Financial Year 2014

Budget Highlights for Road

January 2014

Road Bureau City Bureau

Ministry of Land, Infrastructure, Transport and Tourism

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1. Basic Directions

The 2014 Budget Request prioritizes "Promotion of reconstruction from the Great East Japan Earthquake", "Protection of safety and security of citizens' lives" and "Revitalization of economy and neighborhood" and implement measures in these areas to bring early effects.

- Fully commit to early recovery and reconstruction of the affected areas by the greatest earthquake on record, the Great East Japan Earthquake, through the development of "Reconstruction Road" and "Reconstruction Support Roads".
- Focus on proper management of aging road stock to ensure the citizens' safety and lives through an in-depth investigation of existing roads, rehabilitation of aging road structures and improvement/development of road network for disaster damage prevention and redundancy arrangement.
- Develop distribution network and other fundamental infrastructure as a base for Japanese economic growth, while enhancing road safety to protect commuting students and citizens' daily lives.
- Strive to improve road administration for a thorough cost reduction and acceleration of project delivery, while promoting effective use of road stock and public private partnership.
- Take actions in accordance with "Basic Policy of New Toll Rates for Expressways" (released on December 20, 2013). Enhance the system with regard to the framework for expressway maintenance and rehabilitation in conformity to the "Interim Findings" (June 25, 2013) of the Arterial Road Committee of the Panel on Infrastructure Development, including amendment of Road Act to secure financial sources for rehabilitation.

2. Budget Highlights

1) Budget Table

Account	Project expenditure	Ratio to the previous fiscal year	National burden	Ratio to the previous fiscal year
Projects run by the MLIT	15,721	1.04	12,703	1.05
Reconstruction and other	11,829	1.04	8,811	1.04
Maintenance/management	2,684	1.07	2,684	1.07
Construction expenditures	1,208	1.03	1,208	1.03
Projects subsidized by the MLIT	1,040	1.04	644	1.05
Rural high-standard roads	866	1.05	487	1.05
Snow removal	152	1.03	101	1.03
Adjustment	22	0.82	57	1.09
Toll road projects	18,014	1.06	214	0.31
Total	34,775	1.05	(16,579) 13,562	1.01

(Unit: 0.1 billion JPY)

Note: in addition to the table above, there are "Subsidy for Comprehensive Social Infrastructure Development" (912.4 billion JPY) and "Disaster Damage Prevention and Safety Subsidy" (1,084.1 billion JPY) that will be made available for road development upon a request by a local government. In addition, there is a national burden of 135 billion JPY for the recovery and reconstruction program from damages of the Great East Japan Earthquake.

Also, there is a Subsidy for Comprehensive Social Infrastructure Development in the recovery and reconstruction program that will be made available for road development upon a request by a local government.

Note 1: this table includes loan reimbursement (78 billion JPY of national burden).

Note 2: this table excludes administrative expense (1.1 billion JPY of national burden).

Note 3: totals may not always coincide with the aggregate of the relevant figures because they are rounded.

Note 4: For comparison between years, the construction expenses of the previous year include administrative fees for occupation.

Note 5: The amount in parenthesis in the table is affected by the abolition of the special account for social infrastructure development projects.

2) Recovery and reconstruction from the Great East Japan Earthquake

Develop Sanriku Coastal Road and other "Reconstruction Roads" and "Reconstruction Support Roads" as a post-disaster reconstruction project in conformity to the "Basic Policy on the Reconstruction from the Great East Japan Earthquake" (decided by the Reconstruction Task Force on July 29, 2011).

Newly introduced schemes

i) Extension of toll collection period to cover expressway reconstruction expenditures Based on the "Interim Findings" (June 25, 2013) of the Arterial Road Committee of the Panel on Infrastructure Development, the redemption period has been extended beyond 45 years of the original period after the expressway companies were established.

ii) Continual development of smart interchanges

A new national subsidy system is introduced to support a part of smart interchange construction expenditures.

iii) Expansion of responsibility of national government in its road repair projects Create a scheme to assign responsibilities for appropriately inspecting nationallymanaged bridges and tunnels and surveying deformation of slopes over the time within a 5-year timeframe which is provided by the Financial Act.

Intensive Support for Disaster Damage Prevention, Rehabilitation of Aging Structures and Safety Enhancement of Neighborhood (Disaster Damage Prevention and Safety Programs Subsidies)

We offer a subsidy for Disaster Damage Prevention and Safety Programs set aside for restructuring infrastructure to protect citizens' safety and lives and for enhancing safety of neighborhood. This will enable a total support for disaster damage prevention from potentially large-sized disasters, including potentially large-sized earthquakes in Nankai Trough and Tokyo Metropolitan Area, accompanying tsunami and other wind/flood/landslide-related disasters, and comprehensive scheme for aging structures, such as bridges and tunnels thorough inspection, and traffic accident prevention package on school roads.

5) Comprehensive Social Infrastructure Development (Subsidy for Comprehensive Social Infrastructure Development)

We will offer a total support for enhancing competitiveness of cities and regions by

improving distribution network with better access roads to interchanges and attracting private investment in the areas.



Change in Subsidy System

Amount in <> refers to national burden.



(An example of prioritized allocation of a subsidy for Disaster Damage Prevention and Safety Programs Subsidies to a road project)

(Example of application of a Subsidy for Comprehensive Social Infrastructure Development to a road project)



3. Overview of Major Budget Items

(1) Support for reconstruction from the Great East Japan Earthquake

i) Development of "Reconstruction Roads" and "Reconstruction Support Roads"

- We have already started constructions of main structures on the Reconstruction Roads and Reconstruction Support Roads and will continue to utilize the technology capacity in the private sector through the Public Private Partnership to progress the development for early completion.
- Land survey and acquisition of "Reconstruction Roads" and "Reconstruct ion Support Roads" started on a segment-by-segment basis. Earliest seg ments started construction within one year after the road project was n ewly planned.
- We use private technical strengths in carrying out projects (through PP P) to move forward smoothly and enhance project management.

(a total of 11 teams are working as of the end of November 2013)





ii) Recovery and development of Joban Expressway

• We will swiftly recover and develop Joban Expressway to support reconstructi on of the damaged areas.



Note: The section between Minami Souma IC and Joban Tomioka IC is still under high dose of radioactive substances. The construction of this section is carried out cautiously by controlling workers' radiation exposure.

(2) Protection of citizens' safe and secure lives

i) Proper maintenance of aging roads

- Provide a sustainable and long-life infrastructure by following the "maintenance cycle", including proper inspections and repairs of bridges, tunnels and other road structures.
- · Japan has a total of 1.2 million km-long road network.
- Of which, **0.9 million km or 80%** of the entire road network are managed by municipalities.
- Japan has about 0.7 million road bridges. Of which, **a half million bridges or 70%** of the total are managed by municipalities.



Many of those municipal bridges and tunnels were intensively constructed during and after our high-growth period (in late 1950s to 1960s) and are old now.

[Number of bridges with the age of 50 and older: 18% (2013) to 43% (2023)]



• An increasing number of municipal bridges are closed.

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[Number of road bridges that are closed or restricted for vehicles increased from 977 in 2008 to 2,104 in 2013.]

- Proper maintenance and management of aging road structures
 - Establish the "maintenance cycle", which consists of inspection, evaluation and repair based on the evaluation, for bridges, tunnels and other road structures.
 - National government supports municipalities to rehabilitate, reconstruct and remove their aging bridges through prioritized allocation of the subsidies and technical advice for inspection and repair work, while rehabilitating and reconstructing some of bridges on behalf of the responsible local governments.

Enforcement of the truck weight regulation

Accelerate permit issuance for special vehicle use on road and firmly instruct violators of vehicle weight regulation.

ii) Disaster damage prevention of road

- We will reorganize emergency transport roads and establish an institutional cooperation for region-wide road re-opening work in the event of large-sized disaster.
- Total length of the nationwide emergency transport roads is about 98,000km (as of the end of September 2013).
- 79% of the bridges on the emergency transport roads are considered quake-resistant (as of the end of FY2012).
- 60% of road slopes and other potentially dangerous spots have been stabilized (as of the end of FY2012).



iii) Completing the missing link of the expressway network across the nation

- We will develop expressways that are safer, greener and more functional than general roads.
- We will also connect the expressways so that they will work as "lifeline".
- Fatal and injury accident rate on expressways is one-tenth compared with that on general roads. CO2 emission from expressways is about two-third of general roads, while expressways can accommodate about 7 times of traffic per lane.
- Expressways work as evacuation routes and emergency transport routes in the event of a disaster.



iv) Burying electric cables underground

- We will continually bury electric cables underground as a means of removing potential obstacles in the event of disaster and also to secure safe and comfortable traffic space, and create a good landscape for tourists.
- Japan is behind the major cities in other countries in terms of ratio of buried power poles.
- · Japan (urban arterial roads): 15.3 % (as of the end of FY2012)*2
- [•] London and Hong Kong: 100% (as of 2014), Singapore: 86% (as of 1997)*₃

Raise awareness of joint construction methods to bury power poles underground when a road is newly constructed or widened and provide interest-free loan for power cable managers.



Photos: [left] Road block by fallen power poles, [center] Power poles hindering pedestrian's traffic [right] Power poles and cables spoiling the landscape

*2: based on road length, *3: based on cable length

v) Provide safe and secure walking space including school road

- We will prioritize continual joint inspection in addition to the traffic safety program based on the results of the "Emergency inspection of school roads".
- "Emergency inspection of school roads" were carried out by the end of August after students on the school road were killed by a running vehicle in Kameoka City, Kyoto Prefecture in April 2012.
- The fatalities of pedestrians represent the highest number of fatalities among various means of transport, comprising 37% (1,634 deaths).
 - We will support traffic safety program based on the results of the "Emergency inspection of school roads" that was carried out in 2012.
 - We will continue to support joint inspections, evaluation of measures and other strategic programs ("Safe school road program") in an intensive manner.

[Emergency inspection of school roads as of the end of FY2012]

Number of inspected schools: 20,160

Identified spots to be improved: 74,483

of which spots that have been improved: 42,662 (as of the end of FY2012)

Identified spots that are road administrator's responsibility: 45,020

of which spots that have been improved:

22,818 (as of the end of FY2012)



<Improved sidewalk for safety>

Note: about 80% of identified spots are to be improved by the end of FY2013.

vi) Introducing universal design concept to walking space

- We will introduce a universal design concept to walking space of roads connecting stations, public facilities, and hospitals and station squares to realize a safe and secure society where everybody can engage in activities.
- 81% of designated roads^{*4} have been improved based on a barrier-free concept as of the end of FY2012.

The national government supports "barrier-free improvement" of essential roads for everyday life (access to transport facilities, hospitals, and public buildings) that are designated by municipalities.



Photos: [left] Development of a wider sidewalk, [center] Installment of warning tile blocks for the visually impaired, [right] Installment of an elevator

Note *4: Specific roads connecting stations, public facilities and hospitals that require improvements for smoother foot traffic for a number of older persons and physically impaired persons, which are designated by Minister of Land, Infrastructure, Transport and Tourism. To be barrier-freed by FY2020 in accordance with the Act on Promotion of Smooth Transportation, etc. of Elderly Persons, Disabled Persons, etc.

(3) Revitalization of economy and neighborhood

i) Enhance Logistics Network for Efficiency

- To provide speedy and smooth freight movement, we will prioritize development of essential roads, including the ring roads in the three major metropolitan areas.
- 60% of total traffic on the Inner Circular Route of the Tokyo Metropolitan Expressway is through-traffic.
- After the Metropolitan Intercity Expressway was opened, factories were developed three times in the vicinities of the Expressway as quickly as the national average in terms of site area.
- Number of time-zone deliveries increased from 62.2% of the total deliveries in 2005 to 71% in 2010.





ii) Smart use of network

- With our ITS technologies, we will try to safely, wisely and efficiently utilize the network, from the metropolitan areas through local areas.
- About 10,000km of expressways have been developed and the three ring roads in the Tokyo Metropolitan Area will be 80% complete 2 years from today.
- Expressways in European countries and the United States have an average of 4 lanes, while over 30% of expressways in Japan have only one lane for each direction.
 - Make the best use of ITS technologies to survey how our roads are used.
 - Because drivers in Japan do not often use the expressways, which provide a good driving experience and help to save fuel by two-third of general roads, and frequent congestions depending on road and time of day, Japan's actual fuel economy remains only a half of its world-leading level of official fuel economy.
 - We will use the ITS technologies and closely survey and analyze how vehicles flow, so that we can implement measures to optimize the traffic flow.



Note: All fuel economies in the figures are the ones of passenger cars.

Source:(International Energy Agency) and Japan's fuel economy data from 2007 were from Japan Automobile Manufacturers Association.

- Optimize the occupancy rates* of high-standard road network through a smart use of roads.
- Three ring roads in the Tokyo Metropolitan Area fluctuate their occupancy rates depending on the route and time of day. With the occupancy rates of 1,400 vehicles per hour lane, a road can provide 70km/h travel for vehicles.
- We will try to provide the safest traffic service in the world through a traffic optimization by IT technologies and toll discount package, even though our expressways have fewer lanes than world-standard.

Note: "occupancy rate" refers to a traffic volume per hour lane. By diverting traffic flow to the roads with less traffic, roads can accommodate more traffic.



iii) Use of PPP for expressway projects

- In order to rehabilitate Tokyo Metropolitan Expressways under a collaboration with urban redevelopment, we will enhance solid crossing road system. Members will bring the plan into shape by identifying institutional issues on the effective use of overhead space of the roads and preparing countermeasures using "Tsukiji River" section as a model.
- We will promote concession contracts in carrying out the Prefectural Road Public Corporation's toll road projects.



iv) Road sings in English

- We will replace the road signs in Roman letters for English ones for foreign tourists.
- As many as 10 million foreign tourists have visited Japan in 2013, the figure almost double in the last decade.
- What foreign tourists find inconvenient most during the stay is the road signs and maps written in Japanese.
 - In response to the finding, we are trying to improve the signs from Roman letters to English from those installed in the vicinity of the Diet Building since August 2013.
 - In addition, road signs in other 49 major tourist destinations have been improved with a help of international students since September 2013.



v) Enhancement of various services of Michinoeki roadside parking stations (the second

stage)

- We will help to upgrade the role of Michinoeki roadside parking stations from a merely service offering place for visitors to a center for the local people to tackle with their issues.
- To that end, we will renovate the existing Michinoeki facilities, add disaster prevention facilities and meet other needs in cooperation with other agencies, while promoting cooperative activities between Michinoeki stations.



vi) Installment of Smart Interchanges

- We will develop smart interchanges to promote effective use of existing expressway network, revitalize local economy and mitigate congestions.
- We will introduce a new national subsidy scheme to financially support expressway companies to develop smart interchanges.
- Average interval between interchanges on an expressway in Japan is 10 km, about twice as long as those in the European countries and the United States.
- About 50% of factories above a certain size^{*5} are located within a range of 5 km from an interchange.
 - Smart Interchanges have been operative in 70 locations and new Smart Interchanges will be under construction (as of the end of FY2013).

[An example of construction of Hashie Smart IC on Kita Kanto Expressway]

- The number of companies that constructed in the neighboring industrial parks has increased by 30% since Hashie Smart IC was opened.
- The Smart IC stimulated the employment in the area.



Note *5: Land of a size of 1,000 m² or more acquired for the purpose of construction of a factory or an institute. (Source: Survey of factory locations)

(Reference Documents)

Proposed Amendment of the Road Act

<A road budget-related bill>

(A bill that introduces strategic rehabilitation programs and local revitalization programs through smart interchange development)

The Amended Road Act will provide a stable funding for the swift and strategic rehabilitation programs for the aging Tokyo Metropolitan Expressway. The Act also will allow to extend the expressway toll collection period beyond the current termination year, will broaden the scope of the current solid crossing road system to cover existing roads and will financially support smart interchange development.



Extension of toll collection period to cover expressway reconstruction expenditures

- It will be necessary to secure stable funding that enables swift and systematic renewal project for the aging Tokyo Metropolitan Expressway and other expressways.
- To this end, a new scheme is introduced to extend toll collection period to cover expressway reconstruction expenditures after the debt redemption is complete.

	Length	Estimated project expenditure				
Structural replacement ^{*1}	8km	380 billion JPY				
Major rehabilitation ^{*2}	55km	250 billion JPY	*1: Structural replacement involves			
Total		630 billion JPY	*2: Major rehabilitation involves extensive repair work on structures.			

<Outline of the Tokyo Metropolitan Expressway rehabilitation plan>

<Sections to be constructed in the FY2014>



Route 1 Haneda Line Higashi Shinagawa Pier> (opened in 1963)



<Route 1 Haneda Line Landfill portion in Samezu> (opened in 1963) iii) Cracking and caveii) Buckling of steel sheet pile. dfill under construction) in in the road surface Sea surface i) Existing tie rod was broken. Landfill 「鋼矢板 Damage due to temporary 50 years have passed with a Cave-in in the road surface structure temporary structure. (observed in 2008)



Highlights of Basic Directions about New Toll Rates for Expressways



Change in Public Works-related Expenditures

Lengths of High-standard Arterial Highways in Service

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		Length of complete road network	Scheduled total length by the end of FY2013 Progress (%)		Scheduled total length by the end of FY2014 Progress (%)		New sections to be opened in FY2014
	High-standard Arterial Highway System	About 14,000 km	10,696km	(76%)	11,114km	(79%)	418km
	National expressway	11,520 km	<845km> 8,408km	(80%) (73%)	<863km> 8,658km	(83%) (75%)	<18km> 250km
	National highways with access control (incl. Honshu-Shikoku Bridge Expressway)	About 2,480 km	1,443km	(58%)	1,593km	(64%)	150km

Note 1: Numbers in brackets <> indicate the lengths of national highways with access control that run in parallel with an expressway. (They are included in the total.)

2: Scheduled total length of national highways with access control includes national highway bypass sections.

3: The total length of national expressways is provided in the Article 3 of National Development Arterial Express Construction Act and the Article 3 of National Highway Act. The total length of Honshu-Shikoku Bridge Expressway and national highways is designated by the Minister of Land, Infrastructure, Transport and Tourism.

Budget Table for Road

(unit: million JPY)

	Financial Y	ear 2014 (A)	Previous Fina	ancial Year (B)	Ratio (A) / (B)		
Account	Project expenditure	National expenditure	Project expenditure	National expenditure	Project expenditure	National expenditure	Remarks
Projects run by the MLIT	1,572,072	1,270,280	1,504,736	1,212,215	1.04	1.05	 Toll road project expenditures include construction interests that each NEXCO pays.
Reconstruction and other	1,182,933	881,141	1,136,193	843,672	1.04	1.04	 Toll road project expenditures include subsidy for expressway access development, loans for continuous overhead crossing projects and loans for wiring work of power cables.
Maintenance and management	268,382	268,382	251,488	251,488	1.07	1.07	 This table excludes administrative expense (1.1 billion JPY of national expense).
Construction expenditures	120,757	120,757	117,055	117,055	1.03	1.03	4. In addition, there is a national expense of 135 billion JPY for the recovery and reconstruction program from damages of the Great East Japan Earthquake. Also, there is a Subsidy for Comprehensive Social Infrastructure Development in the recovery and reconstruction program to be allocated to road development upon request from local
Projects subsidized by the MLIT	104,032	64,430	100,112	61,412	1.04	1.05	 Totals may not always coincide with the aggregate of the relevant figures because they are rounded.
Local high-standard roads	86,638	48,652	82,634	46,398	1.05	1.05	 For comparison between years, the construction expenses of the previous year include administrative fees for occupation.
Snow removal	15,171	10,114	14,751	9,834	1.03	1.03	 The amount in parenthesis in the table is affected by the abolition of the special account for social infrastructure development projects.
Adjustment	2,223	5,664	2,727	5,180	0.82	1.09	
Toll road projects	1,801,441	21,441	1,700,035	68,337	1.06	0.31	
Total	3,477,545	(1,657,943) 1,356,151	3,304,883	1,341,964	1.05	1.01	In addition, there are "Subsidy for Comprehensive Social Infrastructure Development" (912.4 billion JPY) and "Disaster Damage Prevention and Safety Subsidy" (1,084.1 billion JPY) to be allocated to road development upon request from local governments.

Nationwide High-standard Arterial Highways Network

(Road sections opened in FY2014 are added to the FY2013 map)



Expressway Network in the Metropolitan Areas -Expressway Network in Tokyo Metropolitan Area





-Expressway Network in Osaka Area





-Expressway Network in Nagoya Area





Report a Road Problem

Please call #9910, if your request is related to a road hazard that needs immediate attention (e.g. fallen objects, unusually dirty surface and potholes).

Customer Service

The Customer Service Office answers your questions concerning road. You can reach us at: http://www.mlit.go.jp/road/110.htm