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Overview of Carbon Neutrality Policy for Transport Sector in Japan

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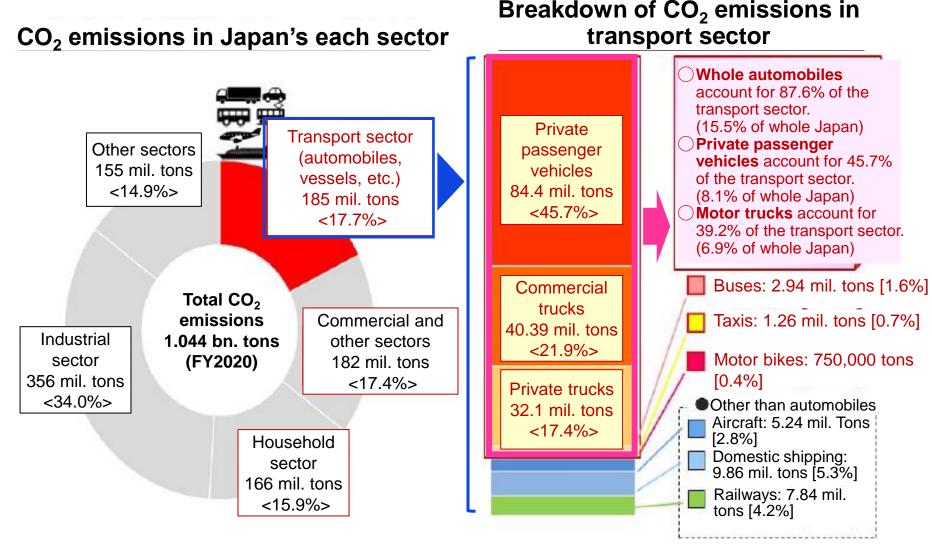
Energy Efficiency Facilitating Hub
THE ENERGY CONSERVATION
CENTER, JAPAN

SE4ALL EEF HUB

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- 1. CO₂ Emissions, Transition and Measures in Japan's Transport Sector
- Main Policies for Reduction of Greenhouse Gas Emissions in Japan's Transport Sector
 - Plan for Global Warming Countermeasures
 - Energy Conservation Act
 - Comprehensive Physical Distribution Policy
 - Act on Advancement of Integration and Streamlining of Distribution
 Business

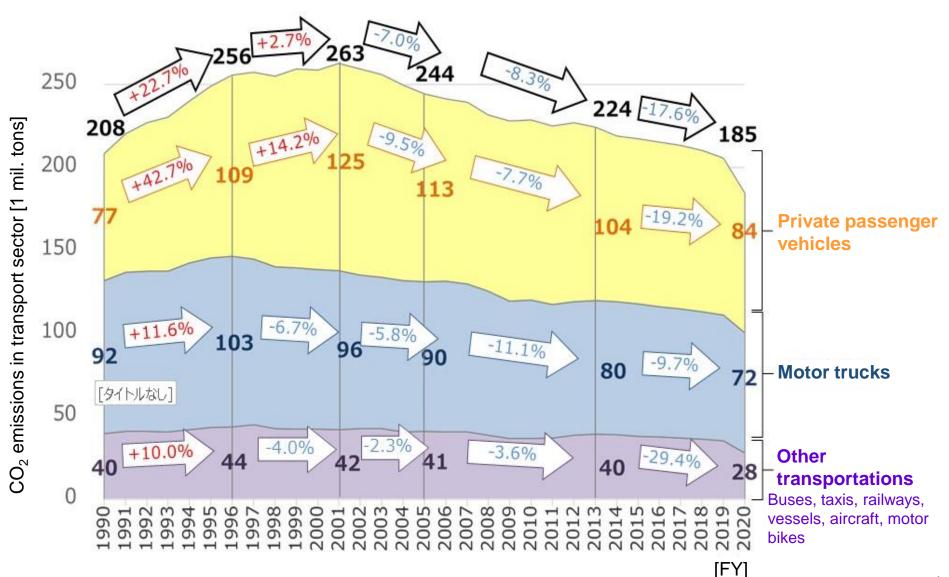
CO₂ Emissions in Japan's Transport Sector



^{*} The sum of numerical values may not be consistent because of fractional processing.

^{*} Prepared by the Ministry of Land, Infrastructure, Transport and Tourism based on Greenhouse Gas Inventory Office "Japan's GHG Emissions Data (FY1990-FY2020), Final Figures".

Transition of CO₂ Emissions in Japan's Transport Sector



Various Measures in Transport Sector

CN/Energy conservation related act

Road traffic flow

- TDM (Transportation Demand Management)
- ITS (Intelligent Transport System)
- Self-driving, traffic lights

- Plan for Global Warming Countermeasures
- Energy Conservation Act
- Comprehensive Physical Distribution Policy, and so on

Individual automobiles

- EV, FCV, PHEV, HV
- Review of top runner program
- Improved infrastructure

Transport business

- Streamlined trucking
- Eco-drive
- Car sharing

Comprehensive streamlining of logistics

- Smart logistics
- Utilization of AI and IoT
- Modal shift

Optimization of overall supply chain

- Cold chain logistics
- Joint transport, warehouse sharing
- Digitalized logistics, standards
- Logistics DX

Public transportations

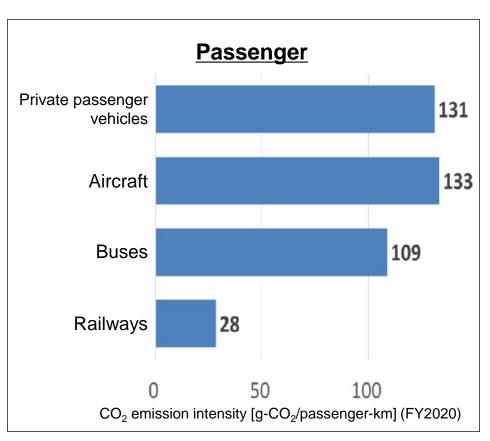
- LRT, BRT, regional transport network
- MaaS
- Promotion of bicycle use

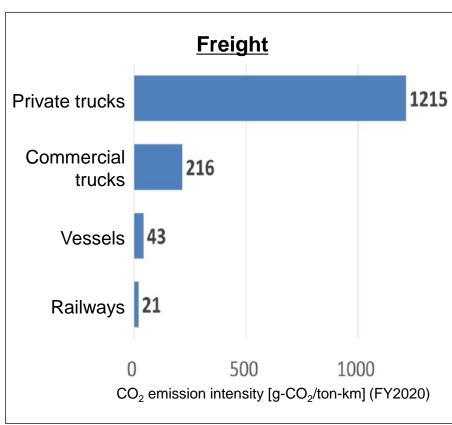
MaaS : Mobility as a Service

Railways, vessels, aircraft

- Light-weight/ advanced railway cars
- LNG fuel vessels, EV vessels
- Mass transport

CO₂ Emissions per Transport Volume





^{*} Prepared by the Ministry of Land, Infrastructure, Transport and Tourism based on Greenhouse Gas Inventory Office

[&]quot;Japan's GHG Emissions Data" and Ministry of Land, Infrastructure, Transport and Tourism "Automobile Transport Statistics",

[&]quot;Air Transport Statistics", "Domestic Shipping Statistics" and "Rail Transport Statistics".

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Main Policies for Reduction of Greenhouse Gas Emissions in Transport Sector

No	Policy/Measure	Overview		
1	Plan for Global Warming Countermeasures	A cabinet decision in 2016 under the Paris Agreement. Describes the GHG emission control and absorption goals, basics for the measures to be taken by the business operators, public, etc., and policies to be conducted by the national and local public entities for achievement of goals.		
2	Act on the Rational Use of Energy (Energy Conservation Act)	Presents the Energy Conservation Guidelines to the business operators as a guide for addressing energy conservation to aim at reducing the energy intensity, etc. by 1% or more on the annual average in a mid-/long-term and have them report their energy usage, etc., if their business scale is above a certain level. In case their approaches are not sufficient, they are given a guidance/advice or an instruction to prepare a rationalization plan. The EC Guidelines describe the items, etc. to be implemented for energy conservation.		
3	Comprehensive Physical Distribution Policy	Formulated by the national government in 1997 in order for the government agencies concerned to comprehensively promote distribution policies in cooperation. Based on the current policy, the Ministry of Land, Infrastructure, Transport and Tourism, in cooperation with the government agencies concerned, positions the related policies, considering the following three viewpoints to be the future target direction of distribution [1] Thorough optimization of the overall supply chain by promotion of logistics DX and logistics standardization (Realization of simple and smooth logistics) [2] Promotion of measures for labor shortage and structural reform of logistics (Realization of worker-friendly logistics) [3] Building of robust and sustainable logistics network (Realization of robust and flexible logistics)		
4	Act on Advancement of Integration and Streamlining of Distribution Business	Certifies a project (distribution business integration and streamlining project) intended for generalization of distribution business (integration of transport, storage, cargo handling and distribution handling) and streamlining (rationalization of transport) and contributing to reduction of environmental burden and labor-saving through cooperation of two or more parties, and provides support for the certified project. [Support measures] [1] Promotion of launching and implementation of project [2] Support for necessary facilities, equipment, etc.		

1. Plan for Global Warming Countermeasures (Transport sector)

- Promotion of voluntary approaches in the industrial circle
 - Steady implementation and evaluation/verification of a low-carbon society execution plan
- Measures for individual automobiles
 - o Spread of next-generation automobiles, improvement of fuel efficiency, etc.
- Measures for road traffic flow
 - Measures for road traffic flow (improvement of LED-based road lighting, promotion of the Intelligent Transport System (ITS) (centralized control of traffic lights), improvement of traffic safety facilities (improvement/profiling (hybridization) of traffic lights, promotion of LED-based traffic lights), and promotion of self-driving
- Shift to a decarbonized lifestyle
- Green automobile transport business, etc. by promotion of using environmentally friendly automobiles
- Promotion of utilizing public transportations and bicycles
- Measures for railways, vessels and aircraft
 - o Decarbonization of the railway, shipping and aviation sectors
- Promotion of decarbonized logistics
 - Promotion of streamlined trucking and joint transport/delivery
 - o Promotion of modal shift to marine transport and rail freight transport
 - Promotion of decarbonization of logistics facilities
 - Approaches on the port (shorter land transport distance of freight by optimum selection of the port, comprehensive decarbonization at the port)
- Other measures/policies
 - Utilization of the special structural reform zone system for the global warming control measures
- Promotion of sector coupling of electricity, heat and move

Revision of "Plan for Global Warming Countermeasures"

Comprehensive governmental plan based on the Law Concerning the Promotion of Measures to Cope with Global Warming

The plan has been revised in order to realize the declaration of "2050 carbon neutrality", 46% reduction goal by FY2030*, and so on.

* Japan's mid-term goal aims at reducing greenhouse gases 46% from the FY2013 level by FY2030, further addressing 50% reduction.

GHG emissions and absorptions (Unit: 100 mil. ton-CO ₂)			2013 emission result	2030 emissions	Reduction rate	Conventional goal
		•	14.08	7.60	▲ 46%	▲ 26%
CO ₂ from energy use		n energy use	12.35	6.77	▲ 45%	▲25%
	By sector	Industry	4.63	2.89	▲38%	▲ 7%
		Commercial and other	2.38	1.16	▲ 51%	▲40%
		Household	2.08	0.70	▲ 66%	▲39%
		Transport	2.24	1.46	▲35%	▲27%
		Energy transition	1.06	0.56	▲ 47%	▲27%
CO ₂ , methane and N ₂ O not from energy use		ergy use	1.34	1.15	▲1 4%	▲8%
4 gases such as HFC (fluorocarbons)			0.39	0.22	▲ 44%	▲25%
Absorption source Joint Crediting		on source	-	▲0.48	1	(▲37 mil. ton-CO ₂)
		•	Through public-private partner about 100 mil. ton-CO ₂ in term counts the acquired credits ap	-		

Main Measures and Policies in "Plan for Global Warming Countermeasures"

Renewable energy and energy conservation

- A municipality sets a promotion area based on the Revised Law Concerning the Promotion of Measures to Cope with Global Warming.
 - → Expansion of renewable energy benefiting a region (solar power energy, etc.)
- Expansion of obligations conforming to the EE&C standards for housings and buildings

Industry and transport, etc.

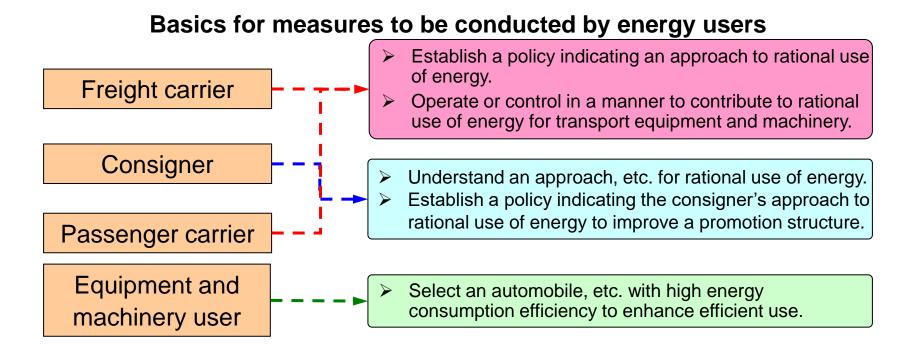
- Innovation support toward 2050
 - → Support of research and development and social implementation of priority fields such as hydrogen and storage batteries by a ¥2-trillion fund
- Support of research and development and demonstration for 30% or more energy conservation in data center

Inter-sector approaches

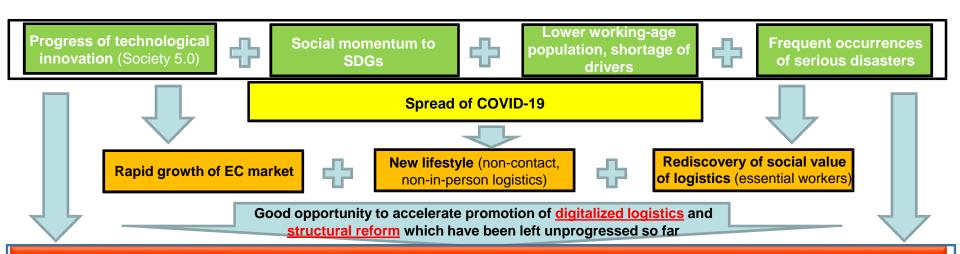
- Creation of 100 or more "advance decarbonization regions" by FY2030 (Regional decarbonization roadmap)
- Emission reduction in developing countries, etc. by utilizing excellent decarbonization technology, etc.
 - → Contribution to global-scale reduction by the Joint Crediting Mechanism (JCM)

2. Act on the Rational Use of Energy (Energy Conservation Act)

- ◆ The Act presents the Energy Conservation Guidelines to the business operators as a guide for addressing energy conservation to reduce energy intensity, etc. by 1% or more on the annual average in a mid-/long-term.
- ◆ The Act requires business operators to report their energy usage, etc., and they are given a guidance/advice or an instruction to prepare a rationalization plan if their approaches are not sufficient.
- **♦** The EC Guidelines describe the items, etc. to be implemented for energy conservation.



3. Overview of Comprehensive Physical Distribution Policy (FY2021 to FY2025)

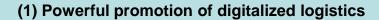


Issues confronted by Japan's logistics radicalized and clarified in combination with drastic social change by spread of COVID-19

- 1. Thorough optimization of overall supply chain by promotion of logistics DX and logistics standardization (Simple and smooth logistics)
- (1) Powerful promotion of digitalized logistics
- (2) Promotion of approaches to automation/mechanization contributive to labor shortage and non-contact/non-in-person logistics, support of introduction of robots, etc. into logistics facilities such as warehouses
- (3) Acceleration of approaches to logistics standardization
- (4) Physical and commercial distribution data infrastructure, etc.
- (5) Training and securement of advanced human resources for logistics
- 3. Building of robust and sustainable logistics network (Robust and flexible logistics)

- 2. Promotion of measures for labor shortage and structural reform of logistics (Realization of worker-friendly logistics)
- (1) Improvement of work environment required for complying with upper-limit regulations for overtime work of truck drivers
- (2) Promotion of approaches to secured stable transport of domestic shipping
- (3) Promotion of innovative approaches to improvement of labor productivity
- (4) Rationalization of distribution of agricultural, forestry and fishery products, and food, etc.
- (5) Secured sustainability of last-one-mile delivery in depopulated areas
- (6) Measures for securing new manpower
- (7) Enhancement of public relations for logistics
- (1) Building of robust and sustainable logistics network capable of functioning in cases of emergencies such as infectious diseases and large-scale disasters
- (2) Building of logistics network contributive to international competitiveness and sustainable growth of Japan's industry
- (3) Building of logistics network for securing sustainability of global environment (Realization of carbon neutrality, and so on)

1. Thorough Optimization of Overall Supply Chain by Promotion of Logistics DX and Logistics Standardization (Simple and Smooth Logistics)



Thorough computerization of procedural documents, higher productivity of port logistics by promotion of cyberport, improvement of data infrastructure, expedited procedures for passage of special vehicles, promotion of roll call using ICT, and so on

■ Promotion of roll call using ICT

Currently in person

Operation manager

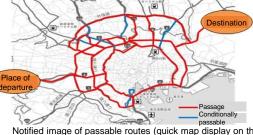
call

Use of

Remote

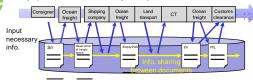
roll call

Automatic roll call Robot, etc ■ Expedited procedures for passage of special vehicles (*)



Notified image of passable routes (quick map display on the web)

- (*) Expedited procedures by a new traffic system allowing special vehicles to pass through the passable routes immediately confirmed on the web
- Higher productivity of port logistics by promotion of cyberport



Computerize port logistics procedures between private business operators.

<Major KPIs (Key Performance Indicator)>

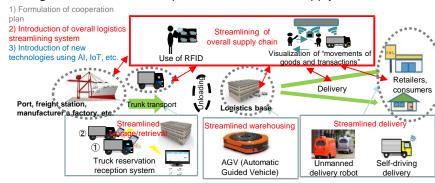
Roll call support device

! Number of port personnel connectable to the cyberport (port logistics) [About 650 (FY2025)]

(2) Promotion of approaches to automation/mechanization contributive to labor shortage and non-contact/non-face-to-face logistics

Support of introduction of robots, etc. into logistics facilities such as warehouses, promotion of approaches to realization of vehicle platooning and self-driving, and so on

■ Digitalization in view of optimization of overall supply chain



■ Automation/mechanization at logistics facilities such as warehouses



■ Truck platooning/automation



Suriace

<Major KPIs>

Number of certified cases of comprehensive streamlining plans based on the Act on Advancement of Integration and Streamlining of Distribution (Integration of transport networks, etc.) [141 cases (FY2020) → 330 cases (FY2025)]

- <Major KPIs> (1: Thorough optimization of overall supply chain by promotion of logistics DX and logistics standardization (simple and smooth logistics)
- Ratio of logistics companies launching approaches to automation/mechanization and digitalization of logistics operations [100% (FY2025)]
- Ratio of logistics companies* realizing logistics DX by automation/mechanization and digitalization of logistics operations [70% (FY2025)]
- (* Refer to business operators obtaining quantitative effects of improvement of conventional operations, reform of work style, etc. by automation/mechanization and digitalization of logistics operations.)
- Ratio of logistics companies addressing automation/mechanization and digitalization of logistics operations in cooperation with consigners [50% (FY2025)]

1. Thorough Optimization of Overall Supply Chain by Promotion of Logistics DX and Logistics Standardization (Simple and Smooth Logistics)

(3) Acceleration of approaches to logistics standardization

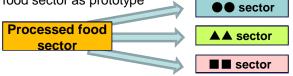
Improvement of standardization promotion structure in processed food sector, rollout to similar sectors, promotion of logistics standardization for each type of business, and so on

■ Promotion of standardization of goods, data, operation processes, etc.





■ Promotion of standardization for each type of business, taking processed food sector as prototype



:Major KP>

Number of formulated action plans, guidelines, etc. on logistics standardization for each type of business [3 cases (FY2021 to FY2025)]

(5) Training and securement of advanced human resources for logistics

Clarification/notification of skills required for human resources promoting logistics DX, provision of learning opportunities, and so on

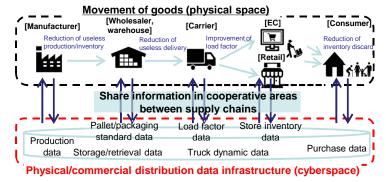
<Maior KPIs:

Number of endowed chairs by academic-industrial alliance dealing with logistics/supply chain management, offered at universities and graduate schools [50 courses (FY2021 to FY2025)]

(4) Building of physical and commercial distribution data infrastructure

Promotion of building and social implementation of physical and commercial distribution data infrastructure, promotion of logistics MaaS, and so on

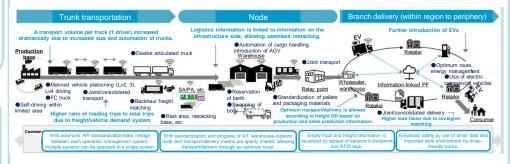
■ Promotion of building and social implementation of physical and commercial distribution data infrastructure (*1)



(*1) Refers to the "physical/commercial distribution data infrastructure" to be built in SIP "Smart Logistics Service" project (to be implemented in the 2nd term of the Cabinet Office Strategic Innovation Promotion Program (SIP)).

■ Promotion of logistics MaaS (*2)

(*2) New mobility service in the logistics sector, which links truck vehicle data of multiple commercial vehicle manufacturers through a common mechanism to use them for the issues to be addressed in cooperation.



<Major KPIs>

Number of social implementation cases of business models using the physical and commercial distribution data infrastructure [3 cases (FY2021 to FY2025)]

2. Promotion of Measures for Labor Shortage and Structural Reform of Logistics (Worker-friendly Logistics)

(1) Improvement of work environment required for complying with upper-limit regulations for overtime work of truck drivers

Review of business practices, dissemination of standard freightage, reduction of freight wait time, support of using double articulated trucks, and so on

■ Promotion of reform of work style of truck drivers

<u>Dissemination of revised Motor Truck</u> <u>Transportation Business Act</u>

[Overview of revisions]

- 1. Optimization of regulations
- 2. Clarification of matters to be observed by business operators
- 3. Enhancement of measures for consigners
- 4. Introduction of standard freightage notification system
- → Promote infiltration of standard freightage, improve the working conditions of the drivers (wages, work hours, etc.) to realize a sustainable business environment.
- → Ask for understanding that the consigner's consideration is important to ensure compliance.

Rollout of national movement



→ Call on the consigners and the general public to streamline transport as a national movement.

■ Support of using double articulated trucks, etc.

One double articulated truck transports 2 regular trucks' worth of freight



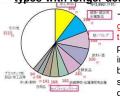
Vehicle length in Special Vehicle Licensing Standards was eased. (After Jan. 2019) (Eased from 21 m to 25 m at maximum)

Revisions of "Standard Motor Truck Transportation Agreement"



→ Distinguish freightage from charges clearly, regulate "hourly wait rates", etc. as charges, and clarify the details of incidental work.

Review of business practices for freight types with longer detention time



→ Prepare a guideline by transport item and promote improvement of business practices such as extension of lead time.

■ Reduction of detention time by using digital devices, etc.

Truck driver reserves an arrival time.

Truck arrival time is leveled, reducing a detention time.





<Truck reservation receiving system>

<Major KPIs>

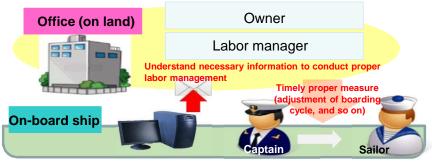
Goals for truck driver's (1) annual average income and (2) average work hours [Raise the (1) annual average income to the average of all industries and lower the (2) average work hours to the average of all industries.]

(2) Promotion of approaches to secured stable transport of domestic shipping

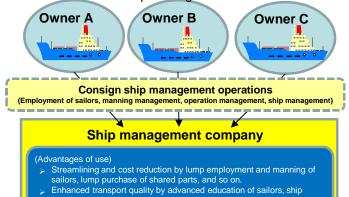
Securement and training of sailors, promotion of work style reform, streamlined operation and management of domestic shipping, and so on

Review of sailor's labor management structure

<Picture of labor management scheme for new sailors>



■ Establishment of registration system for ship management business <a href="https://example.com/Picture-of-ship management-ship management-s



<Major KPIs>

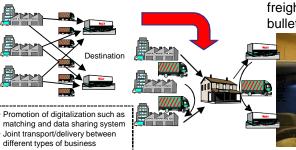
Hourly transport volume per sailor [4,019 ton-km (2018) \rightarrow 4,919 ton-km (2025)]

2. Promotion of Measures for Labor Shortage and Structural Reform of **Logistics (Worker-friendly Logistics)**

(3) Promotion of innovative approaches to improvement of labor productivity

Further rollout of joint transport/delivery, promotion of warehouse sharing. reduction of redelivery, promotion of smooth last-one-mile delivery, and so on

■ Further rollout of joint transport/delivery



■ Consolidated transport of freight and passengers, using bullet trains, etc.



■ Reduction of redelivery

[Approach to delivery demonstration]



Foodstuff, etc.couriers)

Delivery by automatic delivery robot (delivery work

Measures for cargo handling in street

Tangible measures

Off-street joint cargo Stopping lane handling facility (e.g.) (exclusive for freight



Intangible measures

Publicity of cargo handling rules in area (e.g.)



Package drop

service

- Labor productivity of logistics industry [Improve about 20% from FY2018 by FY2025]
- Loading efficiency of truck [37.7% (FY2019) → 50% (FY2025)]

shared by

Redelivery rate of home delivery [About 10% (FY2020) → About 7.5% (FY2025)]

(4) Rationalization of distribution of agricultural, forestry and fishery products, and food, etc.

Improvement of distribution bases such as stock points, promotion of automation, labor-saving, standardization and palletization in wholesale market, and so on

■ Improvement of joint logistics base



■ Automation, labor-saving, standardization, palletization

Remote product management and matching by AI and ICT, automatic transfer by AGV



Streamlining by palletization





■ Building of data linkage system

Secured quality by cold chain



<Maior KPIs>

Number of business operators addressing streamlining of logistics (number of certified cases of comprehensive streamlining plans based on the Act on Advancement of Integration and Streamlining of Distribution or food distribution rationalization plans based on the Food Distribution Act [64 cases (FY2020)] → 200 cases (FY2025)]

2. Promotion of Measures for Labor Shortage and Structural Reform of Logistics (Worker-friendly Logistics)

(5) Ensured sustainability of last-one-mile delivery in depopulated areas

Promotion of consolidated transport of freight and passengers, and joint delivery, social implementation of logistics by drone, and so on

■ Consolidated transport of freight and passengers, using regular buses, community buses, etc.





■ Logistics by drone



Logistics for depopulated area and remote island



■ Self-driving service based at roadside rest facility, etc.





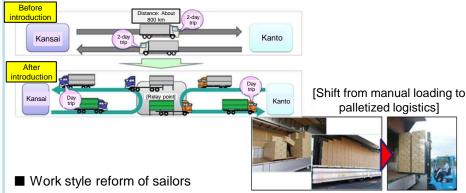
<Major KPIs>

Number of certified cases of comprehensive streamlining plans based on the Act on Advancement of Integration and Streamlining of Distribution (Depopulated area) [14 cases (FY2020) → 100 cases (FY2025)]

(6) Measures for ensuring new manpower

Improvement of work environment allowing various human resources such as females, elders and foreigners to be active, stylization and standardization of operation, and so on

■ Spread of junction transport, promotion of palletized logistics [Realization of day trip service by junction transport]



- Discussion about using foreigners as truck drivers, etc.
- Securement and training of various human resources through stylization and standardization of operation by promotion of logistics DX

<Major KPIs>

Ratio of youngsters engaged in truck driving [Raise the ratio of youngsters (15 to 29 years old) engaged in truck driving to that in all industries (FY2025)]

(7) Enhancement of public relations for logistics

Enhancement of PR activities for raising social common awareness of the reality of logistics risks and the importance of securing sustainable logistics Major KPls

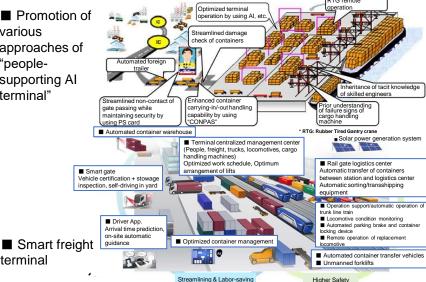
- Ratio of consumers having awareness of the reality and issues of logistics [100% (FY2025)]
- Ratio of consumers practicing "worker-friendly logistics" [80% (FY2025)]

3. Building of Robust and Sustainable Logistics Network (Robust and Flexible Logistics)

(1) Building of robust and sustainable logistics network capable of functioning in cases of emergencies such as infectious diseases and large-scale disasters

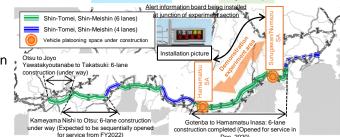
Maintenance of core marine traffic network functions in cases of disasters. promotion of various approaches of "people-supporting AI terminal", improvement of roads eyeing self-driving and vehicle platooning, and so on

Promotion of various approaches of "peoplesupporting AI terminal"



Road improvement in view of selfdriving and vehicle platooning

terminal



Securement of transport safety in each transport mode

<Major KPIs>

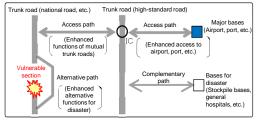
- ! Secured rate of inter-city quick deliverability by road [57% (FY2019) → 63% (FY2025)]
- Disaster resistance enhancement measures for port (anti-earthquake measures) (Of marine traffic networks (about 400) to be secured in case of large-scale earthquake,

ratio of available ones at occurrence of disaster) [33% (2020) \Rightarrow 47% (2025)]

(2) Building of logistics network contributive to enhanced international competitiveness and sustainable growth of Japan's industry

Enhanced road functions in response to larger trucks such as expansion of important logistics roads, promotion of international container strategy port policy, expanded export of agricultural, forestry and fishery products and food, support of overseas expansion of logistics companies, and so on

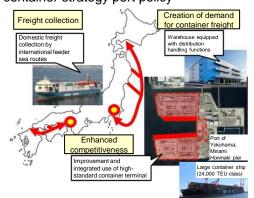
■ Important logistics road network



Expanded export of agricultural, forestry and fishery products and food



Promotion of international container strategy port policy



Picture of improved export environment

- Support of overseas expansion of logistics companies
 - Spread of international standards based on Japanese-style cold chain logistics service
- · Approaches to improvement of regulations, infrastructure, etc.
- Use of public and private funds



Maintenance and increase of international trunk sea routes

<Major KPIs>

Secured transport capacity of international trunk sea routes calling Japan's ports

[Ports in Keihin area: Weekly 270,000 TEU (Europe: Weekly 2 services; North America: Daily port call; Middle and South America, Africa, Oceania:

Ports in Hanshin area: Weekly 100,000 TEU (Europe: Weekly 1 service; North America: Daily port call; Africa, Oceania: 2 regions, weekly 5

→ Ports in Keihin area: Weekly 270,000 TEU or more (Europe: Weekly 2 services; North America: Daily port call; Middle and South America, Africa, Oceania: 3 regions, weekly 12 services) Ports in Hanshin area: Weekly 100,000 TEU or more (Europe: Weekly 1 service; North America: Daily port call; Africa, Oceania: 2 regions, weekly 5

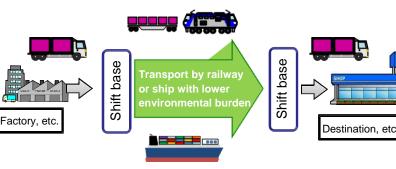
Total floor area of overseas warehouses of Japan's logistics companies in Asia [27% higher than the FY2020 level by FY2025]

3. Building of Robust and Sustainable Logistics Network (Robust and Flexible Logistics)

(3) Building of logistics network for securing sustainability of global environment

Further promotion of modal shift, streamlined logistics in cooperation with consigners, promotion of low carbonization and decarbonization in each transport mode, and so on

■ Further promotion of modal shift



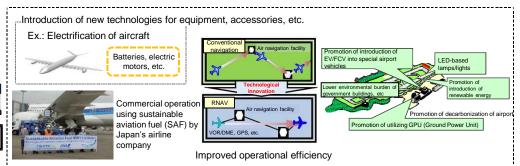
Hydrogen

fuel ship

Ammonia

fuel ship

Decarbonization in aviation sector



Promotion of spreading nextgeneration vehicles, etc. ■ Early realization of commercial operation of zero-emission ships

Promotion of low carbonization of warehouse

Ultra-high-efficiency LNG

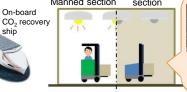
+ wind propulsion ship

Shift to energy-saving natural refrigerant equipment in freezer and refrigerated warehouse



Reduced energy consumption of lighting and air conditioning along with labor-saving of warehousing work and energy supply by renewable energy

Labor-saving Manned section section





without lighting

■ Formation of carbon-neutral port



Picture of forming carbon-neutral port (CNP)

<Maior KPIs>

FCV truck

- i Energy conservation improvement rate of the carriers above a certain scale of transport capacity [Every fiscal year, annual average improvement rate of most recent 5 years minus 1%] i. Indicators on modal shift
 - (1) Freight transport ton-km by railway [18.4 bn. ton-km (FY2019) → 20.9 bn. ton-km (FY2025)] (2) Freight transport ton-km by shipping [35.8 bn. ton-km (FY2019) → 38.9 bn. ton-km (FY2025)]

(Reference) Logistics DX

Logistics DX _

To reform the conventional concept of logistics through mechanization and digitalization

Raise the superiority of logistics over other industries by logistics DX and enhance the international competitiveness of Japan's industry.

- ◆ Improve existing operation and reform the work style.
- ◆ Innovate the business model of the logistics industry itself through standardization of the logistics system, etc.

Visualize information, cost, etc., and simplify and steady work processes through mechanization and digitalization of the overall supply chain.

Mechanization of logistics sector (Examples of major approaches)

Automation and mechanization of trunk transport





Truck platooning/ Automated ship automation

Streamlined lastone-mile delivery



Drone delivery

Digitalization of logistics (Examples of major approaches)

- Streamlined operations by computerized procedures (computerized waybills and their reception, expedited passage procedures for special vehicles, and so on)
- Streamlined operations by digitalized roll call and dispatch control
- Maximized use of logistics resources by means of a matching system between freight and trucks, and warehouses



Mutually linked

Automation and mechanization of warehousing work







Automated delivery robots

- Shorter detention time by introducing a **truck reservation** system
- Building of SIP logistics (physical and commercial distribution data infrastructure) and cyberport to accumulate, share and use various data on the supply chain, thereby streamlining logistics
- Streamlined operation by using Al (Various approaches of "people-supporting AI terminal" and support of Al-based delivery operations, and so on)

Automatic creation of delivery route by using Al



Promote logistics

Standardization of software (slip data, etc.)

Standardization in

Standardization of operational processes

Standardization of hardware (exterior, pallets, etc.)



4. Act on Advancement of Integration and Streamlining of Distribution Business

Purpose

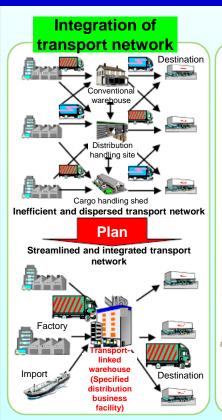
- Enhanced international competitiveness of Japan's industry
- Response to small and frequent freight transport along with advanced and diversified consumer's demand
- Lower environmental load
- Secured manpower required for distribution business

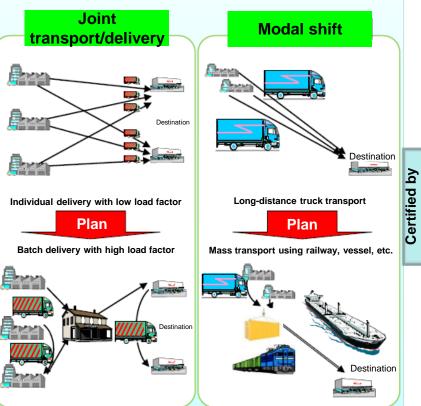
Overview of system

Certifies a project intended for generalization of distribution business (integration of transport, storage, cargo handling and distribution handling) and streamlining (rationalization of transport) and contributing to reduction of environmental load and labor-saving through cooperation of two or more parties (distribution business integration and streamlining project), and provides support for the certified project.

minister

Examples of distribution business integration and streamlining projects to be supported





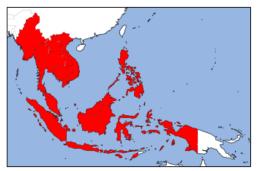
Support measures

- 1. Support of launching and implementation of project
- Subsidy for planning and operational expenses
- Deemed licenses for warehousing business, motor truck transport business, etc. upon starting the project
- 2. Support for necessary facilities, equipment, etc.
- Special provisions for taxation on transportlinked warehouses
- → Corporate tax: Additional depreciation 8% (5 years)
- → Fixed property tax: Base of taxation 1/2 (5 years), and so on
- Consideration for location regulations for facilities
- → Consideration for development permission of urbanization control area
- 3. Financial support
- Expansion of the limit of the credit insurance system
- Long-term low-interest loan system
- Long-term interest-free loan system (mainly for medium- and small-sized businesses)

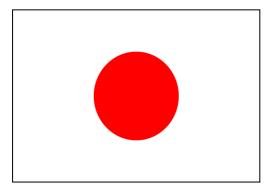


Thank you for your kind attention













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