Priority Plan for Infrastructure Development

The Cabinet Decision on May 28, 2021



Priority Plan for Infrastructure Development



1. What is the Priority Plan for Infrastructure Development?

- ✓ The Priority Plan is formulated to promote the infrastructure development projects in an intensive, effective and efficient manner in accordance with the "Act on Priority Plan for Infrastructure Development (Act No.20 of 2003)." The Cabinet decision is needed for formulation of the priority plan.
- ✓ The Act targets at projects related to roads, traffic safety facilities, railways, airports, ports/harbors, aids to navigation, park/green space, water supply system, sewage system, rivers, erosion and land slide prevention, steep slope and coast revetment, including the projects or affairs to be undertaken in connection with those projects in order to enhance the effectiveness.
- ✓ 1st Priority Plan (from FY2003 to FY2007), 2nd Priority Plan (from FY2008 to FY2012), 3rd Priority Plan (from FY2012 to FY2016), 4th Priority Plan (from FY2015 to FY2020), and 5th Priority Plan (from FY2025) have been formulated.
- ✓ Major planning matters
 - Priority objectives regarding the implementation of the infrastructure development projects during the period for the plan
 - Overview of the infrastructure development projects that should be implemented in an intensive, effective and efficient manner during the period for the plan in order to accomplish the priority objectives.
 - Measures for implementing the infrastructure development projects in an intensive, effective and efficient manner, etc.

2. Background of the formulation of the 5th Priority Plan

October 21, 2019	Consultation with the Council of Infrastructure Development and the Council of Transport Policy regarding revision of the Priority Plan for Infrastructure Development
March 31, 2021	Presentation of the 5th Priority Plan (preliminary draft)
April 6, 2021	Public comment and hearing of opinions from the prefectural governments, etc.
May 11, 2021	Presentation of the 5th Priority Plan (draft)
May 25, 2021	Report by the Council of Infrastructure Development and the Council of Transport Policy
May 28, 2021	Cabinet decision

Priority Plan for Infrastructure Development



History of the Priority Plan for Infrastructure Development

Nine plans were formulated by project area: Setting the project amount by each plan

Roads

Traffic safety facilities

Airports

Ports/ Harbors

Urban parks

Sewerage

Flood management

Steep slope

Coasts

,etc.

Criticism against the nine plans

- The plans resulted in loss of flexibility in budget allocation
- Vertically-segmented planning made mutual collaboration difficult.
- The plans were no more than a means for acquiring budget.

,etc.

Criticism against infrastructure development

- Prioritization of projects and efficiency of operation were not promoted.
- Opinions from the local governments and citizens were not fully reflected.

Unification

Priority Plan for Infrastructure Development (Act on Priority Plan for Infrastructure Development Act No.20 of 2003)

1st Priority Plan (from FY2003 to FY2007), 2nd Priority Plan (from FY2008 to FY2012), 3rd Priority Plan (from FY2012 to FY2016), 4th Priority Plan (from FY2015 to FY2020), 5th Priority Plan (from FY2025)

BEFORE

Examples of the project expenses in the former long-term plans

Five-Year Road Development Plan (from FY1998 to FY2002)

A total 46.2 trillion yen, which includes:

15.09 trillion yen for the development of new arterial high-standard highways that extend to a length of 1,360 km

Flood management project Seven-Year Plan (from FY1997 to FY2003)

A total 11.6 trillion yen, which includes:

- Formation of safe infrastructure built on the lessons from the Great Hanshin-Awaji Earthquake, etc. 11.1 trillion yen
- O Securing of safe life by dealing with the frequency of drought issue 2.4 trillion yen

Port/Harbor development Seven-Year Plan (from FY1996 to FY2002)

A total 4.3 trillion yen, which includes:

- O Formation of hubs in international marine transportation network 1.57 trillion yen
- O Nationwide improvement of the logistic infrastructure corresponding to the multimodal transportation, etc. 450 billion yen

CURRENT PRIORITY PLAN

Major planning matters of the Priority Plan for Infrastructure Development

- <u>Priority objectives</u> regarding the implementation of the infrastructure development projects during the period for the plan (<u>instead of recording</u> the total amount of future project expenditure).
- Overview of the infrastructure development projects that should be implemented in an effective and efficient manner during period for the plan in order to accomplish the priority objectives.
- Measures for implementing the infrastructure development projects in an effective and efficient manner



Overview of the 5th Priority Plan for Infrastructure Development (1)



Chapter 1: Changes in social landscape after 4th plan

- (1) More catastrophic/frequent natural disasters, (2) changes in local communities due to falling population, etc., (3) changes in domestic/international economic conditions,
- (4) rapidly aging infrastructure, (5) accelerating digital innovation, (6) movements towards realizing green society (e.g., carbon neutrality in 2050), diversifying lifestyles and values

COVID-19-driven changes (needs for digitalization, reshoring of supply chains, growing interest in moving to rural areas and increased awareness of the risk of Tokyo centralization)

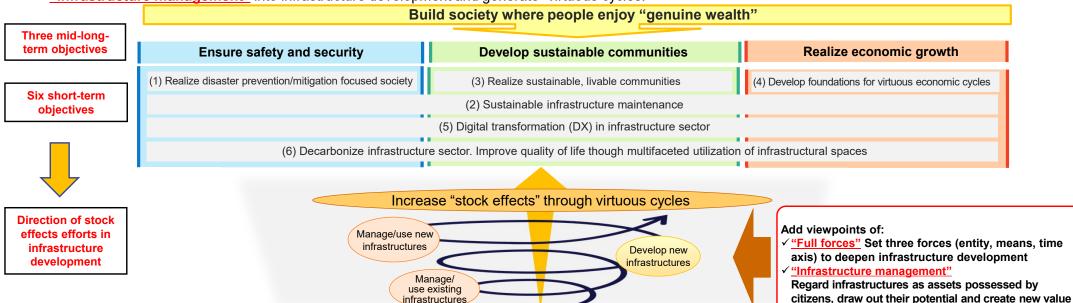
Chapter 2: Direction of infrastructure development initiatives

[Mid-long-term objectives of infrastructure development]

- Build a society where people truly enjoy "genuine wealth."
- To realize the above, focus on developing social infrastructure that can contribute to 3 mid-to-long term objectives, "Ensuring safety and security," "Development of sustainable communities," and "Realization of economic growth," to maximize stock effects.

[5-year short-term objectives and direction of efforts towards these objectives]

- > Set 6 short-term objectives for the next 5 years based on the 3 mid-to-long term objectives and changes in social landscape.
- In particular, it is necessary to develop foundations for digital transformation (DX) in the infrastructure sector, decarbonization, supply chain enhancement/optimization, new population flows, with <u>"new normal"</u> and <u>realization of carbon neutrality in 2050</u> in mind.
- To <u>maximize "stock effects"</u> of infrastructure development towards achieving the objectives, it is essential to introduce the viewpoints of <u>"full forces"</u> and "infrastructure management" into infrastructure development and generate "virtuous cycles."



Support sustainable, quality infrastructure development

Ensure stable/sustainable public investment for strategic/planned infrastructure development

Keep and develop human resources for the construction industry, which supports infrastructure development, and improve productivity

(Establish appropriate wage standard, reduce long work hours and realize 5-day week, promote i-Construction, spread Construction Career Up System, etc.)

Overview of the 5th Priority Plan for Infrastructure Development (2)



Chapter 3: Key objectives and measures during the period

Key objective 1: Realize disaster prevention/mitigation focused society

- 1-1 Promote "basin management," etc. based on impact of climate change (Promotion of "basin management," etc.)
- 1-2 Mitigate risks for earthquakes, tsunami, and other imminent disasters (Seismic retrofit, etc. of public civil engineering facilities, etc.)
- 1-3 Ensure transportation availability during disasters

(Development of disaster-resistant transportation)

1-4 Enhance risk control measures based on disaster risks

(Enhancement of TEC-FORCE, establishment of evacuation systems, acquisition of human resources for construction industry, etc.)

Key objective 4: Develop foundations for virtuous economic cycles

4-1 Enhance/optimize overall supply chains

(Formation of logistics networks, logistics DX)

- 4-2 Develop foundations for revitalizing tourism, etc., which support local economies (Enhancement of international airports' functions, development of environments to receive tourists, etc.)
- 4-3 Enhance global competitiveness of cities by stimulating private investment (Enhancement of cities' global competitiveness, public-private partnership via PFIs)
- 4-4 Strategically develop Japanese "Quality Infrastructure Systems" overseas (Assistance for companies working on overseas expansion)

Key objective 2: Sustainable infrastructure maintenance

- 2-1 Promote systematic infrastructure maintenance
 (Shift to preventive maintenance and establishment of maintenance systems)
- 2-2 More advanced/efficient infrastructure maintenance with new technology (Promotion of use of new technologies and data)
- 2-3 Optimize infrastructural stocks by centralization, reorganization, etc.

 (Promotion of efforts of centralizing/combining facilities)

Key objective 5: Digital transformation (DX) in infrastructure sector

5-1 Reform work style and improve productivity through digitalized/smarter infrastructure development

(Establishment of digital platforms, DX promotion at construction sites, etc.)

5-2 Create new value of infrastructures through social implementation of new technology

(Promotion of smart cities, AI terminals, etc.)

Key objective 3: Realize sustainable, livable communities

- 3-1 Develop attractive, compact cities
 (Promotion of Compact and Networked Structure, creation and improvement of open spaces,
- 3-2 Develop foundations to promote new population flows and interaction among communities

(Development of road/railway/air/marine transportation networks)

3-3 Develop safe moving/living spaces

(Assurance of children's and elderly people's safety)

3-4 Promote barrier-free access/universal design (Promotion of easily accessible public facilities and more open mind-set towards accessibility)

Key objective 6: Decarbonize infrastructure sector. Improve quality of life though multifaceted utilization of infrastructural spaces

6-1 Realize a green society

(Global warming countermeasures (development of carbon-neutral ports, promotion of low-carbon urban development, promotion of adoption of wooden buildings, etc.), promotion of green infrastructures, etc., towards carbon neutrality in 2050)

6-2 Reorganize infrastructural spaces into more people-focused ones (Creation of comfortable, walkable urban areas, promotion of infrastructure tourism, etc.)

Chapter 4: Policies to ensure the plan's effectiveness

- 1. Develop priority plans for infrastructure development in regional blocks, 2. Implement public project evaluations that take account of various effects, 3. Enhance linkage between policies and cooperation among national and regional public bodies, 4. Ensure participation of diversified entities and transparency/fairness in infrastructure development,
- 5. Enhancement of foundations for integration of infrastructure development data, and 6. Follow up the priority plan

Key objective 1: Realize disaster prevention/mitigation focused society



Legend: KPI

<Vision>

Create a society where resiliency and resistance measures are implemented against increasingly catastrophic/frequent or imminent natural disasters (e.g., storm/flood/landslide disasters, earthquakes, tsunamis, eruptions, heavy snow) and thus people can live in peace.

1-1: Promote basin management, etc. based on impact of climate change

■ Promote "basin management"



■ Promote lifestyle and land use considering disaster prevention/mitigation



■ Build roads for rescue activities during disasters





Heavy rain in July 2020,

- Of Class A and B river systems, number of river systems which an integrated basin management project has been set up for [FY2019→FY2025: approx. 550]
- Rate of improvement to address post-war, greatest floods in Class A and B rivers [(Class A rivers) FY2019: approx. 65%—FY2025:approx. 73%, (Class B rivers) FY2019: approx. 62%—FY2025:approx.71%]
- Percentage of river systems with systems to discharge water in advance [FY2019:0%→FY2021:100%]
 Development rate of bridges in river crossings and structures adjacent to rivers on emergency.
- O Development rate of bridges in river crossings and structures adjacent to rivers on emergency transport roads that require countermeasures against scouring and washed away [FY2019:0%—FY2025: approx. 28%]
- Number of municipalities with disaster control guidelines [FY2020:0→FY2025:600]

1-2: Mitigate risks for earthquakes, tsunami, and other imminent disasters

 Promote seismic retrofit of and tsunami measures for public civil engineering facilities





■ Improve hazardous, densely built-up urban areas



Increase safety of densely built-up areas by developing evacuation areas (parks, open spaces)

- Seismic retrofit rate of public civil engineering facilities [(seismic retrofit rate of bridges on emergency routes) FY2019:79%→FY2025:84%, etc.]
- Size of hazardous, densely built-up urban areas and implementation rate of non-infrastructural measures that contribute to improvement of local disaster controlling capability [(Size) FY2020: approx.2,220ha→FY2030: mostly eliminated (non-infrastructural measures that contribute to improvement of local disaster controlling capability) FY2020: approx.46%→FY2025:100%]

1-3: Ensure transportation availability during disasters

■ Build disaster-resistant road networks



Use two non-affected lanes to ensure transportation function

■ Maintain coastal function during disasters



Examples of storm surge/high waves measures

■ Promote inundation measures at underground stations



 Eliminate utility poles to prevent road blockage during disasters



- Start rate of 4-lanes project in priority development sections of high standard (toll) roads
 - [FY2019: approx.13%→FY2025: approx. 47%]
- Of ports and harbors requiring implementation of storm surge/high wave measures in order to maintain marine transportation networks, percentage of those that can maintain or restore their functions at early stage [FY2020:0%→FY2025:14%]
- Completion rate of inundation measures at underground stations and power facilities that are at risk of inundation in event of heaviest-class rainfall [FY2020:40%→FY2025:70%]

1-4: Enhance risk control measures based on disaster risks

■ Ensure human resources for construction sites to support infrastructure development

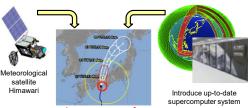


Improve work conditions and workstyle of skilled construction workers by promoting permeation of Construction Career Up System

 Improve mobility of TEC-FORCE members and introduce ICT-driven, advanced material and equipment



■ Improve typhoon forecast systems



Improve accuracy of typhoon forecast

- Promote heavy-snow management for roads
- Introduction rate of Construction Career Up System based constructions in country, prefectures, and municipalities [End of FY2025:100%]
- Participation rate in ICT equipment operation drills, training, courses, etc. for TEC-FORCE members who conduct disaster damage surveys on public civil engineering facilities [FY2020: 36%—FY2025:100%]
- Accuracy of typhoon forecast (forecast errors in location of typhoon centers) [FY2020:210km—FY2025:180km]

Key objective 2: Sustainable infrastructure maintenance



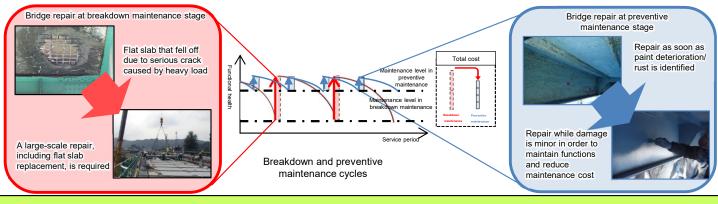
Legend: KPI

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Realize sustainable infrastructure maintenance to ensure that their functions of are continuously carried out properly in the future, by reducing total costs for maintenance and rebuilding through a full shift to preventive infrastructure maintenance, as well as by making infrastructure maintenance. more advanced and efficient by promoting introduction of new technology

2-1: Promote systematic infrastructure maintenance

■ Shift to preventive infrastructure maintenance



Establishment of infrastructure maintenance systems in local public bodies





Maintenance service training at a dam

Maintenance service training at a port

 Repair rate of facilities to shift to preventive infrastructure maintenance Roads: (bridges) [FY2019: approx. 34%→FY2025: approx. 73%] (paving) [FY2019:0%→FY2025:100%] Sand erosion control: [FY2019:91.7%→FY2025:92.4%] Coasts: [FY2019:84%-FY2025:87%] Airports: [FY2019:100%-FY2025:100%] Railways: [FY2020:14%—FY2025:100%] Parks: [FY2019:36%-FY2025:100%] Government buildings: [FY2020:24%→FY2025:100%]

Rivers: [FY2019:0%-FY2025:100%] Sewerage: [FY2019:0%→FY2025:100%] Motorways: [FY2020:0%→FY2025:100%] Public housing: [FY2025:85%]

Dams: [FY2019:82%→FY2025:96%] Ports: [FY2020:83%→FY2025:87%]

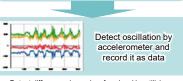
 Number of people who received maintenance training at local public bodies, etc. Port: [FY2019:2,202 people→FY2025:4,000 people] Railway: [FY2020:586 people-FY2025:1,000 people] Park: [FY2019:244 people → FY2025:440 people]

Road: [FY2019:6,459 people—FY2025:10,000 people] River/dam/sand erosion control/sewerage: [FY2019:4,832 people—FY2025:9,900 people] Airport: [FY2019:261 people → FY2025:500 people] Motorway: [FY2019:9 people→FY2025:50 people] Government buildings: [FY2019:12,633 people→FY2025:17,000 people]

2-2: More advanced/efficient infrastructure maintenance with new technology

Promote spread/introduction of new infrastructure maintenance technologies





Detect differences in road surface level by utilizing accelerometer on smartphone

Promote data utilization in maintenance

Number of matching seeds with needs through Infrastructure Maintenance National Conference [FY2019:169 cases→FY2025:400 cases]

Test more efficient survey

methods for sewage force main

2-3: Optimize infrastructural stocks by centralization, reorganization, etc.

■ Promote centralization/reorganization efforts



Removal for centralization>

The aging overpass was removed to centralize functions to an adjacent bridge

O Number of efforts towards facility centralization/reorganization

Roads percentage of local public bodies considering centralization, removal, or function reduction of facilities [FY2019:14%—FY2025:100%]

percentage of discontinuation of aging, small land locks, etc. [FY2019:31%—FY2025:41%] Rivers

Coasts : implementation rate of safe sluice/land lock closing systems in areas that can be affected by potential Nankai megathrust earthquakes, Tokyo inland earthquakes, subduction zone earthquakes around Japan and Chishima trenches and other massive earthquakes [FY2019:77%—FY2025:85%]

Sewerage: number of regions that centralized sewage treatment facilities to cover wider areas [FY2019:0 places→FY2025:300 places]

: percentage of ports that considered reorganizing existing facilities or centralizing or converting their functions [FY2019:56%—FY2025:100%]

Aids to navigation :percentage of verification towards revision for annual buoy replacement quantity [FY2020:0%—FY2025:100%] : number of park managers that implemented urban park centralization/reorganization for better stock capabilities [FY2019:24 bodies - FY2025:60 bodies]

Government buildings: number of government buildings aggregated by the construction of new joint government buildings [FY2019:0 buildings—FY2025:30 buildings]

Key objective 3: Realize sustainable, livable communities



Legend: KPI

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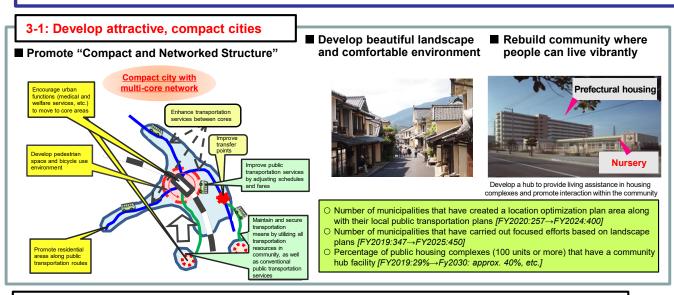
Build foundations to support new lifestyle, workstyle, and living style, such as teleworking and dual habitation, by creating a multi-core-cooperation-based country where areas with a multitude of individuals and companies are dispersed across and these areas cooperate with each other as cores, rather than a country with Tokyo as a single core. In addition, realize sustainable, livable communities and regions through town development with universal design so that everyone, including elderly people, people with disabilities, children, and families, can live comfortably and safely in peace, as well as through town development utilizing charms and characteristics derived from the nature, history, and the culture of each area.

(Runway expansion project for Fukuoka Airport)

emote island airlines

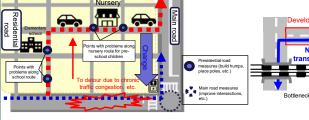
Remote island airline

■ Maintain and provide sea/air routes at remote islands



3-3: Develop safe moving/living spaces

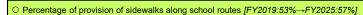
■ Provide safe walking space for children ■ Promote comprehensive railroad crossing measures



Promote installation of platform gates



- Develop bicycle passing space
- Ensure safety of marine transportation and airports



- O Number of tracks with platform gates[(entire railway station) FY2019:1,953—FY2025:3,000, etc.]
- O Number of railway crossing accidents [FY2025: reduced by approx. 10% (compared to FY2020)

3-4: Promote barrier-free access/universal design

Promote barrier-free access to public facilities, etc.







More open mind-set towards accessibility

○ Percentage of public facilities with universal design [Number of local public bodies that created policies to promote smooth transportation FY2020:8→FY2025: approx. 350, etc.]

3-2: Develop foundations to promote new population flows and interaction among communities

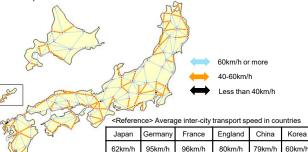
Enhance airport functions

[remote island air route networks]

14 companies, 16 routes (FY 2019)

■ Ensure network of regions/hubs via high standard roads, etc.

Travel speed between cities



■ Development of the projected Shinkansen lines and the Linear Chuo Shinkansen

- Percentage of realization of inter-city quick deliverability via roads [FY2019:57%→FY2025:63%]
- Runway capacity after runway expansion (Fukuoka Airport) [FY2019:176 thousand times/year->FY2024:188 thousand times/year]
- O Percentage of inhabited islands with sea/air routes [both sea and air routes FY2025:100%]

Key objective 4: Develop foundations for virtuous economic cycles



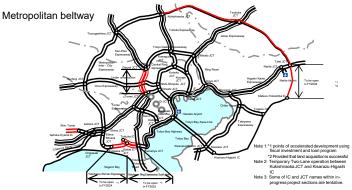
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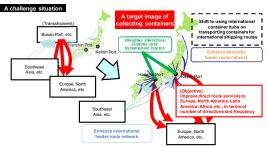
With the aim of realizing sustainable economic growth and building a risk-resistant socioeconomic structure, create virtuous economic cycles by improving social infrastructures that can contribute to increasing the nation's competitiveness, as well as by exporting infrastructure. Revitalize local economies by developing foundations to revitalize tourism, which will support local economies in the post-pandemic era.

4-1: Enhance/optimize overall supply chains

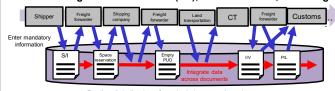
■ Promote development of beltways in three metropolitan areas, etc.



Sustaining and expanding international shipping routes from international container hubs



■ Promote digital transformation (DX), standardization, etc. in logistics



Realize digitalization of port logistics procedures between private business operators with cyber port

- Percentage of provision of beltways in three metropolitan areas [FY2020:83%→FY2025:89%]
- Transport capacity of international main sea routes connected to ports in Japan [(Keihin Port) FY2019:270 thousand TEU/week→FY2023: 270 thousand TEU/week or more, (Hanshin Port) FY2019:100 thousand TEU/week→FY2023:10 thousand TEU/week or more]
- Number of port-related parties that can be connected to cyber port (port logistics)
 IFY2025: approx. 650 parties]

4-2: Develop foundations for revitalizing tourism, etc., which support local economies

 Enhance and extend functions of international airports in three metropolitan areas



More enhancement of functions of Narita International Airport

■ Promote FAST TRAVEL



■ Improve public transportation facilities/services to receive foreign tourists





- O Number of cities international airports in three metropolitan areas provide international flights to/from [CY2019:216 cities→CY2025:226 cities]
- Of seven major airports (Narita, Haneda, Kansai, Chubu, Shin-Chitose, Fukuoka, Naha), number of airports that reduced waiting time for check-in (self service) and security inspection by half, etc. [FY2019:0%→FY2025:100%]
- Percentage of provision of multi-language service in passenger facilities [(Railway stations) FY2020:87%—FY2025:100%, etc.]

- 4-3: Enhance global competitiveness of cities by stimulating private investment
- Develop foundations to increase large cities' international competitiveness



Umekita area

■ Promote diverse PPP/PFIs



Sendai Airport concession project

- Percentage of increased land prices within main areas in cities that are developing foundations for more international competitiveness through International Competitiveness Base City Development Projects (compared to 2012) [FY2019:84.1%—FY2025:100%]
 Scale of PPP/PFI projects [FY2013-FY2018:19.1 trillion yen—FY2022-FY2031:30 trillion yen*]
- *Updated KPI in accordance with the revised PPP/PFI Promotion Action Plan (June 3, 2022)
 - 4-4: Strategically develop Japanese "Quality Infrastructure Systems" overseas
- Promote overseas development of Japanese infrastructure systems



New Ulaanbaatar International Airport

○ Infrastructure-system-related overseas contracts by Japanese companies [(Construction/real estate) CY2018:2.8 trillion yen→CY2025:4 trillion yen, (Mobility/transportation) CY2020:6 trillion yen→CY2025:8 trillion yen]

Key objective 5: Digital transformation (DX) in infrastructure sector



Legend: KPI

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Considering realization of a "new normal," reform infrastructures and public services in order to promote work style reform and productivity improvement. To accomplish this, digitalize and "smartify" the infrastructure development sector through utilization of information technology and social implementation of new technology. At the same time, promote the public understanding of infrastructure, as well as realize a safe, secure, and prosperous lifestyle.

5-1: Reform work style and improve productivity through digitalized/smarter infrastructure development

■ Promote i-Construction, such as utilization of 3D data and ICT construction

O Build MLIT's data platform

(Realize work efficiency, etc. through data integration



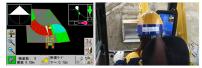
Layer and display various data on the same map

■ Promote elimination of areas that lack flood risk information

Provision of simplified flood risk information based on LP data* on small rivers

O Promote spread and utilization of ICT, etc. in designing and construction

(3-D design data enables automatic control, etc.)



Operator

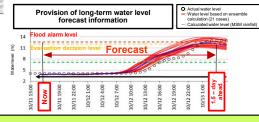


ICT construction machine

 Advanced infrastructure inspection/maintenance with new technology



Advanced disaster forecast/information gathering/recovery with new technology

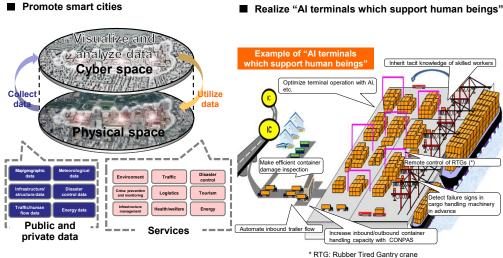


- Number of data sources linked to MLIT's data platform [FY2020 approx. 220 thousand sources—FY2025: approx. 1.5 million sources]
- Percentage of implementation of ICT-driven construction in civil works directly ordered by MLIT [FY2019:79%—FY2025:88%]

* Aerial laser measurement results

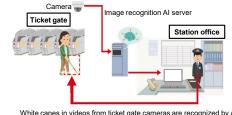
O Number of Class A and B rivers whose information, such as areas likely to be inundated in the event of a flood of the largest scale is acquired and made known [FY2020:2,027—FY2025: approx. 17,000]

5-2: Create new value of infrastructures through social implementation of new technology



■ Provide online filing system for construction business license

National Tax Agency's syste Platform fall prevention measures with new technology



White canes in videos from ticket gate cameras are recognized by AI and the information is sent to station staff. The staff immediately go to the person with disabilities and assist them.

 Promote establishment of road transportation environment that can contribute to autonomous driving technology

- Promote traffic congestion measures with ICT/AI technology
- Number of municipalities/local organizations that have implemented technology for smart cities [FY2020:23→FY2025:100]

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Error message display, etc.

○ Number of ports that have launched "Al terminals which support human beings" [FY2020:0→FY2023:3]

Key objective 6: Decarbonize infrastructure sector. Improve quality of life though multifaceted utilization of infrastructural spaces

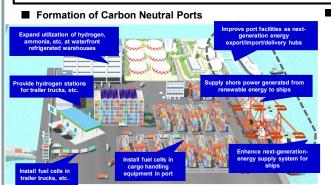


Legend: KPI

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Realize a green society by decarbonizing the infrastructure sector, etc., while improving citizens' quality of life by maximizing infrastructure stock effects through multifaceted/combined use of infrastructural functions/spaces.

6-1: Realize a green society (carbon neutrality in 2050)



 Expand use of local renewable energy that utilize infrastructures, etc. (sewage biomass resources, solar power, etc.)



Solar power

■ Promote development of low-carbon cities

Centralize urban functions
Lower-carbon buildings
Heat Island measures

More efficient urban energy system

Provision of greenhouse gas absorption sources by urban greening, etc.

Maintain sound water circulation

Reduce CO2 emissions from construction equipment



■ Promote green infrastructure



Development of city space that attracts investors and talent (Chiyoda, Tokyo)

Create/preserve/restore seaweed beds, tidal flats, etc.



Hyogo Canal in Kobe Port (Hyogo)

Promote adoption of wooden buildings



7-story completely wooden building (Sendai, Miyagi)

- Greenhouse gas emissions reduction in the sewage sector [FY2017: 2.1 million tons of CO2→FY2025:3.52 million tons of CO2]
- Of municipalities that are registered on Green Infrastructure Public-Private Partnership Platform, number of municipalities that have commercialized their green infrastructure efforts [FY2019:3→FY2025:70]
- Sewage treatment population penetration rate [FY2019:91.7%→FY2026:95%]

* Any changes/additions to numerical indicators in Plan for Global Warming Countermeasures shall be considered to be reflected in this plan, as well.

6-2: Reorganize infrastructural spaces into more people-focused ones

■ Promote creation of "comfortable and walkable" urban areas



Creation of "comfortable and walkable" urban area through

■ Promote infrastructure tourism



Metropolitan Area Outer Underground Discharge Channel (Saitama)

Promote development of attractive areas around ports



Onahama Port Aqua Marine Park (Fukushima)

■ Promote utilization of street space



Kanazawa, Ishikawa

Promote utilization of waterfront space



Dotonbori River (Osaka)

 Make Michi-no-Eki a place where people from all generations can play active roles



Promotion of the 3rd stage plans for Michi-no-Eki
(Annexed child-rearing support facilities, etc.)

**Michi-no-Eki is a roadside rest area for those driving across Japan

- Number of municipalities that have set target areas for more comfortable stays [CY2020:31→FY2025:100]
 Number of infrastructure facilities that implement tours offered on portal sites [FY2020:310→FY2025: 410]
- O Number of intrastructure facilities that implement tours offered on portal sites [FY2020:310—FY2025: 410]
 O Number of municipalities that implemented town-waterfront collaboration efforts in order to create a lively
- waterfront [FY2020:433—FY2025:658]
- Number of registered Minato Oases [FY2019:138→FY2025:170]