooperation and opinion exchange is being undertaken in order to push forward the further cooperation and partnership of the logistics sector in north-east Asia.

2) Measures in the tourism sector

Through organizing the Tourism Ministerial Conference between Japan, China and Korea, information exchange regarding international tourism, reciprocal cooperation and opinion exchange is being undertaken in order to push forward the promotion of tourism exchange and the enhancement of cooperation.

3) Measures in the road sector

The World Road Association (PIARC/WRA) is dispatching members, beginning with the Vice President, to the technology committee. At the same time, it is also participating in the activities of the Road Engineering Association of Asia and Australasia (REAAA). In July 2009, the first joint seminar of PIARC/WRA and REAAA was held in Tokyo and actively pushed forward international activities.

4) Measures in the port sector

In September 2009, Japan, China and Korea held the 10th North-East Asia Port Conference. In the conference, the three countries reported the present measures of their own country concerning “crisis resolving policy regarding the effects of the global economic crisis on port activities and port policy” and exchanged information. Furthermore, the draft of the final report on the 3-year cooperative research (three workgroups) has been presented. Moreover, the “green port strategy for sustainable development – reduction of gas exhaustion and improvement of energy-using effectiveness” has been accepted as the common theme of future measures.

5) Measures in the marine security sector

Attending the North Pacific Coast Guard Forum and the Heads of Asian Coast Guard Agencies Meeting, the partnership and cooperation between the Coast Guard Agencies is being pushed forward for countermeasures against piracy and armed robbery and maritime security, and diligent efforts are being made for international contribution through international institutions such as IMO, IHO, IOC, etc.

6) Approaches in the field of surveying and mapping

For promoting the Global Mapping Project, popularization activities are being carried out through organizing the international workshop for the 2nd version of the Global Map and meetings such as the Conference of the Parties to the United Nations Framework Convention on Climate Change. Moreover, in addition to taking up the post of the Vice President of the Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP), established pursuant to the recommendation of the United Nations Regional Cartographic Conference for Asia and the Pacific (UNRCC-AP), the monitoring of crustal movements is being promoted with the cooperation of the committee and concerned countries.

2. Main Measures through Bilateral Negotiation

(1) Measures toward the conclusion of bilateral EPA/FTAs (Free Trade Agreement)

Our country is actively negotiating within the government for the conclusion of EPA/FTAs. There are 11 effective EPAs between Japan and other countries or regions. From the viewpoint of strengthening the international competitiveness of our industries (e.g. transport and construction), while pushing forward freedom enhancement in the service sector (e.g. abolishment and relaxation of regulations against foreign investment) in partnership countries, as well as the opening up of markets and the expansion of participation opportunities regarding governmental procurement in partner countries, bilateral cooperation is being worked on with the partner countries in the tourism aspect.

(2) Measures towards the economic agreement framework between the United States and Japan

Regarding the “US-Japan Economic Partnership for growth” that pushes forward sustainable growth through discussion between the United States and Japan, other than participating in the “Regulating Reform and Competition Policy Initiative” etc., opinions are being exchanged on various issues, such as the freedom enhancement of marine transport and public construction.

(3) Bilateral measures in different sectors

In the transport sector, conferences are being held regularly on various issues including the safety assurance of the environment, airways and railways between Europe and Japan, the railway and maritime sectors between Japan and the United Kingdom, railways and intensive urban structure between France and Japan; highways, railways, ports etc. between Japan and Vietnam; and the environment, logistics, public transport etc. between China, Japan and Korea.

In the river, erosion and sediment control sectors, bilateral conferences are being held with Korea, China, France, Italy and the United States as well as to push forward information exchange and technical cooperation etc.

In the maritime security sector, based on the notes for cooperation between Japan Coast Guard and coast guard agencies of Russia, China, Korea and India, partnerships and cooperation are being continuously built in maritime security, search and rescue, marine environment preservation etc.

Chapter 9: Use of Information and Communication Technology (ICT) and Promotion of Technical Research and Development

Section 1 – Promotion of Innovation in MLIT Administration through Utilizing ICT

The IT Strategy Headquarters (Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society), which is headed by the Prime Minister, is pushing forward the introduction of information technology into MLIT according to the “i-Japan Strategy 2015” determined in July 2009.

Moreover, related measures are being reviewed on the basis of the “Innovation Promotion Outline in MLIT” formulated in May 2007.

1. Introduction of ICT in the transport sector

(1) Introduction of ICT in the public transport sector

In order to enhance the productivity and service of local medium and small-size public transport operators, it is important to utilize ICT. Currently, the IC card ticket has been mainly introduced on public transport in major metropolitan regions. However, it is having problems in terms of the cost of introducing IC card tickets to local public transport operators. Therefore, support is provided on the development for realizing an economical IC card ticket system that can be easily introduced into local medium and small-size public transport operators.

(2) Promotion of ITS

The Intelligent Transport System (ITS) is constructed as a unitary system for humans, roads and vehicles by utilizing the most pioneering ICT. It is working out intelligent road usage, the safety of drivers and pedestrians, and the realization of significant improvement in transportation efficiency and comfort, as well as striving to resolve various social problems including traffic accidents and congestion, environmental problems and energy issues. It is also connected to the creation of new market structures in the related sectors of the information communication industry.

1) The penetration of ITS into society and its effect

(A) Promotion of ETC popularization and effect

ETC is now usable on all toll roads throughout Japan. The accumulated number of new on-board equipment setup was about 30.08 million as of February 2010 and the usage rate in the highways of the whole country was about 83.9%. Through ETC, toll collection booth congestion, which accounted for about 30% of highway congestion, has been almost completely resolved and it is also contributing to reducing environmental burden, including the reduction of CO₂ exhaustion. Moreover, at the same time as implementing measures utilizing ETC, such as the introduction of Smart IC, which is IC for the exclusive use of ETC and toll discounts given to ETC vehicles, a wide-range of diversified services utilizing ETC, such as enabling the application usage not only on toll roads but also in car park payment and ferry boarding procedures, has been exhibited.

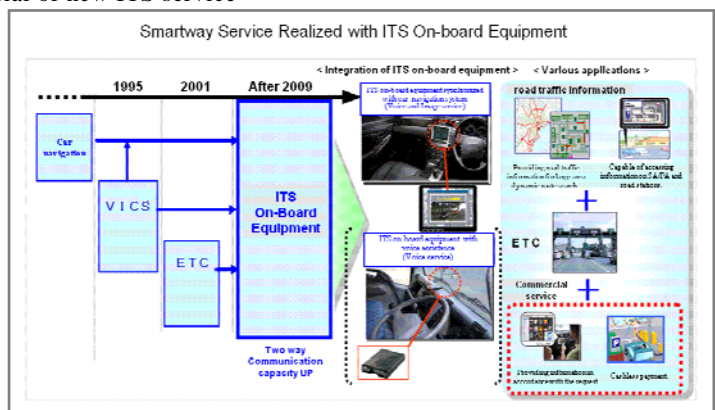
(B) Enhancement of road traffic information provision and its effect

As of December 2009, about 26 million sets of new on-board equipment, which are compatible with the Vehicle Information and Communication System aiming for the sophistication of route guidance, have flowed into the market. Through VICS, real-time road traffic information is provided, including travel times, congestion conditions and traffic regulation, so as to improve the convenience for drivers and to contribute to reducing the environmental burden such as through the reduction of CO₂ exhaustion by improving the running fuel cost.

2) Technology development and verification trial of new ITS service

(A) Popularization of ITS on-board equipment

Through the collaborative research between the government and the private sector aiming for the next generation, the technology specification of the new ITS system was developed for providing a single piece of new on-board equipment (new ITS on-board equipment) combining various new on-board equipment that have their own individual functions such as automotive navigation system, VICS, ETC, etc. This system used the internationally standardized 5.8GHz band DSRC (Spot Communication)¹ as the base, and enables the



¹ The wireless communication technology realizes speedy and large-capacity two-way communication within specific locations on roads.

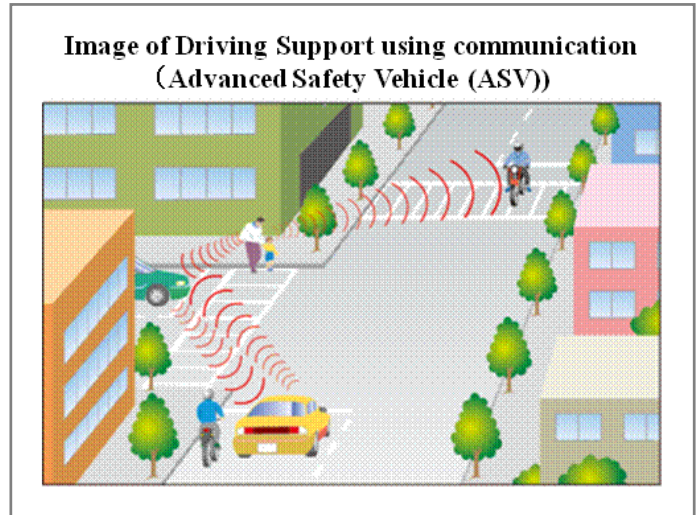
realization of diversified services with speedy and large capacity two-way communications. To be specific, the service provides regional road traffic information, safe driving supportive information about obstacles and conditions ahead by utilizing images and sounds for drawing the attention of the driver, etc. In terms of future prospects, it enables diversified services such as the connection with regional and tourist information in service areas and parking areas, and charge payment such as parking etc. In March 2007, having issued the ITS new on-board equipment standard specification manual as the JEITA standard, the same standard aimed at practicality enhancement was being reviewed in July 2008 on the basis of the public highway trial result. In the autumn of 2009, the new on-board equipment was launched for sales to the general public.

(B) Promotion of Smartway Project and Advanced Safety Vehicle (ASV) Project

The Smartway service was started in the 3 major metropolitan areas, i.e. the Metropolitan Expressway, Hanshin Expressway and Nagoya Expressway from autumn 2009. In addition, for expanding the full Smartway throughout the country, MLIT is carrying out national deployment (e.g. roadside equipment) focusing on the highways of the whole country (about 1,000 spots) and targeted to be completed by winter 2010.

Moreover, by using advanced technology (e.g. ICT technology), the ASV Project is being pushed forward for working on the development, introduction and popularization of the Advanced Safety Vehicle (ASV) that supports the safe driving of drivers.

Especially with regard to the Driving Assistance Systems for Safety¹ through infrastructure coordination, a review is being carried out on the basis of the result of the large-scale verification trial (ITS-Safety2010), in order to perform the introduction and popularization through the cooperation of industries, academics and the government.



(C) Support for low fuel cost driving and delivery efficiency enhancement of truck business operators by utilizing IT

In FY 2009, a verification trial was carried out in Hokkaido a snowy and cold region. The purpose of the verification trial was to implement low fuel cost driving for truck business operators and enhance delivery efficiency through the utilization of driving instructing function suitable for information on blocks and road environment. Furthermore, sophisticated information technology introduction is also being pushed forward.

2. Realization of a Society Utilizing Advanced Geospatial Information

With the rapid development of ICT infrastructure and the popularization of Geographic Information Systems (GIS), the realization of an economic society that enables the advanced and effective utilization of geospatial information² is aimed for. According to the “Basic Plan for the Advancement of Utilizing Geospatial Information” formulated based on the “Basic Act on the Advancement of Utilizing Geographic Information”, in addition to the development and provision of geospatial information including the Fundamental Geospatial Data³, and the popularization of geographic information standards, MLIT promotes the construction of “Digital Japan” as a virtual nation on computer.

(1) Promoting the utilization of geospatial information

In response to the “Basic Plan for the Advancement of Utilizing Geospatial Information”, MLIT carries out the development of geospatial information, including thematic maps (land condition maps etc.), “Digital Japan Basic Map (map information, Orthoimage and place name information)”, topographic maps, aerial photographs, geodetic control points and “Digital national land information”. At the same time, MLIT provides information for browsing on the Internet. In addition, the GPS-observed data collected by the GPS continuous observation system is also being provided. Additionally, as a land change archive project, the digitization and archiving (record storing) of the old-version maps kept by the Geospatial Information Authority of Japan are being carried out.

¹ The system facilitates vehicles getting information through wireless communication with infrastructure equipment (including roadside equipment, devices installed in other vehicles, and devices carried by pedestrians), and performs functions such as information provision, and cautions and warnings corresponding to needs, as it is necessary to respond to the traffic conditions of the area that are not visible from the vehicle.

² Information that represents the position of specific points or extents in geospace geoinformation and any information associated with the information.

³ The positional information, in digital form, that belongs to features, which provide positional reference to geospatial information on a digital/electronic map, including geodetic control points, coastlines, boundaries of public facilities, administrative boundaries and others listed in an ordinance of the MLIT, and that also meets the criteria defined by an ordinance of MLIT.

Furthermore, other than carrying out the domestic standardization procedure of the ISO19100 series¹, the utilization of geospatial information is being pushed forward comprehensively, for example, the enhancement of the “Geographic Information Clearinghouse” that enables integrated searches, as well as the construction and diffusion of “Denshi Kokudo Web System” that enables the integration and sharing of geospatial information on the Internet.

(2) Promoting the development and provision of the Fundamental Geospatial Data

Through the collecting of large-scale map data and taking aerial photographs, the development of the Fundamental Geospatial Data ensured certain quality is being maintained, and the provision is being carried out via the Internet as the positional reference for digital maps.

3. Realization of e-Government

Having received the “i-Japan Strategy 2015” formulated by the government, MLIT is taking measures for realizing e-Government.

The e-Application in it is being intensively expanded for enabling administrative service and efficiency enhancement.

(1) Providing a one-stop service for the procedures related to automobile maintenance

A one-stop service is being pushed forward with the cooperation of the related prefectural ministries. It integrates different services such as inspections, registration, and payment of taxes on automobiles and allows procedures to be performed on the computer. For new registration of vehicles, this service is operating in 10 prefectures. In addition to the e-certificate (Resident Basic Information Card), the improvement of usage ease is being worked on, such as to improve the application procedures for enabling the utilization of Stamp Registration Certificates, etc.

(2) ICT introduction of bidding and contracts in public affairs

The ICT utilization in bidding and contracts in public affairs is one of the important pillars of public affairs reform from the viewpoint of cost reduction etc. To be specific, the CALS/EC (Continuous Acquisition and Life-cycle Support / Electronic Commerce)² is being pushed forward. Among these, e-bidding is targeting the construction projects initiated by the Regional Development Bureaus and all construction consultant projects. E-delivering is being implemented for submitting the completed product in electronic data.

Furthermore, the single reception³ of the competition participating qualification approval of public affairs, which is performed by each project owner, is being implemented. It strives for the reduction of workload for both the project owner and applicant and the applications through Internet accounted for about 79% of the total in FY 2009 and FY 2010.

4. Developing and opening optical fibers for public facility management and its spaces

Having received the “e-Japan Intensive Plan”, in order to further carry out the formation of sophisticated information communication networks with the highest global standard, the development and opening of the optical fiber for public facility management and its spaces have been pushed forward.

Regarding optical fibers for public facility management, in order to enhance the efficiency of public facility management, as well as to provide and share large amounts of data quickly and stably, development is continuing in rivers, roads, ports and sewerage. Among these, optical fibers for the management of rivers and roads that are managed by the nation were opened to private business operators up to an extent whereby facility management remained unhindered. In FY 2009, the applicant recruitment regarding around 18,000 km of optical fibers was carried out.

Section 2 – Promotion of Technology Development and Research

1. Promotion of comprehensive technology development and research

The bureaus of MLIT, research institutes and Regional Development Bureaus are striving for further enhancement of cooperation systems with industries, educational institutions and the government. At the same time, they are pushing forward the cross-sector and comprehensive technology research and development and actively reflecting the achievements to public affairs, public construction and the transportation industry.

On the basis of the “3rd Science and Technology Basic Plan (FY 2006 to FY 2010)” and “Promotional Strategy on an Aspect

¹ The international standard of technical requirements relates to the geographic information determined by the ISO special committee (TC211) regarding geographic information. By forming data according to this standard, it is possible to utilize different data reciprocally even in different GIS systems.

² The system digitalizes different information about public affairs, and development of the environment for exchanging, sharing and coordinating the digitalized information between the related parties as well as business processes through the Internet.

³ The single point receives the qualification approval together for MLIT and the Cabinet Office Okinawa Integrated Office and special corporations (as of the time during regular qualification approval in FY 2009 and FY 2010).

Basis”, MLIT is unifying various essential technologies. In addition, MLIT is also resolving social issues through sophistication and is working on the promotion of “Social Technology” that recovers the livelihood of citizens.

Moreover, in order to make clear the direction of technology research and development, the “Technology Basic Plan (FY 2008 – FY 2012)” was formulated and technology research and development promotion is being carried out for realizing a society that MLIT is targeting.

(1) Measures in research institutes and independent administrative corporations

The measures in research institutes and the MLIT administered independent administrative corporations performing research as its own business are shown in the table. The independent administrative corporations are equipping themselves with publicity, transparency and autonomy, and are fully considering the aim of operating the business appropriately and effectively. While further strengthening the cooperation with related institutions including from the private sector, research is being carried out intensively and effectively according to social and administrative needs respectively.

Projects conducted at major research institutions etc. in FY 2009	
Research institutions etc.	Research description
Geospatial Information Authority of Japan	Conducting research and development that contributes to disaster prevention/ environment: clarifying the mechanism of the crustal movement of the Japanese archipelago, upgrading the measurement criteria system/making the geospatial information spatiotemporal and its application, realizing a society highly utilizing geospatial information.
Policy Research Institute for Land, Infrastructure, Transport and Tourism	Conducting trend analysis and providing a long-term prospect for the social economy, and studying administration methodologies inside/outside Japan, for the purpose of contributing extensively to policy making in the land/transport field.
National Institute for Land and Infrastructure Management	In order to contribute to the realization of a beautiful/safe/lively national land, researches on "Urban systems technology aimed at creating a society that utilizes Low-carbon and Hydrogen energy systems" "Conservation and Restoration of Estuary Environments" and "Implementation/control standards of infrastructural facilities taking chronological changes of effect/performance in to consideration" in and after FY 2009 in addition to existing research.
Meteorological Research Institute	Conducting research on clarification and projection of phenomena concerning weather/climate/earthquakes/volcanos/oceans: establishing evaluation methodologies for volcanic activities and conducting research on the detailed warning projection around Japan.
Japan Coast Guard	Conducting investigational research on equipment/materials used for maritime safety operations and also on scientific examination, and research on analyzing the condition of marine pollution of marine pollution, etc.

Major research conducted in FY 2009 by independent administrative institutions governed by the Ministry of Land, Infrastructure, Transport and Tourism, which should principally conduct researching activities	
Independent administrative institution	Research description
Public Works Research Institute	Conducting research and development to contribute to the efficient implementation of quality infrastructure and the development promotion of Hokkaido: "Advancement of maintenance technology for highway structures" and "Winter road safety and efficient use", etc.
Building Research Institute	Conducting research and development regarding housing/architecture and urban planning: Technology development for the low-carbonization of architecture/communities throughout the lifecycle" and "Technology development for maintaining the functionality/quick recovery of architectural structures after disasters," etc.
National Traffic Safety and Environment Laboratory	Conducting investigational research on the security assurance of land / air transportation and environment conservation: "Promotion of next-generation environmentally friendly vehicle development and commercialization" and "The practical and widespread use of fuel cell vehicles (FCVs)", etc. Performing conformity assessment for technology standards of automobiles. Performing technological verification concerning recalls.
National Maritime Research Institute	Conducting research on the security assurance of marine transportation, marine environment conservation, development of oceans and advancement of maritime transport: "Analysis of the cause of accidents at sea and study on preventive measures," "Development of technologies for reducing CO2 exhaust from ships" and "Research and development of floating offshore platforms," etc.
Port and Airport Research Institute	Conducting research and development for the realization of the formation of a safe and secure national land of comfort and a Lively society/economy : "Development of quantitative projection methods of changes on cross-section surfaces of sand shores with infragravity waves, return flow and nonlinear nature of waves in consideration" and "Development of deterioration projection systems for marine facilities based on the probabilistic methodology," etc.
Electronic Navigation Research Institute	Conducting research and development that liaises with "More efficient use of airspace and its capacity enhancement," "Capacity enhancement of crowded airports" and "Improvement of safety and efficiency with risk control and advanced technology," focusing on the field concerning air transportation management.

(2) Measures in Regional Development Bureaus

Engineering offices, and port and airport technology investigation offices are working together with the related offices in their own administrative areas, and are implementing the utilization and popularization of technology development and new technology dealing with regional issues such as materials for civil engineering and testing/investigating water quality, hydraulic experiments/design for effective/efficient implementation and the development of monitoring systems for environments, etc.

(3) Promotion of technology research and development in construction and transportation fields

Among the important research subjects regarding construction technology, the administration bureau is leading plan promotion especially on those issues with high urgency and wide target sectors. In the “Integrated Technology Development Project” which comprehensively and systematically implements research through the cooperation with industry, educational institutions and the government, the “Development of urban system technology to achieve a low-carbon society based on hydrogen energy systems” was newly started in FY 2009 and research and development on six issues is being worked on.

Additionally, in the transportation sector, technology research and development is being pushed forward efficiently and effectively through the cooperation of industries, educational institutions and the government, for contributing to safety assurance, convenience improvement and environmental preservation. In FY 2009, research and development on four issues were worked on, such as “Research and Development on Regional Public Transport System for the next generation”.

(4) Support on the technology research and development of private enterprises

As new technology development is bringing risk in terms of funds, support is being provided to the private enterprises that carry out technology development through exemption measures on the taxation scheme regarding the cost of experiments and research.

(5) Promotion of open appeal research and development support system

In order to push forward the technology revolution in the construction sector, through the “Construction Technology Research and Development Subsidy Program”, three types of public appeal are carried out. The Support System is a method for seeking proposals from the public regarding technology research and development that contributes to the sophistication of construction technology administered by MLIT, the improvement of international competitiveness, and the further promotion of research and development implemented by MLIT. The three types of public appeal are the fundamental application of research and development according to the research and development stage (to be put in practice after 10 years), practicality enhancement research and development (to be put in practice after five years), and the political issue resolving technology development (return the achievements to society in 2 – 3 years). In FY 2009, 20 new issues and 28 continuous issues were adopted.

Moreover, regarding the transportation sector, in order to establish new technology contributing to the safety of transportation institutions, the environmental integrity and the sophistication of transport services, the Japan Railway Construction, Transport and Technology Agency implemented the “Basic research promotion system in the transport field”. In FY 2009, five new issues and nine continuous issues were adopted.

2. Promotion of Utilization and Popularization of New Technology in Public Affairs

(1) New technology utilizing system in public construction

As a measure for actively utilizing useful new technology developed by private business operators in public constructions, MLIT is adopting the “New Technology Utilizing System in Public Construction” by utilizing the new technology database (NETIS¹). Through this measure, the achievement of quality assurance for public construction and cost reduction through the promotion of new technology development in the private sector and the utilization of outstanding new technology are expected.

(2) Support measures for new technology utilization

In order to promote new technology utilization in public construction, the drawn sample of special specifications and cost estimating information based on the actual situation of construction is being formulated in relation to the high usage need and effectiveness of new technology for streamlining order placing work.

Section 3 – Improvement of Construction Management Technology

1. Enhancing the cost estimating techniques in public construction

In order to ensure the transparency of public construction, various cost estimating standards are being released. In addition, the “unit-plus cost estimating method” is being worked on for accumulating and analyzing the actual data of construction of the same nature and is being used for cost estimating calculation. Moreover, recently there have been many cases where construction projects have been bid for with a price over the estimated price. Therefore, it is necessary to cope with this and the trial of a cost estimating method that is made to reflect the estimated price on the bidder’s quotation is being implemented.

The civil construction standard unit that constitutes the cost estimating standard prescribes the standard required amount necessary for each work type (e.g. labor, materials, machinery etc.) based on the investigation on national construction conditions.

The construction progress of public civil construction may change because of the changes in social environment and construction structure, or the appearance of new methods and work types. Therefore, investigation of the actual progress is

¹ New technology information is being released to the public on NETIS homepage (<http://www.mlit.go.jp/netis/>)

being carried out continuously for monitoring whether the actual progress is moving on the same track with the civil construction standard unit. At the same time, in case there is any change of work type, the figures of the civil construction standard unit are being revised immediately. Moreover, actual condition inspections are also performed on construction machinery possessed by the implementing party for grasping the basic price of the construction machinery, maintenance cost, and operation condition, as well as revising the figures of the construction machinery depreciation¹.

2. Measures on the ISO management system

With regard to requests for system reform of bidding and contracts, globalization of the construction market, requests for the cost reduction of public construction, and measures against environmental problems, in order to ensure public construction quality and lessen environmental burden, the compliance to the international standard, ISO management system, is being carried out on public construction.

Through obtaining the ISO9001 (Quality Management System) certificate, it is possible to ensure quality based on the order receiver's own responsibility. It can be expected that there will be an improvement in the efficiency of the quality management work for both order initiator and receiver while construction quality is ensured. In FY 2009, when the enterprises receiving construction work are certified by the ISO9001 Certificate and have excellent implementation ability (construction achievement), efficiency enhancement is carried out continuously, such as to replace monitoring (by the initiator) with verification of inspection records (by the receiver).

Moreover, through utilizing ISO14001 (Environmental Management Systems), a trial operation of ISO14001 was applied on public construction from the viewpoint of striving for environmental burden reduction caused by public construction. The efficient application method was also being reviewed. In FY 2009, the effects of the introduction and the inspection of the issues are being carried out continuously and future development is being reviewed.

Section 4 – Technology Development regarding Construction Machinery and Mechanical Equipment

(1) Development of construction machinery

Deployment of construction machinery is being worked on for river and road maintenance management, the efficiency enhancement of snow removal work and measures against disasters. Additionally, as for disaster emergency machinery that is necessary for constructing the regional disaster prevention system during a disaster, its introduction is being pushed forward.

Moreover, in order to improve performance efficiency, reduce costs and improve safety for these operations, investigations regarding construction machinery and implementation improvement, and technology development are being worked on.

(2) Streamlining maintenance management and improving the reliability of mechanical equipment

Many of the water gate facilities for rivers, dams, embankments and drainage pump facilities for protecting the lives and properties of citizens from disasters were built from the second half of the 1960s and the number of decrepit facilities is increasing. Therefore, at the same time as ensuring facility reliability through changing to a preventive preserving management of facilities, the lifetime of facilities is also being strived for.

(3) Utilizing the achievement of technology development in construction

In the disaster recovery work after the Chugoku and north Kyushu local downpour of July 2009 and Typhoon Melor (18th typhoon in 2009) of October 2009, water discharge is being implemented through the MLIT-developed water-discharging pumps with enhanced discharge ability.

¹ The figures indicate the lifecycle cost (e.g. depreciation cost, maintenance cost, management cost etc. of construction machinery) among the necessary cost for using construction machinery in terms of amount per hour or day