

NEXCO East Annual Report 2023



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We are connected to communities by connecting communities.

NEXCO East Group is engaged in expressway management, construction, service area operation, and expressway-related businesses in Eastern Japan.

We will continue to grow as a company, contributing to all stakeholders by creating "Interconnectedness" value toward realizing a sustainable society beyond regions, countries, and generations.

NEXCO East Annual Report 2023

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[Editorial Policy of This Report]

The NEXCO East Annual Report is published to inform stakeholders of NEXCO East Group's expressway business and efforts toward the sustainable development of society through the expressway business.

The NEXCO East Annual Report can be downloaded from our corporate website.

<https://www.e-nexco.co.jp/en/csr/download/>



[Scope of Report]

NEXCO East and its 28 group companies.

[Reporting period]

From April 1, 2022, to March 31, 2023
(Some activities outside this period are also included.)

History of NEXCO East Group

NEXCO East, established in October 2005, was created through the division and privatization of the former Japan Highway Public Corporation. Together with its group companies, it is engaged in constructing, managing, and operating expressways and motorways in Eastern Japan. We have been in business for almost 70 years, including the history of Japan Highway Public Corporation. We will continue to contribute to developing the Japanese economy by supporting expressways' safety, security, comfort, and convenience, utilizing our accumulated experience and knowledge.

Economic Contribution (Opening of expressways)

The Kita-Kanto Expressway (entire route) opened.

The smooth transportation between the three prefectures in northern Kanto formed a new major industrial artery.



The Doto Expressway opened between Yubari IC and Shimukappu IC.

This connected Central and East Hokkaido regions by expressway.



The Ken-O Expressway opened between Togane JCT and Kisarazu-Higashi IC.

The network centering on Chiba Prefecture was widened.



The Joban Expressway (entire route) opened.

A double network of the Tohoku Expressway and the Joban Expressway was formed.



The Ken-O Expressway opened between Okegawa-Kitamoto IC and Shiraoka-Shobu IC.

It connected to the Tohoku Expressway to the Tomei Expressway, changing the traffic flow in the Tokyo metropolitan area.



The Tokyo-Gaikan Expressway opened between Misato-Minami IC and Koya JCT.

This marked the completion of approximately 60% of the Tokyo-Gaikan Expressway, connecting four radial roads (Higashi-Kanto Expressway, Joban Expressway, Tohoku Expressway, and Kan-Etsu Expressway).



2005

2008

2009

2011

2013

2014

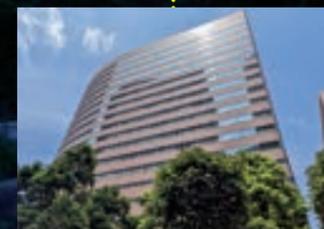
2015

2016

2018

2020

2021



The East Nippon Expressway Company Limited was founded.

NEXCO East, NEXCO Central, and NEXCO West were established under the "Act on Expressway Companies" after the public corporation was split and privatized.

Challenges

"Pasar" was established.

From "a mediocre facility" to "an exceptional facility." "Pasar Makuhari" opened as the first step for NEXCO East's challenges.



Risk Management (Disaster Prevention and Mitigation)

Devastated by the Great East Japan Earthquake

The earthquake damaged 20 routes, totaling approximately 870 km. NEXCO East worked day and night on emergency repair work, completing temporary repairs that allowed emergency vehicles to pass through approximately 20 hours after the earthquake. Then, general traffic was allowed on almost all routes 13 days after the earthquake.



Business Expansion into India

NEXCO East opened its first overseas office in New Delhi to provide NEXCO East's technologies widely in India, serving as a foundation for promoting international businesses.



Creation of a Disaster Prevention Base

Moriya SA (inbound) was opened as a flagship for "making a disaster prevention base in a service area," with not only service area functions but also the role of a disaster prevention base in case of emergency.



Renewal of Road Control Center, Kanto Regional Head Office

The road control center was renovated to the highest seismic standard.



Formulation of the Basic Plan for Life Extension of Infrastructure

The Liaison Conference of Relevant Ministries and Agencies for the Promotion of Measures to Cope with Aging Infrastructure put forward the "Basic Plan for Longevity Extension of Infrastructure" in 2014. Based on this plan, we identified the direction of medium- to long-term initiatives to steadily promote the renewal of expressways under our management.



Launch of the Comprehensive Technology Center

The Comprehensive Technology Center was opened to provide hands-on, experiential training that complements field experience.



Introducing SMH

The first phase of the "SMH* Project" was launched, aiming for the best match of engineers and ICT (Information and Communication Technology).

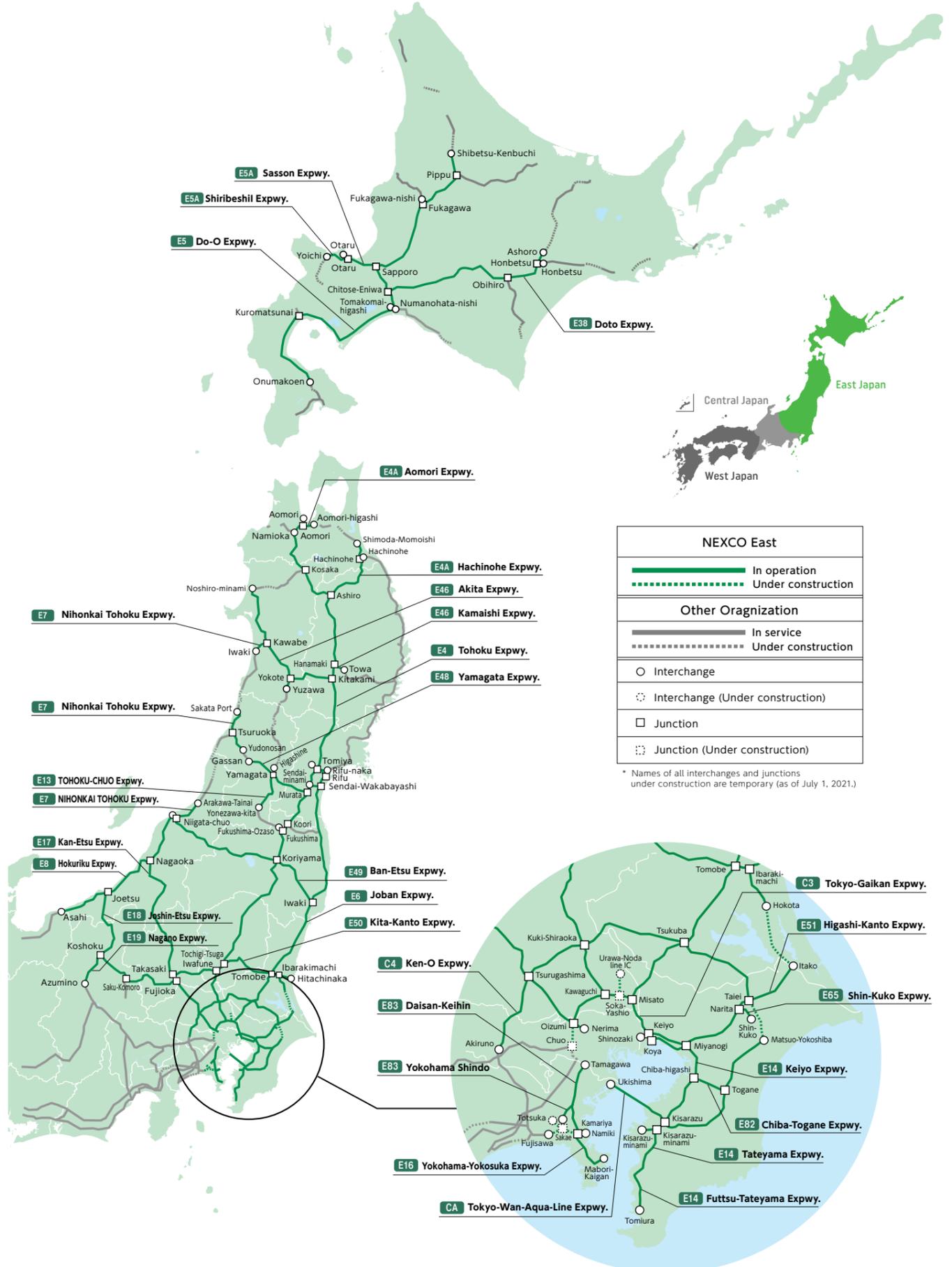
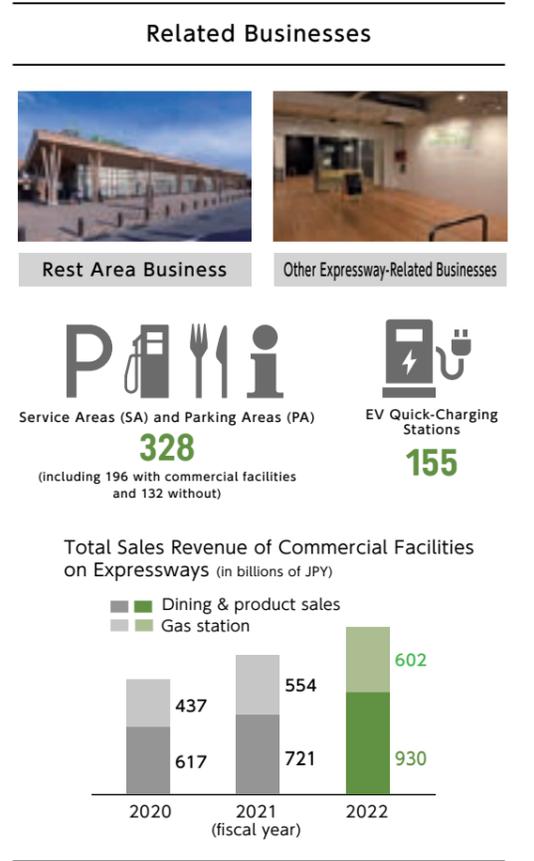


*Abbreviation of Smart Maintenance Highway



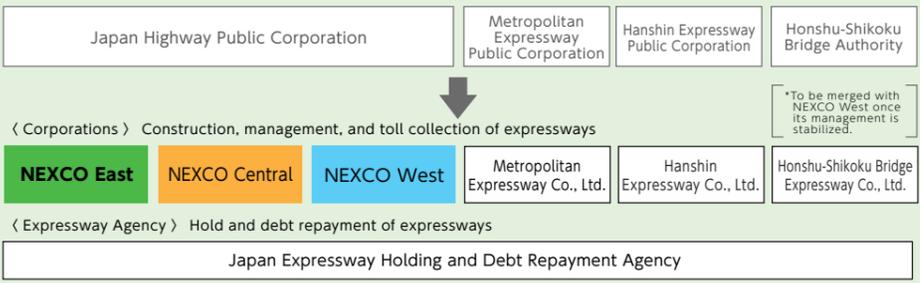
Launch of "moVision"

The "moVision" project, consisting of 31 items, was launched as a "Priority Project" to achieve the "vision of next-generation expressways that accelerate the realization of an autonomous driving society."



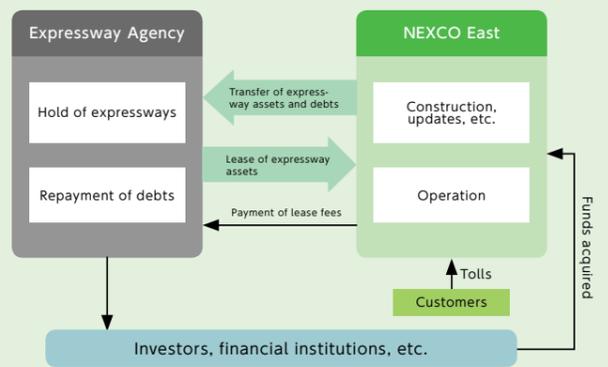
Framework for Expressway Business Operations

Founded in 1956, the Japan Highway Public Corporation was privatized along with other highway-related public corporations. Six expressway companies and Japan Expressway Holding and Debt Repayment Agency (hereinafter referred to as "Expressway Agency") were established on October 1, 2005.



NEXCO East constructs and renovates expressways in the eastern Japan region before handing over the assets and debts acquired for the construction to the Expressway Agency. We also pay lease fees for expressway assets (hereinafter referred to as "lease fees") to the Expressway Agency by operating the leased assets.

The law stipulates that highway tolls shall not include any profits. Income from tolls is used to pay lease fees, expressway maintenance and administrative costs, and the costs of providing various services. The Expressway Agency uses lease fees funds to repay debts.



Moving Forward to Sustainable Expressways for the Future



Fumihiko Yuki

President and Chief Executive Officer
East Nippon Expressway Company Limited

Maiko Shiozaki

CEO, Fairtrade Label Japan (authorized NPO)
Manager, Owls Consulting Group, Inc.

Medium-term management plan to be revised in response to social demands for sustainability

— How do you perceive the current changes in the business environment surrounding your company?

Yuki : We have a five-year medium-term management plan starting in FY2021, defined as “a time to contribute to achieving the SDGs and transform toward a new future society.”

The two years since FY2020 coincided with the Covid-19 pandemic. As a result, traffic volume declined, and the number of customers using our service areas (SA) dropped dramatically, causing a financial deficit.

In FY2022, traffic volume recovered to the pre-pandemic level, and we achieved a surplus. I feel that we have finally overcome the impact of Covid-19 and can now focus on the post-Covid.

This year marks the halfway point of our medium-term management plan. The plan mentions a mid-year review, and we hope to review it in this fiscal

The business environment surrounding the NEXCO East Group is changing dramatically. While post-Covid-19 helped demand for travel recover, social demands to become carbon neutral have increased along with the problems of a declining and aging population.

Under such circumstances, the law was amended to extend the tolling period for expressways up to 2115. Our president, Fumihiko Yuki, spoke about how expressways should be in the future with Maiko Shiozaki, an expert in sustainability management and the CEO of Fairtrade Label Japan, an authorized non-profit organization.

year based on the current business environment. There are three reasons.

First, the Act on Special Measures Concerning Road Construction and Improvement has been revised. It stipulated that the expressways would be free of charge by 2065, but it can now be extended to 2115.

I believe it is significant that the law stipulates that current expressway services can be provided up to 2115. Our company will respond to this request.

Second, social demands for measures regarding sustainability issues, such as climate change and the declining and aging population, have increased substantially.

The Cabinet Office Ordinance on Disclosure of Corporate Affairs, etc., revised by the Financial Services Agency, requires listed companies to disclose information on their sustainability initiatives to stakeholders.

Although we are unlisted, we issue publicly offered bonds. Therefore, we disclose information in our annual securities report like listed companies.

Third, new needs on the demand side are emerging as we enter the post-pandemic era. One of them is the “2024 Problem in Logistics,” saying that there will be a shortage of drivers in the logistics industry.

They also include measures for autonomous driving and the shift to electric vehicles (so-called “EV Shift”). We must respond to new needs and needs, including GX (Green Transformation) and data utilization.

Shiozaki : What impressed me in your talk is that your company has incorporated SDGs into the medium-term management plan rather than into a sustainability strategy.

The domains of sustainability have changed enormously in the past few years. One of them is the change in consumers. I have been promoting awareness of fair trade products to consumers. Their awareness of the SDGs exceeds 90%, and their

expectations toward companies are rising.

Human rights issues need to be addressed as well. The trend to reduce long working hours in the logistics industry is also linked to the international movement for human rights considerations.

I would like to ask you about your sense of urgency regarding climate change. Your company has a vast network of highways and land, and I believe the scale of damage from weather and other disasters is large. Also, I would like to know how your company is affected by a society with a declining population.

Yuki : It makes sense that 90% of consumers are aware of the SDGs. I think it’s an indication that social demands for sustainability are growing.

Above all, the direct impact of climate change is natural disasters. In particular, wind and flood damage is becoming more and more severe. We are also seeing an increase in “linear precipitation zone.” The same goes for snow.

As for wind and flood damage, the risk of landslides is increasing. Although expressways are designed to deal with rainfall, rainwater can flow in from outside the expressways.

Not only expressways but the entire region must respond to such changes. The cost of early recovery and durability against disasters has become very high.

Precipitation amounts often greatly exceed forecasts, so we feel there is room to reconsider our road closure criteria.

Regarding the declining population, securing a workforce is becoming increasingly difficult. The entire industry is struggling with a labor shortage and securing human resources. We must seriously consider securing professionals to continue providing expressway services since those issues cannot be solved immediately.

Shiozaki : There is a change in that the younger generation is beginning to have a mindset to

Moving Forward to Sustainable Expressways for the Future



address social issues when selecting products and services and in their job hunting. I think that working on sustainability can have a certain effect on recruitment. In addition to the SDGs, awareness of fair trade is highest among young people, such as teenagers, compared to other age groups.

“Expressways to the Future” with Future-Oriented CSR

— Considering changes in the business environment, what are your plans?

Yuki : Our mission is to continue to provide expressway services based on changes in the world. The extension of the toll collection period mentioned earlier, as one of the changes in the business environment, is an excellent opportunity for us to reaffirm what sustainability means to us.

As for future-oriented measures such as autonomous driving and EV Shift, we will establish bases for self-driving vehicles and install fast

charging stations. In addition, I think it is necessary to upgrade the functions of SAs/PAs by increasing the number of parking spaces and providing spots for double-trailers.

While responding to these new changes is essential, "measures for deteriorating structures" are also an urgent issue for maintaining expressways. The oldest expressways have been in operation for more than 50 years. The road surface is salted to prevent freezing in snowy and cold regions, which makes the steel bars of bridges rust. Changes in logistics have led to more heavy vehicles driving on the roads, also causing severe damage to the roads. Renewal works must be done appropriately to address these issues. Since renewal works cause inconvenience to customers due to traffic restrictions, we need to be more accountable than ever before by explaining the need for these works.

Measures to relieve traffic congestion are also necessary. In rural areas, there are many provisional two-lane sections (two-lane traffic expressways). In addition to traffic safety issues, provisional two-lane sections must be closed to traffic to deal with accidents and disasters. We hope to resolve this situation as soon as possible to strengthen our ability to respond to disasters.

We will also change our company's internal way of thinking. We initiate CSR activities based on the key phrase, "Connected to communities by connecting communities." We want to incorporate future-oriented elements in this phrase.

We cannot protect expressways for the next 100 years unless everyone thinks sustainable, including our company and group companies, suppliers, employees, and their families.

Shiozaki : I believe incorporating a future orientation is the key to embodying sustainability. In this regard, consumer materials' keyword in the industrial world is their life cycle extensions and continuous use.

Also, it would be a good idea to explain to the users how the impacts of climate change, such as the drastic increase in wind and flood damages are related to the measures for aging structures.

Expressways to Reduce Greenhouse Gas Emissions

— How do you intend to promote decarbonized management?

Yuki : We are working on the "Environmental Action Guidelines" revised in January 2021, aiming to achieve zero carbon dioxide emissions by 2050 in order to achieve carbon neutrality. In addition, we established an action plan this March to reduce greenhouse gas emissions in our offices by 50% or more by FY2030. During this fiscal year, we will formulate and implement a greenhouse gas reduction plan for the entire expressway business.

Since cars emit less carbon dioxide if they run at a certain speed, the carbon dioxide reduction should be more effective if expressways are used more than public roads.

Connecting places by expressways and adding more lanes to relieve traffic congestion can further reduce carbon dioxide emissions.

Expressway toll booths used to be crowded, but the widespread use of ETC has dramatically reduced this congestion. We believe it is essential to firmly demonstrate that our efforts significantly contribute to reducing carbon dioxide emissions.

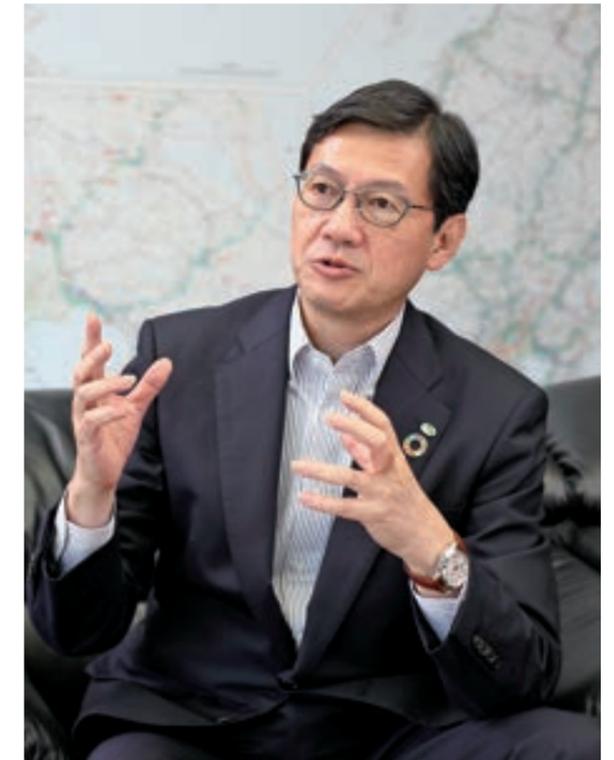
Some estimate that the Ken-O Expressway (Metropolitan Inter-City Expressway) will reduce carbon dioxide emissions by 390,000 tons annually.

Of course, a new expressway can result in new demands because cars that weren't there before will run on the new expressway. How to assess such factors is a complex issue.

Shiozaki : Assessment of those factors seems to be a unique challenge for your business type. Creating a plan and disclosing information is a prerequisite to receiving a sustainability rating.

Japanese companies prefer to disclose information only after they have a clean set of numbers. Still, it is crucial first to reveal what is currently being done and what is not being done in an easy-to-understand manner.

It is also important to cooperate and discuss



within the industry "how to unify disclosure rules" and "how to efficiently collect information from business partners."

In the area of climate change, the focus was on "mitigation" measures to reduce carbon dioxide emissions. However, recently, the concepts of "adaptation to climate change" and "response to losses and damages caused by climate change" have been gaining attention. These ideas refer to infrastructure development to adapt to weather changes caused by climate change and recovery response for damage caused by weather disasters.

These also address that disasters are becoming more severe, and the cost of maintaining expressways is increasing. I think it is also important to disclose these efforts.

Yuki : Efforts for "adaptation to climate change" and "response to losses and damages caused by climate change" are viewpoint we have never focused on, so we would like to consider them in the future.

In the reconstruction of our operation offices, we

Moving Forward to Sustainable Expressways for the Future

are converting a building to a ZEB (an acronym for Net Zero Energy Building), incorporating a solar power generator and energy-saving equipment, and we are also working on some measures such as not having office space on the first floor in case of flooding.

Creating an open organizational culture through horizontal, vertical, and diagonal relationships

— The "human resources development" is a significant challenge for any company considering sustainability. What are your thoughts on human resources development?

Yuki : We are working to formulate a human resources development plan, including securing human resources, by the end of this fiscal year. We hear young people are "worried because they do not know what is expected of them." We consider clarification of career paths for young people as one of the pillars of our human resources development plan.

Until now, human resources development has been considered a "cost." However, human capital is now emphasized, and we think it is an "investment" for the future.

As I mentioned before, many young people feel anxious about the future. We value "natural intelligence" rather than artificial intelligence (AI). In other words, we believe that human living and motivated intelligence is essential, which is the foundation of our business. We will clearly demonstrate this.

Another pillar of our human resources development plan is our policy for women. We will maintain a 100% rate of female employees taking childcare leave and encourage male employees to do the same. In addition, we will create a workplace environment where women can take an active role by promoting childcare leave and giving appropriate consideration for relocating them until their child turns three years old.



Shiozaki : Creating an organization that reflects women's voices is essential, and I hope you will move forward in that area. What is critical in addressing the issue from a gender perspective is to simultaneously promote institutional improvement and awareness raising.

In a global survey of attitudes toward gender equality, Japanese youth are below the worldwide average in their belief that "they can change the world." I feel that the weakness of human resources development lies in the fact that we cannot fully depict how to change society and the steps to achieving it.

In this sense, it is vital to clarify career paths, which I believe will lead to self-directed work styles. Promoting both genders and the younger generation is directly related to diversity.

Yuki : I feel that we must think carefully about "what equity (fairness) means" in an organization. We are developing health measures and work style reforms, such as teleworking, but we want to put forth effective measures over a medium-term of five to ten years so they will not be a makeshift.

What is essential is to create an environment where every employee can work with a sense of fulfillment and appreciation of well-being, and an open organizational culture is what makes this environment.

Such an organizational culture increases individual productivity. A good cycle is created where each individual's full potential can lead to the organization's overall development, positively impacting the individual.

Then, how do we create an open organizational culture? Educating managers is indispensable, so we provide them with training on how to communicate with their subordinates. In addition, it is necessary to have a vertical relationship between superiors and subordinates in the same department and a horizontal, diagonal relationship between superiors and colleagues across various departments.

Our company has a shortage of human resources in their late 30s. Therefore, in addition to hiring more young people and training them quickly, we must make senior employees utilize their careers effectively. It is also essential to pass on the know-how of senior employees to younger employees. We have started a training program at the Graduate School of Project Design Sendai School so that senior employees can enhance their skills to verbally express and pass on their expertise to younger employees instead of "to make progress younger employees implicitly" as in the past. Students reflect their skills and learn how to express them in this practical leadership training program.

Shiozaki : Companies hiring seniors can add a

"senior perspective" to the services they provide by seniors playing an active role in the business. Paying attention to the diversity of users is also helpful in enhancing value-added services and human rights.

Yuki : It is necessary to design systems from the seniors' point of view. We use digital billboards on expressways to provide various information, but I wonder whether customers are fully aware of them.

In addition to diversity in customer service, we also want to design an internal diversity system based on the awareness of frontline employees.

I feel that completing the system is not the end of the process. It needs to be meticulously tweaked to be more effective by incorporating the voices of frontline employees regarding the conditions where utilizing the system becomes particularly challenging.

— You have formulated a "Greenhouse Gas Reduction Plan" for the entire expressway business as an environmental aspect and a "Human Resources Development Plan" as a human resource aspect. What is the driving force behind them?

Yuki : From the company's perspective, it comes down to how many employees wish to improve the company and, from an individual's perspective, how happy they are to work for this company. It is all about increasing engagement.

Shiozaki : It is also effective to visualize their motivation through engagement surveys. Also, creating role models for young employees is essential to encourage them to stay with the company longer. Management of managers is also crucial. There may be many challenges, but if you overcome them, you will evolve into an organization that can further develop autonomously.

Yuki : Thank you very much. No "100% correct answer" exists for climate change measures and human resources development. We will continue to search for ways to implement these measures in our company, aiming to create sustainable expressways that will lead us into the future.

Our Vision

Group Business Philosophy

NEXCO East Group supports the development of local communities and the improvement of their quality of life and contributes to revitalizing the entire Japanese economy by maximizing the benefits of expressways.



NEXCO East Group will continue to grow as a company, contributing to all stakeholders by creating an "Interconnectedness" value to realize a thriving society beyond regions, countries, and generations.

We create an "Interconnectedness" value.

NEXCO East Group has established five management policies to realize the Group's business vision.

Group Management Policies

- We prioritize our customers and improve their safety, security, comfort, and convenience.
- We conduct sound group management and provide accurate corporate information through fair and transparent business activities and the optimal use of management resources.
- We support society's development by pursuing progressive efficiency improvements and demonstrating our technology and expertise.
- We create a healthy and rewarding work environment for Group employees, value the efforts and achievements of each employee, and appreciate their go-for-it attitude.
- We promote CSR management, enhance the value delivered to stakeholders and the corporate value of the entire Group, and contribute to realizing a sustainable society.

Medium-term Management Plan (FY2021 - FY2025)



Time to Contribute to Achieve the SDGs and to Transform Toward a New Future Society

NEXCO East Group has defined the five years from FY2021 to FY2025 as "Time to Contribute to Achieve the SDGs and to Transform Toward a New Future Society." We have formulated a "Medium-Term Management Plan (FY2021 to FY2025). Based on this plan, we are promoting various initiatives to fulfill the Group's social mission.

We will revise this medium-term management plan in FY2023, as we need to appropriately and flexibly respond to changes in the business environment surrounding our company and the new social needs of the post-COVID-19 era.

The Basic Policy for Medium-Term Management Plan

- 01 Realize comfortable expressways that are safe, secure, and responsive to innovations such as autonomous driving.**
 - ▶ We will promote improvement in safety through accident countermeasures and ensure punctuality through traffic congestion control.
 - ▶ We will establish road space adapting to innovations such as autonomous driving and truck platooning.
 - ▶ We will strive to create comfortable expressways by improving management sophistication and efficiency.

- 02 Dramatically improve the reliability of expressway infrastructure for aging and disasters.**
 - ▶ We will take appropriate measures for aging structures by upgrading and streamlining maintenance and management operations through the further evolution of SMH.
 - ▶ We will build resilient highways to withstand increasingly severe and frequent disasters.
 - ▶ We will promote new initiatives to support the improvement of expressway infrastructure reliability.

- 03 Enhance network functions by improving and strengthening expressways and promoting four-lane expressways.**
 - ▶ We will improve and enhance the expressway network safely, securely, and steadily for a sustainable society.
 - ▶ We will promote projects considering productivity and infrastructure life cycle costs (LCC) through actively utilizing new ICT.

- 04 Pursue usability based on diverse customer needs.**
 - ▶ We will provide services that are user-friendly, comfortable, and convenient for various customers.
 - ▶ We will promote business activities that contribute to the revitalization of local communities and the promotion of tourism.

- 05 Strengthen the management capabilities of the entire Group for the post-Covid era.**
 - ▶ We will strive to enhance the corporate value of the entire Group.
 - ▶ We will reinforce our existing for-profit businesses and promote new for-profit businesses.
 - ▶ We will engage in environmental conservation through corporate and business activities.

- 06 Realize a work style that enables everyone to thrive in the new normal.**
 - ▶ We will promote further digitalization to establish a business foundation for the new normal and improve work efficiency.
 - ▶ We will improve productivity by creating a rewarding, safe and healthy workplace environment for Group employees.

You can find more information on the "Mid-Term Management Plan Overview" here:
https://www.e-nexco.co.jp/en/company/strategy/mid_term/



NEXCO East Group Primary Key Projects and Contributions for SDGs

This diagram maps the SDGs 169 targets to our primary key projects stated in the NEXCO East Group's medium-term management plan (FY2021-2025). A wide range of numbers is assigned to plans, including business activities that contribute to the achievement of each target.

※ This diagram does not include other regular initiatives since it links the SDGs 169 targets to our primary key projects stated in the medium-term management plan (FY2021-2025).

※ This matrix was prepared based on the Sasaya Matrix, invented by Hidemitsu Sasaya, and his theory of organizing.

★:Main SDGs that NEXCO East Group contributes through our businesses.

		1	2	★ 3	4	5	6	7	★ 8	★ 9	10	★ 11	★ 12	★ 13	14	15	16	★ 17	
Basic Policy 1	Realization of comfortable expressways that are safe and secure and respond to innovations such as autonomous driving																		
Safety and security	* Implement safety measures utilizing new technology for accident-prone areas and provisional two-lane sections.			3.6								9.1		11.2					
	* Implement structural and non-structural measures in areas with high traffic concentration in Tokyo metropolitan area as well as traffic congestion measures by controlling road pricing.			3.9								9.1		11.6	12.4				
	* Engage in research and technological development leading to minimize traffic regulations, disaster mitigation measures, and accident prevention.			3.6								9.1		11.2	11b				
	* Adapt to the speed limit increase (120 km/h) for reducing driver's stress.											9.1							
Adapting to innovation	* Formulate a road improvement plan for autonomous driving and try out a project model.								8.2	9.1	9.5								17.17
	* Establish a supporting environment for platooning and double-connected trucks. (including safety measures for merging points to the main routes)								8.2	9.1	9.5								17.17
	* Establish an efficient supply system for refueling and power charging facilities.						7.3		9.1						13.2				
Improving sophistication and efficiency	* Improve road management utilizing new technologies, such as remote monitoring systems, AI, and sensors.								8.2	9.1	9.5								13.1
	* Improve sophistication and efficiency of toll management, such as remote collection, and work on ETC-dedicated toll gates.			3.3					8.2	9.1									
Basic Policy 2	Dramatic improvement in reliability of expressway infrastructure against aging and disasters																		
Anti-aging measures	* Establish and expand SMH (Smart Maintenance Highway), along with increasing the applicable areas, as well as improving the sophistication of maintenance work and productivity.								8.2	9.1	9.5								17.17
	* Implement anti-aging measures and full-scale preventive maintenance for healthy assets.								8.4	9.1			11.2	12.2					
	* Reduce the number of vehicles violating Vehicle Restriction Ordinance and improve the rate of bridge soundness by optimizing large vehicles on the road.									9.1									16.3
	* Develop technical standards for promoting renewal projects.								8.2	9.1	9.5								
Disaster response	* Improve structures' seismic performance, establish disaster control bases, enhance road control center functions, and improve the organization's disaster response capability.									9.1			11.5	11b		13.1	13.3		
	* Minimize road closures by enhancing functions and optimizing standards as measures against natural hazard risks of severe winds and floods.									9.1			11.5	11b		13.1	13.3		
	* Minimize the risk of road closures and reduce the occurrence of immobilized vehicles due to road closures during winter by enhancing countermeasures against heavy snow and building an advanced and efficient snow and ice control system.								8.2	9.1	9.5			11.5	11b		13.1	13.3	17.17
	* Accelerate disaster response by creating a database of disaster recovery cases.									9.1			11.5	11b		13.1	13.3		
Use and development of new technologies	* Utilize and expand new expressway-related technologies such as RZS (Road Zipper System).			3.6					8.2	8.8	9.1		11.2						
Basic Policy 3	Enhancement of Network Functions by Improving and Reinforcing Expressways and Promoting Four Lanes																		
Enhancement of network functions	* Consider enhancing expressway network centered around the Three Ring Expressways of the National Capital Region and promote road works while ensuring the safety of construction.			3.8					8.9	9.1			11.2	11a					
	* Carry out planned four-laning and additional lane projects (including Doto Expressway, Akita Expressway, Ban-Etsu Expressway, Joban Expressway, and Ken-O Expressway).			3.8					8.9	9.1			11.2	11a					
	* Build new SA/PA commercial facilities in collaboration with rest facility development (such as Bando PA and Sanbu PA).								8.9	9.1			11.2	11a					
	* Enhance access to regions through Smart Interchanges (such as Osarushi, Sugo, Yamagata PA, Hasuda, Miyoshi, and Ozumi).			3.8					8.9	9.1			11.2	11a					
Expressway maintenance with new technologies	* Promote i-Construction and collaboration with SMH and improve construction management efficiency and safety management by AI/IoT technologies.								8.2	8.4	9.1	9.5			12.2				
	* Engage in research and technological development of highly durable pavement repair technology.								8.2	9.1	9.5								
Basic Policy 4	Pursuit of usability based on various customer needs																		
Comfortable and convenient	* Enhance and expand service functions of SA/PA commercial facilities that can respond to changes in customer attributes and lifestyles.		2.1				6.2		8.9	9.1	10.2		11.2	11.7	11a				
	* Implement measures to alleviate congestion at rest facilities and provide real-time parking availability information and comfortable rest space.									9.1			11.2	11.7					
	* Improve the sophistication of providing real-time information in the event of a disaster or traffic disruption.			3.6					8.2	9.1			11.2	11.6					
	* Respond to flexible pricing by developing a new toll system.								8.2	9.1			11.2						
Commit to local communities	* Utilize expressways to enhance local cooperation and to create new added value.									9.1									17.16 17.17
	* Contribute to local revitalization through tourism promotion in areas visited by various tourists such as inbound tourists.				4.7				8.9										17.17
Basic Policy 5	Reinforcement of the managerial capability in the post-Covid-19																		
Reinforce managerial capability	* Support SDGs for creating a sustainable society.																		
	* Operate strong group management that can respond to the pandemic.									9.1									16.7
	* Engage in sustainable international cooperation using technological capability and expertise.				4.4					9.1	9a								17.16 17.17
	* Provide training for our Group employee's skill development as well as human resource development.				4.4	5.1			8.5		10.2								
	* Create a revenue base that can respond to changes in the social environment in SA/PA businesses.								8.2										17.17
	* Establish a business that can become a new primary revenue source through external alliances.								8.2										17.16
Environmental conservation	* Actively utilize low fuel consumption and low emission equipment and minimize energy consumption.			3.9				7.2	7.3			9.4		11.6	12.2	12.5	13.2		
	* Support the environmental management system (ISO14001) based on environmental policies, such as Net-Zero Emissions by 2050, as well as continue to meet the certification requirements.			3.9				6.3	7.2	7.3		9.4		11.6	12.2	12.4	12.5	13.2	14.1
Basic Policy 6	Creating a work style that responds to a new lifestyle and in which everyone can enjoy working																		
Work Efficiency	* Digitalize all work processes, convert to a work style using smart devices, and create an environment suitable for a new work style.								8.2	8.5									
	* Improve work efficiency about current methods of putting seals, giving approvals, and storing documents and support new work styles, such as telework.								8.2	8.5									
	* Promote "Work Style Reform" by implementing a new procurement management system, reviewing the current procurement flow, and implementing digital transformation.								8.2	8.5									
Work environment where employees can enjoy working	* Reduce annual total actual working hours by reducing long work hours and further promote taking annual leave.			3.4		5.5			8.5										
	* Promote occupational safety and health by further raising safety awareness and taking initiatives to reduce construction accidents.				4.4				8.8										

Indicators and Financial Plan

KPI

We have set five key performance indicators to achieve during the period of our medium-term management plan with the following three perspectives: "improvement of customer satisfaction, representing the results of our overall business," "improvement of safety, security, comfort, and convenience related to each of our expressway, service area, and parking area businesses," and "improvement of our employee work styles."

[Key Performance Indicator]

No.	Item	Performance		Objectives
		FY2021	FY2022	FY2025
1	Overall customer satisfaction	3.7pts	3.7pts	3.7pts/5.0 (Overall CS)
2	Time lost on main routes due to congestion ^{*1}	5.9 million vehicles/hour	7.88 million vehicles/hour	7.7 million vehicles/hour
3	Comfortable driving road surface rate	95%	95%	95%
4	Operating margin ^{*2}	- 7.9%	7.5%	5.8%
5	Total Annual Actual Working Hours	1,972 hours	1,960 hours	1,950 hours

*1 The sum of the extra time customers spend traveling on expressways due to traffic congestion on main routes (calendar year values).

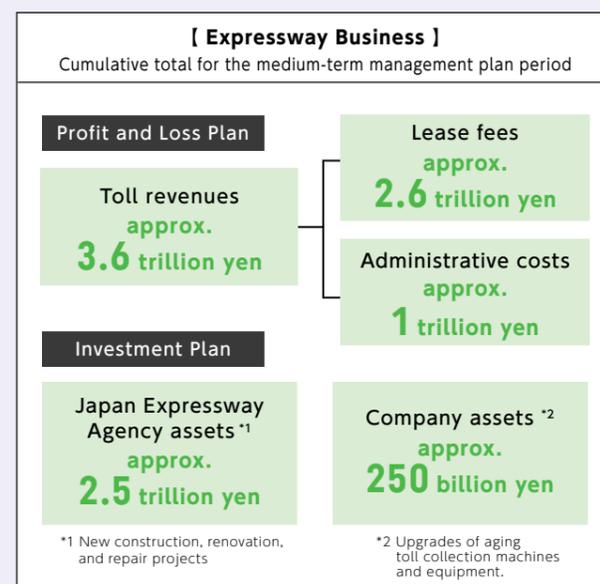
*2 Consolidated SA/PA businesses

Profit and Loss and Investment Plan for Expressway Business

Regarding profit and loss, the toll revenues from our customers will be used for the following: necessary expressway operation and steady payments of lease fees to repay the debt owned by the Japan Expressway Agency based on the agreement with the Agency.

Concerning investment of the Japan Expressway Agency assets, we have the following plans based on the agreement with the Agency: new construction and reconstruction, including projects for the Tokyo-Gaikan Expressway (between Oizumi JCT and Chuo JCT), the Yokohama Kanjo-Minami Expressway (between Kamariya JCT and Totsuka), and the Joban Expressway four-lane project, as well as repair projects such as Expressway Renewal Projects.

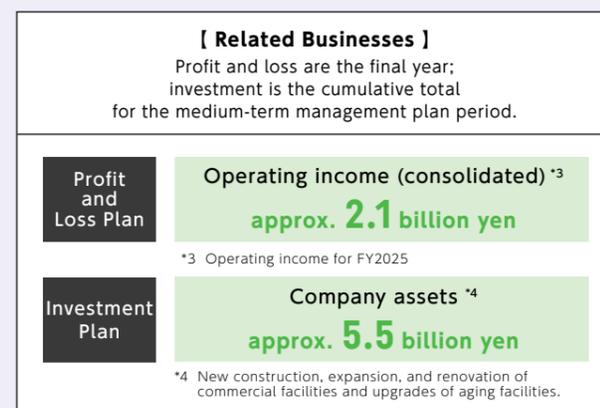
As for company asset investments, we plan to maintain toll collection machines and ETC systems and upgrade aging facilities.



Profit and Loss and Investment Plan for Related Businesses

Regarding profit and loss, we will improve customer service and corporate value by optimizing management resources and enhancing profitability through further optimization.

Investments are planned for new construction, expansion, commercial facility renovation, aging facility upgrades, and system replacement.



Strengthening of Financial Foundation

Income from tolls is used to maintain and manage expressways, provide various services, and pay lease fees to the Japan Expressway Agency.

Meanwhile, funds required for expressway construction and renewal projects are raised by issuing corporate bonds and borrowing from financial institutions.

Consolidated Financial Statements (last five years)

◆ Consolidated Balance Sheet

The assets consist primarily of work-in-process expressway assets to be delivered to the Japan Expressway Agency, and the liabilities consist mainly of expressway construction-related corporate bonds and long-term loans acquired for the construction of expressway assets.

Consolidated Balance Sheet

(unit:100 million yen)

Account Items	FY2018	FY2019	FY2020	FY2021	FY2022
Assets					
Current assets	9,303	9,498	10,073	11,805	13,775
Cash and deposits	1,180	965	1,090	996	1,071
Work-in-process expressway assets	5,395	6,081	6,212	7,609	9,066
Other current assets	2,726	2,451	2,770	3,199	3,637
Non-current assets	3,163	3,369	3,461	3,538	3,656
Property, plant, and equipment	2,578	2,712	2,798	2,808	2,789
Intangible assets	149	188	223	277	322
Investments and other assets	435	468	438	452	544
Deferred assets	7	11	14	18	18
Total assets	12,474	12,879	13,550	15,362	17,450
Liabilities					
Current liabilities	3,472	2,614	2,395	2,610	3,299
Non-current liabilities	6,694	7,859	8,811	10,397	11,749
Bonds and long-term loans payables for the construction of expressways	5,669	6,806	7,309	9,014	10,365
Other non-current liabilities	1,024	1,053	1,502	1,383	1,384
Total liabilities	10,166	10,473	11,207	13,007	15,048
Net assets					
Shareholders' equity	2,442	2,542	2,444	2,427	2,501
Capital stock	525	525	525	525	525
Capital surplus	587	587	587	587	587
Retained earnings	1,329	1,429	1,331	1,314	1,388
Accumulated other comprehensive income	△ 134	△ 136	△ 101	△ 72	△ 99
Total net assets	2,308	2,405	2,343	2,354	2,401
Total of liabilities and net assets	12,474	12,879	13,550	15,362	17,450

(Calculations indicated on the table may not be accurate since figures are rounded down to the nearest 100 million yen.)

◆ Consolidated Statement of Income

A significant portion of Operating revenue consists of toll revenue from the expressway business, appreciation of completed expressway assets from newly opened expressways, and sales revenues from related businesses. Operating expenses are mainly lease fees for expressway assets based on the agreement with the Japan Expressway Agency and administrative expense of expressway businesses. Furthermore, the cost of completed expressway assets equals the appreciation of completed expressway assets.

Operating loss for FY2022 is 5.1 billion yen, and the net profit attributable to owners of the parent company is 7.3 billion yen.

Consolidated Statement of Income

(unit: 100 million yen)

Account Items	FY2018	FY2019	FY2020	FY2021	FY2022
Operating revenue	19,431	12,643	11,946	10,303	11,086
Expressway Business	18,659	11,817	11,281	9,838	10,495
Toll income	8,599	8,574	7,143	7,416	7,917
Appreciation of completed expressway assets	9,985	3,160	4,058	2,348	2,504
Other operating revenue	74	82	79	73	74
Related Businesses	838	891	742	555	672
Rest area and parking area business	416	406	243	248	311
Consignment and other businesses	422	484	498	307	360
Elimination of intersegment transactions	△ 66	△ 65	△ 77	△ 90	△ 81
Operating expenses	19,386	12,542	12,005	10,351	11,137
Expressway Business	18,649	11,741	11,300	9,871	10,572
Lease fees for expressway assets	6,211	6,118	4,809	5,168	5,579
Cost of completed expressway assets	9,985	3,160	4,058	2,348	2,504
Administrative expense, etc.	2,451	2,462	2,432	※ 2,355	※ 2,488
Related Businesses	805	867	783	570	647
Rest area and parking area business	385	384	291	267	288
Consignment and other businesses	419	482	492	302	359
Elimination of intersegment transactions	△ 67	△ 65	△ 77	△ 90	△ 82
Operating profit (△loss)	44	100	△ 59	△ 47	△ 51
Expressway Business	10	76	△ 18	※ △ 33	※ △ 76
Related Businesses	32	23	△ 41	△ 14	25
Ordinary income (△loss)	75	137	△ 25	△ 12	△ 17
Net profit attributable to owners of the parent company (△loss)	41	99	△ 97	※ △ 14	※ 73

(Calculations indicated on the table may not be accurate since figures are rounded down to the nearest 100 million yen.)

* We are focusing on earthquake-resistant measures project for bridges with rocking piers among overpasses crossing expressways managed by local governments in order to ensure safe traffic on expressways. This project uses the "reserve funds for earthquake-resistant measures for overpasses," funded by retained earnings from the expressway business. It is not recorded as operating revenue, but 10.3 billion yen is included in management and other expenses. When excluding this project, the operating profit for the expressway business is 6.9 billion yen, and the net profit is 8.8 billion yen.

Note: Our group's business segments and main descriptions are as follows.

Business Segments		Main Contents
Expressway Business		New construction, reconstruction, maintenance, repair, disaster recovery, and other management for expressways
Related businesses	SA and PA business	Construction and management of rest areas and gas stations on expressways
	Consignment Business	New construction, reconstruction, maintenance, and repair of roads based on commissions from the national and local authorities and other projects based on consignments
	Other businesses	Parking lot business, truck terminal business, and others

01 Expressway Operation Business

24 Hours a Day, Seven Days a Week, for Safety, Security, Comfort, and Convenience

In order to ensure the safety of our expressway customers, we are working daily to solve issues, including responses to accidents, vehicle breakdowns, falling objects, and other unusual incidents, daily maintenance and repairs, measures to prevent wrong-way driving, and enhancement of traffic safety facilities.

We also strive to improve the conditions of toll plazas as an entrance to expressways for stable operation amid a declining workforce by collecting tolls from remote locations.

Protecting Customer Safety With Skillful Field Experience

[Traffic Patrols]

We patrol expressways 24 hours a day, seven days a week, to check for any abnormalities in roads and traffic. Also, in unusual events such as accidents, vehicle breakdowns, and falling objects, we rush to the scene and cooperate with the police and fire departments to regulate traffic and respond to the incident.

[Guidance and Enforcement of Vehicles in Violation of Laws and Regulations]

To protect the safety of expressways, we provide guidance and enforcement on vehicles violating laws and regulations to prevent vehicles exceeding the regulated maximum length and weight (general limits) or vehicles carrying hazardous materials that should not be loaded when traveling through long tunnels. Primarily, we strictly enforce guidance and control on overweight vehicles since they can seriously affect the deterioration of road structures and lead to severe accidents. Therefore, enforcement is carried out rigorously at entrance toll gates.



Enforcing highway vehicle regulations



Clearing falling objects

Traffic Control Data

Distance of traffic patrol: approx. **64,000** km /day

Emergency calls received: approx. **9,900** calls

Number of cleared falling objects: approx. **94,000** cases

Number of monitoring practices for vehicle regulation violations: approx. **1,500** times

[Road Control Centers]

Our four Road Control Centers comprise the Traffic Control and Facility Control Sections. The Traffic Control Section monitors expressways, acts as a control tower for traffic management operations, responds to unusual incidents, and provides information to customers. The Facility Control Section monitors tunnels and emergency facilities. The Road Control Centers strive day and night to provide safe, secure, comfortable, and convenient expressways.



Road Control Center, Kanto Regional Head Office

Protecting Customers From Danger by Enhancing Traffic Safety Facilities

[Preventing Wrong-Way Driving]

Driving in the wrong way on expressways can lead to severe accidents, so we take measures to prevent it with road surface markings and signs.

[Use of Historical Data to Prevent Accidents]

Road signs and lane markings are installed at sharp curves to encourage drivers to slow down, and traffic safety measures are implemented to control speed and prevent lane departure based on an analysis of past traffic accidents.



Countermeasures for wrong-way driving at a ramp merging section

[Prevention of Head-on Collisions on Provisional Two-Lane Sections]

We are taking the initiative to prevent head-on collisions caused by drivers encroaching into the opposite lane. Head-on collisions resulting in death or injury have been eliminated in areas where the measures were implemented. (As of March 31, 2023)



Center pipe divider at the viaduct section



Leading lane marks (Broken lines)

Quickly Detecting Abnormalities in Structures and Responding Promptly

[Inspections for structures]

We also perform prompt inspections in the event of a major disaster, in addition to routine inspections of road structures and appurtenances.

[Maintenance and Repair]

We systematically clean and repair road structures and appurtenances and conduct construction work to improve their functions.



Bridge inspection



Inspection of a power substation



Cleaning of tunnel ventilation equipment



Pavement repair work

Sophisticated and Efficient Toll Collection for the Declining Workforce

[Initiatives for Sustainability]

At our toll plazas, we strive to ensure safe travel for our customers, appropriate lane operation in response to traffic conditions, and improve customer services for a pleasant user experience. In addition, we are working to improve the sophistication and efficiency of toll collection in anticipation of a declining workforce.

① Installation and remote access of toll collection machines

We have installed toll collection machines along the exit lanes of toll plazas to create an environment where customers can be served remotely from operation centers or neighboring toll booths. Through this effort, we will improve the efficiency of toll collection and establish a sustainable system by securing a stable workforce in the future.

② Cashless and contactless system

We started operating toll booths dedicated to ETC (Electronic Toll Collection system) at the Toda-Nishi IC and Toda-Higashi IC on the Tokyo-Gaikan Expressway in April 2022. We will systematically promote the cashless/contactless tollgates based on the operational status.



Operation Centers to Remotely Manage Toll Booths



Toll collection machine

Disaster-Resilient Expressways Mission for Disaster Prevention and Mitigation

NEXCO East Group, using everything in its power, has repeatedly recovered expressway functions damaged by disasters such as the Great East Japan Earthquake (March 2011), other significant earthquakes, typhoons, and torrential rains.

In recent years, we have been striving to mitigate damage and build expressways disaster-prevention centers to ensure that expressways will sustainably fulfill their role in the face of increasingly severe and frequent natural disasters.

Building Disaster-Resilient Roads

[Minimizing Damage and Restoring Expressway Functions Quickly]

An ability to quickly recover expressway functions is essential even if a large earthquake damages them. Various measures have been incorporated into expressway structures to prepare for such contingencies.

For example, measures are undertaken to prevent road surface drop-offs or viaduct girder displacement due to earthquakes, aside from reinforcing bridge piers.

Various preventive efforts are also put into earthwork sections, including removing water retained in the embankment to prevent it from collapsing.



Seismic reinforcement of the Shiozawa bridge jacketing work _ (Miyo River bridge (outbound), P4 bridge pier)

You can find more information on "Disaster Prevention and Mitigation here:
https://www.e-nexco.co.jp/en/company/strategy/mid_term/



Joint exercise with related agencies



Onsite restoration support by expert technicians

[Cooperation with Related Agencies]

We conduct joint emergency management exercises with related agencies such as police and fire departments using service areas converted into disaster prevention bases since cooperation with them is indispensable in disaster response. In addition, we have concluded a disaster cooperation agreement among infrastructure companies to protect people's lives.

[Onsite Support by Disaster Prevention Experts]

The NEXCO East Technology Center for Development and Education has expert engineers and technicians with a wealth of knowledge and experience. They support rapid onsite restoration by directly advising on-scene employees on technical issues and how to handle emergencies when a disaster strikes.

[Hasuda SA with a Disaster Prevention Base Function]

In addition to promoting communities along the road and supporting local emergency medical care, the Hasuda SA is equipped with functions to provide a place and support for fire departments and medical providers in the event of a large-scale disaster, such as an earthquake striking directly under the Tokyo metropolitan area. The facility has a well, a heliport, and a disaster prevention storage equipped with food and blankets to enhance its function as a disaster prevention base.

Emergency gate:
Ensuring access for emergency vehicles

Increased oil tank capacity for fuel

Installation of power generator for power outages

Installation of a well for water outages

Utilization of food court as disaster management base headquarters:
Reinforcement of earthquake resistance of operating area

Emergency supply storage depot:
Storing traffic control and safety equipment, temporary lighting system, blankets, etc.

Heliport:
Ensuring safe daytime and nighttime takeoffs and landings by installing lighting equipment and an office

Building Sound Social Infrastructures for the Future Renewal Projects Underway

The proportion of expressways over 50 years old operated by the NEXCO East Group will exceed 20% by 2030 and 70% by 2050. Increased heavy vehicle traffic and the impact of antifreeze are among the leading causes of accelerated infrastructure aging. In particular, viaducts and tunnels have started showing significant deformation.

We will engage in systematic renewal projects to ensure the safety of expressways, a vital infrastructure that supports our economy and lifestyles, for the future.

[Construction Details of the Expressway Renewal Project]



Replacing bridge deck slabs^{*1}

Replace existing deck slabs with concrete slabs of high durability.

^{*1} Deck slab: A structural component that directly supports a vehicle passing through a bridge and transmits the load to the girders.



Example of bridge deck slab replacement work



Applying waterproofing membranes to the deck slabs

Apply high-performance waterproofing membranes to prevent deterioration of the concrete slabs.



Reinforcing girders

Add reinforcements to the girders to increase durability.



Installing inverted arches^{*2}

Install inverted arches to improve the stability of the structure of the tunnels experiencing excessive force.

^{*2} Inverted arch: A semi-circular-shaped concrete support is installed underneath the road surface to prevent deformation by making the shape of the tunnel circular to distribute stress.



Image of countermeasure construction



Installing ground anchors^{*3}

Install high anti-corrosive ground anchors to ensure the long-term stability of the cut slope area.

^{*3} Ground anchor: Stabilizes the deforming force of a cut slope by driving high-strength steel rods into the slope.

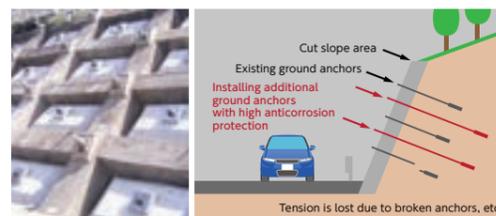


Image of countermeasure construction

more information on the Expressway Renewal Project here:
<https://www.e-nexco.co.jp/en/renewal/>



Minimizing Impact on Customers

[Kamariya Daini Viaduct on the Yokohama-Yokosuka Expressway] (an example of construction in FY2022)

This is the first project to replace bridge deck slabs in the Tokyo metropolitan area with heavy-traffic routes.

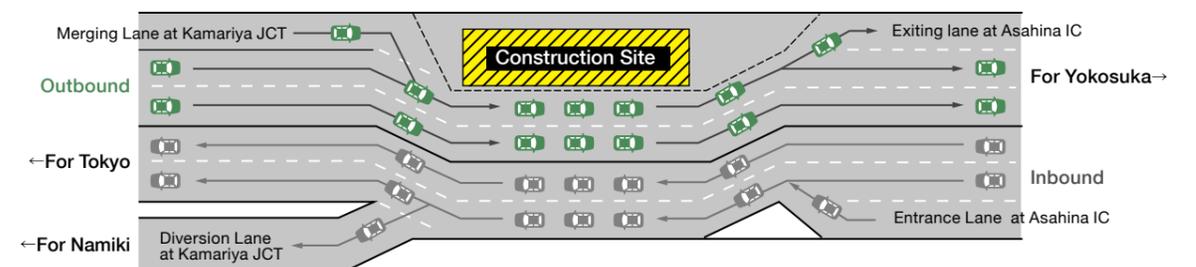
The Kamariya Daini Viaduct (between Kamariya JCT and Asahina IC on the Yokohama-Yokosuka Expressway) is heavily congested, with traffic exceeding 60,000 vehicles daily. It was necessary to maintain the existing number of lanes (four lanes) during the construction to minimize congestion. Therefore, we replaced deck slabs while maintaining four lanes for customers with a two-lane wide construction area by eliminating a median strip and reducing the shoulder widths (shown in the figure below). We also paid attention to the fact that traffic volume is reduced at night, which enable us to widen the construction area to three-lane widths by reducing four lanes to three to shorten the construction period. We promptly switched to a nighttime construction setup using a Road Zipper System.

We believe this project will serve as a model case for future deck slab replacement projects in the Tokyo metropolitan area with heavy-traffic routes.



Deck slab replacement construction
(Kamariya Daini Viaduct, Yokohama-Yokosuka Expressway)

Road Zipper System



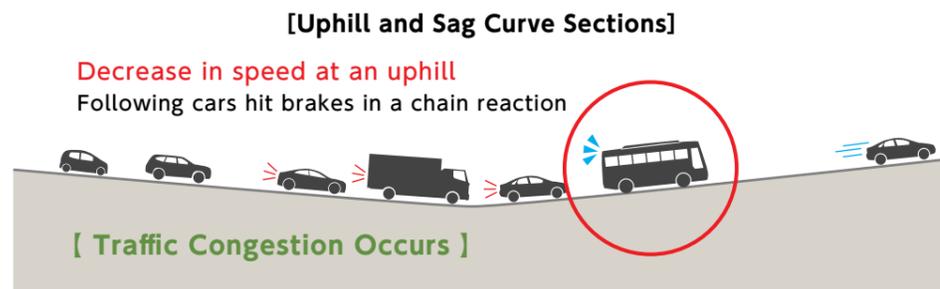
Analyzing With the State-Of-Art Technology to Reduce Stress From Traffic Congestion for Customers

73% of traffic congestion is caused by heavy traffic, and 59% occurs on uphill and sag curve sections. NEXCO East Group strives to reduce customer stress by implementing measures to control slowdowns and alleviate traffic congestion with added lanes. In addition, we promote forecasting traffic congestion by utilizing past traffic congestion data and real-time population statistics for greater sophistication of traffic congestion forecasts.

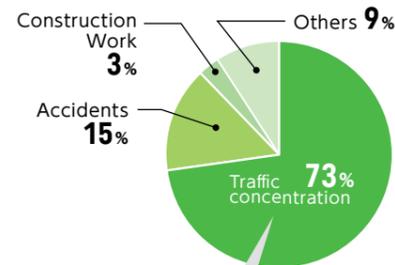
Avoiding Traffic Congestion Caused by Slowdowns

[Slowdowns at Congested Points]

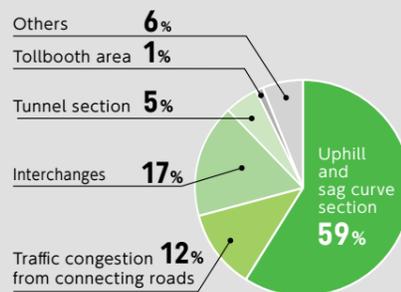
Traffic congestion occurs most frequently in uphill and sag curve areas. We are working to control slowdowns of vehicles to ease traffic congestion.



[Causes of Traffic Congestion]



[Traffic Concentration Point]



Controlling Slowdowns in Uphill and Sag Curve Areas

Signs and a "pacemaker" lighting system* have been installed at significant congestion areas to discourage slowdowns and encourage speed recovery, which has proven to be effective.

*Lights flash in the direction of travel at a certain speed to guide vehicles, which helps keep the traffic speed constant.



pacemaker light

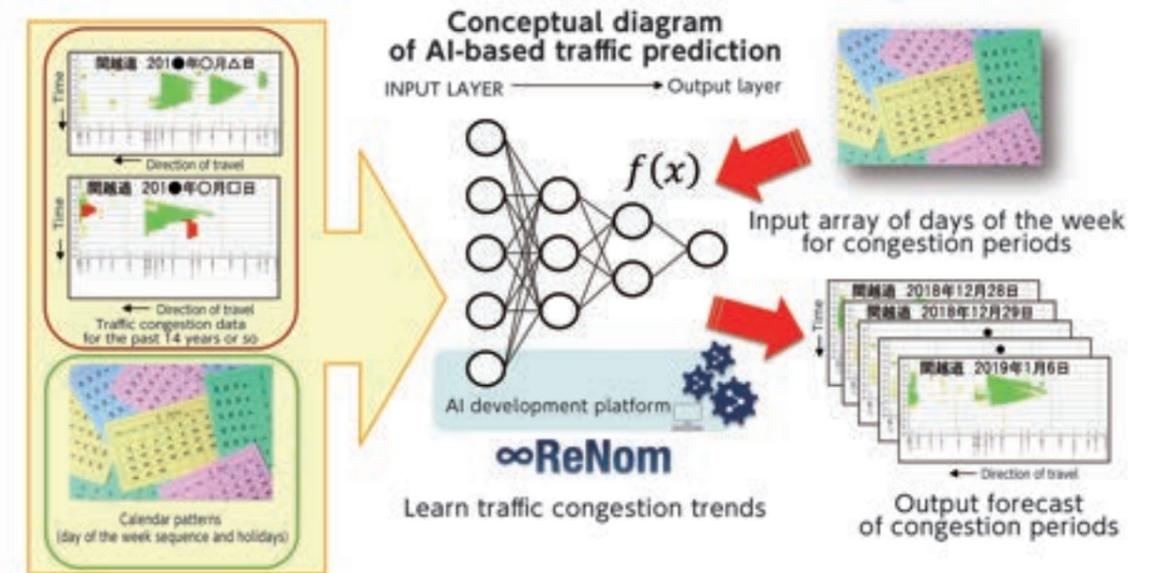
You can find more information on "Congestion Solutions for Expressways" here:
https://www.e-nexco.co.jp/en/company/strategy/mid_term/



Traffic Congestion Prediction Using AI (Artificial Intelligence)

[Long-Term Traffic Congestion Prediction]

Traffic prediction during busy periods or several months in the future is made based on past traffic congestion records and other factors such as the days of the week, changes in road conditions, and events in the surrounding areas. NEXCO East and GRID Co. have developed a technology that uses AI, which learns the information above, to predict traffic congestion at a specific date, time, and location.



[Same-day Traffic Congestion Prediction]

The "AI Traffic Prediction" is being implemented on three routes (Tokyo Bay Aqualine, Kan-Etsu Expressway, and Keiyo Expressway) by combining NTT DOCOMO's real-time population statistics and AI technology with our own past traffic jam data and traffic engineering knowledge. All of them are carried out on inbound routes, and the predicted traveling time and traffic demand every 30 minutes after 14:00 are updated on our website (DORAPURA) at 13:00 every day.

You can find more information on AI Traffic Prediction here: (Japanese Site)
https://www.driveplaza.com/trip/area/kanto/traffic/ai_traffic_prediction.html



Evolving Service Areas Joyous and Relaxing Place for Everyone



Comfortable rest and relaxation at service areas and parking areas (SAs/PAs) can reduce drivers' stress and help them drive safely.

NEXCO East Group strives to improve the quality of SAs/PAs in response to customer needs and changes in the social environment to enhance the facilities to offer enjoyment and relaxation.

More Convenient and Comfortable SAs/PAs

[Accessibility]

We promote accessible facilities by adopting universal designs, eliminating the differing floor elevations, keeping wheelchairs and writing boards at information desks, and installing accessible parking spaces.



Disability parking spaces

[Improving Restroom Functions]

We are upgrading our restrooms by replacing Japanese-style toilets with Western-style, installing large universal restrooms with baby protection seats and small sinks, children's toilets, and a stoma-friendly environment for ostomates (with sinks and hand washing basins for those with ostomy or urostomy).



Large universal washroom



Baby change stations and a nursing room

[Space for Children and Infants]

Many of our SAs/PAs have diaper-changing stations and nursing rooms for the comfort of families with small children. Even some small-sized SAs/PAs have baby care rooms.

[Installing Shower Stalls]

Shower stalls have been installed at SAs/PAs to meet customers' needs.



Coin-operated shower stalls



Area concierge (SA-PA information)

[Accessibility Mindset]

Information desks at SAs/PAs have been certified by the Japan Tourism Agency as a "Barrier-Free Tourism Facility" and by the Japan National Tourist Organization as a "Tourist Information Center (Category 1)" so that all customers can use expressways with peace of mind. Our area concierges provide personalized information to every customer.

02 Expressway Construction Business

Supporting Local Community Development With Enhanced Expressway Functions

NEXCO East Group's significant challenges include building disaster-resistant expressways, eliminating missing links (sections with no operational expressway where expressways are cut off), converting provisional two-lane sections into four lanes, and installing smart ICs.

By steadily improving the network, we will not only secure alternative routes in the event of a disaster but also provide "safe, secure, comfortable, and convenient expressway services," helping to improve the quality of life in local communities.

Improving People's Quality of Life With Network Improvement

[Eliminating Missing Links]

In the Tokyo metropolitan area, the section between Sakai-Koga IC and Tsukuba-Chuo IC on the Ken-O Expressway was opened in 2017, connecting the Tomei Expressway to the Higashi-Kanto Expressway. The Tokyo-Gaikan Expressway also opened between Misato-Minami IC and Koya JCT in 2018, connecting the Kan-Etsu Expressway to the Higashi-Kanto Expressway.

Currently, we are working on constructions for the following sections to eliminate missing links: Between Chuo JCT and Oizumi JCT on the Tokyo-Gaikan Expressway, between Kamariya JCT and Totsuka IC and between Sakae IC/JCT and Fujisawa IC on the Yokohama Kanjo-Minami Expressway (Ken-O Expressway), and between Taiei JCT and Matsuo-Yokoshiba IC on the Ken-O Expressway. It is expected to ensure time reliability, stimulate local economies, and serve as an emergency transportation routes in a disaster.

New Project on the Yokohama Kanjo-Minami Expressway

The Yokohama Kanjo-Minami Expressway, part of the Ken-O Expressway, is an approximately 8.9 km long expressway connecting Kamariya JCT on the Yokohama-Yokosuka Expressway and National Route 1. We are undertaking this project with the Ministry of Land, Infrastructure, Transport and Tourism.

It is expected to improve logistics efficiency by reducing travel time and punctuality between the Port of Yokohama and the inland region of the Tokyo metropolitan area. As a result, it will more likely bring economic benefits such as inter-regional interactions and business expansion along the route. In addition, it will serve as an emergency transportation route, a detour, or an alternative route in the event of a disaster or a road disruption.



Construction around Kamaria JCT



[Kamariya-Shodo Tunnel Construction]

The Shodo Tunnel is located at the connection with the Yokohama-Yokosuka Expressway and will have a maximum of five lanes, including three main lanes and two ramps. It is one of the world's most extensive road tunnels to be constructed using the NATM (New Austrian Tunneling Method), with a maximum width of 29 m, a maximum height of 20 m, and an excavated cross-sectional area of approximately 480 m².

In the center of the photo, the two-lane ramp section is on the left, and the right side shows the three main lanes.

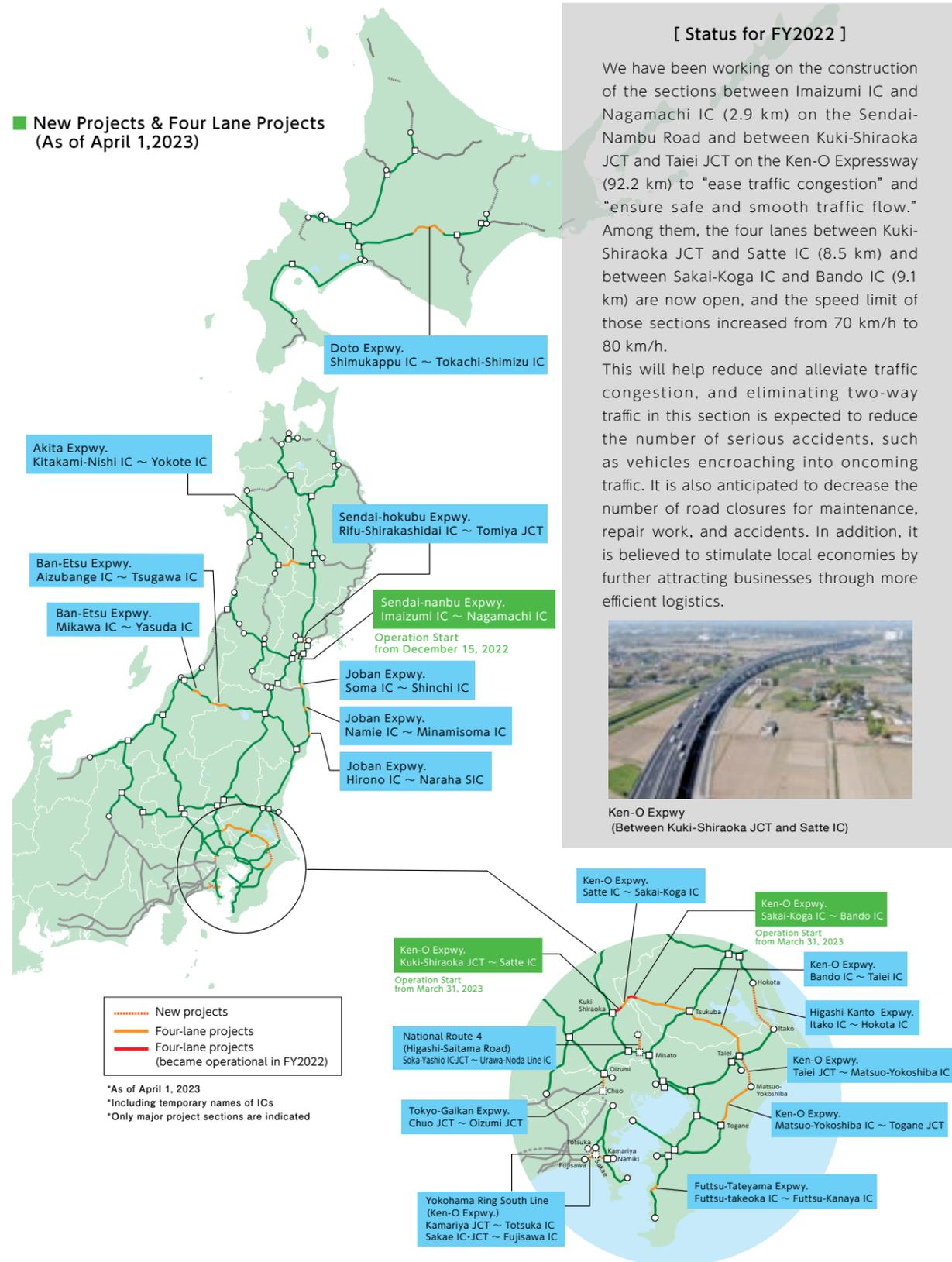
You can find the details of the "Yokohama Kanjo-Minami Expressway" here:
(Official Site Operated by e-NEXCO /Japanese Site)

<https://www.yokokan-minami.com/site/>



[Converting Provisional Two-lane Sections to Four Lanes]

Four-laning of provisional two lanes leads to time reliability, reduced road closures, and network substitutability in the event of a disaster or heavy snowfall. We strive to systematically convert to four lanes to improve safety and security functions.



[Developing Local Revitalization IC and Smart IC]

Smart IC (SICs) is exclusively for ETC-equipped vehicles. It can be introduced at less cost than originals. We are engaged in establishing SICs and local revitalizing ICs in order to optimize the use of existing expressways, improve the quality of life in local communities and stimulate local economies while collaborating with local governments.



Kanra SIC (Joshin-Etsu Expwy.)



Idebaru SIC (Westbound Gate / Kita-Kanto Expwy.)

Promoting i-Construction

[Improving Productivity in the Construction Business]

Productivity improvement is an unavoidable challenge in the construction industry in Japan as the working population is expected to decline. We are promoting i-Construction to improve productivity further, as we are responsible for constructing and operating essential infrastructure, "expressways."

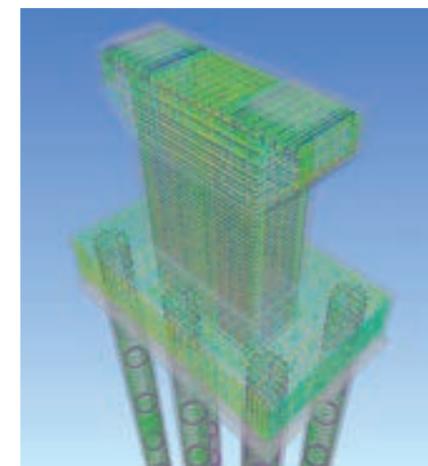
We are working to streamline the construction process and improve safety, productivity, and quality by implementing ICT construction using 3D data from the construction phase in the four-laning project between Mikawa IC and Yasuda IC on the Ban-Etsu Expressway. Also, we strive to create a mechanism that effectively utilizes a system and data collected in the construction phase for road operation after the section's opening.



Image of 3D model



Image of AR experience



Reinforcement model image with attribute information (detail level 400)

● i-Construction

i-Construction is an initiative to improve the entire construction production system's productivity and make construction sites more attractive by introducing measures such as the "full use of ICT earthwork."*

*ICT (Information and Communication Technology) is implemented in all earthwork processes, including survey, design, construction planning, construction, and inspection, along with constant use of 3D data.

You can find the details of i-Construction here: (Ministry of Land, Infrastructure, Transport and Tourism Website / Japanese site)

<https://www.mlit.go.jp/tec/i-construction/index.html>



03 Technology Development & International Business

To the Future Expressways That Support Autonomous Driving Technology

Regarding developing and popularizing autonomous and advanced driving systems, level 3 Conditional Driving Automation (partially full driving automation) is now being marketed. Therefore, expressways will also respond to the expansion of system operating areas by improving the driving environment and working to realize the vision of next-generation expressways to ensure the safety of road traffic, which is evolving into an autonomous driving society.

Accelerating the Realization of an Autonomous Driving Society Vision of Next-Generation Expressways (Concept)

[Promotion of "moVision"]

We have launched a project to conceptualize the "Vision of Next-Generation Expressways," incorporating 31 items to provide new mobility services to solve social issues toward advancing expressway functions and services and realizing an autonomous driving society. We have nicknamed the project "moVision" and created a logomark to make the concept more widely known to the public. The nickname "moVision" is a coined word combining "Mobility" and "Vision," and the logomark expresses the road toward the future.

[Image of the Future Goal, "Primary Projects"]



You can find more information on "moVision" here: <https://www.e-nexco.co.jp/en/activity/safety/future/>



[Creating an Animation]

We have created an animation, "203X Next Generation Expressway," to explain the concept.



[Logo and Animation (excerpts)]



You can see the animation here: <https://www.e-nexco.co.jp/activity/safety/future/>



Project Names	Overview
1 Next Generation Highway Radio	Provide road and traffic condition information on the direction of travel based on the driving location.
2 Snowplow Operation Support System	Support snowplows using the quasi-zenith satellite.
3 Anomaly Detection Using Probe Data	Identify anomalies early using probe data collected from vehicles.
4 Traffic Demand Control	Fluctuate toll rates based on traffic conditions.
5 High Capacity Communication Facilities	Establish communication facilities to collect and distribute various data.
6 Advanced Traffic Prediction	Provide highly accurate traffic prediction using AI and other technologies.
7 Merging Assistance for Autonomous Vehicles	Develop a system that shares information on vehicles traveling on the main routes with merging vehicles to support and facilitate smooth merging.
8 Real-Time Monitoring System of the Entire Routes	Monitor expressway conditions continuously using cameras.
9 Drone Patrol	Inspect traffic and road conditions using drones.
10 Advanced Overloaded Vehicle Monitoring	Enhance surveillance and patrol of overloaded vehicles using digital technology.
11 Parking for Large Vehicles	Establish parking areas for oversized vehicles.
12 Reserved Parking Space	Install reservable parking spaces at SAs and PAs.
13 Smart Grid	Transform an expressway electrical grid into a smart grid.
14 Innovative Mobility Services	Establish mobility hubs where people can transfer to other modes of transportation.
15 Next-Generation Fuel Service Stations	Install wireless EV charging stations and hydrogen refueling stations.
16 Signs for Autonomous Driving	Install signs compatible with automated driving recognition technologies.
17 Conversion of Idle Facilities Into Compact Parking Areas	Convert currently unused facilities into parking areas.
18 Logistic Mobility as a Service (MaaS)	Establish logistics hubs as bases for double trailer trucks and forming and separating platooning.
19 Self-Driving Car Lanes	Install lanes dedicated to autonomous and platooning vehicles.
20 Content Delivery	Deliver content that can be enjoyed in a car during automated driving.
21 Automated Inspection Vehicles	Inspect expressways efficiently using automated inspection vehicles.
22 EV Charging While Moving	Install wireless EV charging lanes so that electric vehicles can be charged while in motion.
23 Valet Parking	Develop valet parking areas where vehicles automatically drive to and park themselves in designated parking spaces.
24 Disaster Response Enhancement	Identify natural disaster information early using meteorological observation data and satellite images.
25 Operation Management Based on Lane and Vehicle Types	Enhance operation management by dedicating lanes to certain vehicle types.
26 Next-Generation Billing System	Implement a next-generation billing system that detects travel routes and calculates toll charges automatically.
27 Maintenance and Repair Automation	Implement automated expressway maintenance and repair vehicles.
28 Next-Generation Traffic Rules	Implement traffic rules for autonomous vehicles.
29 Data Coordination	Coordinate collected data on expressways with external data and enhance information provision.
30 Automated Snowplow Control	Remove snow using automated driving.
31 Optimization of Road Structure	Streamline road structure by improving traffic capacity.

The State-Of-The-Art Technology Upgrading Future Expressway Operation

Securing human resources to support expressway operation and construction and improving productivity are pressing issues amid a declining working population. As expressway professionals, we strive to build sustainable expressways using the latest technology to support the knowledge and experience required to maintain optimal decision-making and improve road operation's sophistication and efficiency.

Promotion of SMH Projects ~ Improving Productivity of Operation Management~

[Basic Plan for SMH Project]

SMH (Smart Maintenance Highway) is a project to improve productivity in asset management of expressways by utilizing the latest technologies such as ICT (Information and Communication Technology), robotics, and AI to ensure the long-term "safety and security" of expressways. It aims to streamline and optimize operations, standardize the decision-making process in each operation, and increase productivity.

You can find more information on SMH here:
https://www.e-nexco.co.jp/en/company/strategy/mid_term/



[Streamlining and Improving Inspection Work Using Robotics Technology]

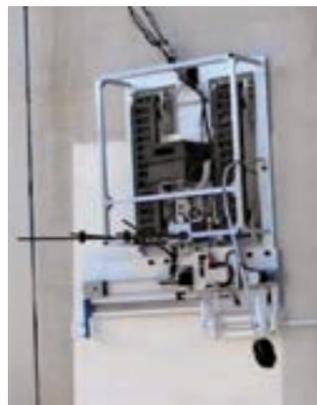
We strive to improve and optimize our inspection work by checking the appropriateness of inspection work for viaducts and structures that are difficult to approach or are in dark areas for visual inspection through verification tests of robotics technology, such as drones flying non-GNSS (Global Navigation Satellite System) environments.

[Spider-eye]



Inspection of the underside of the viaduct deck slab

[Wall Climbing Inspection Robot]



Inspection of tall piers

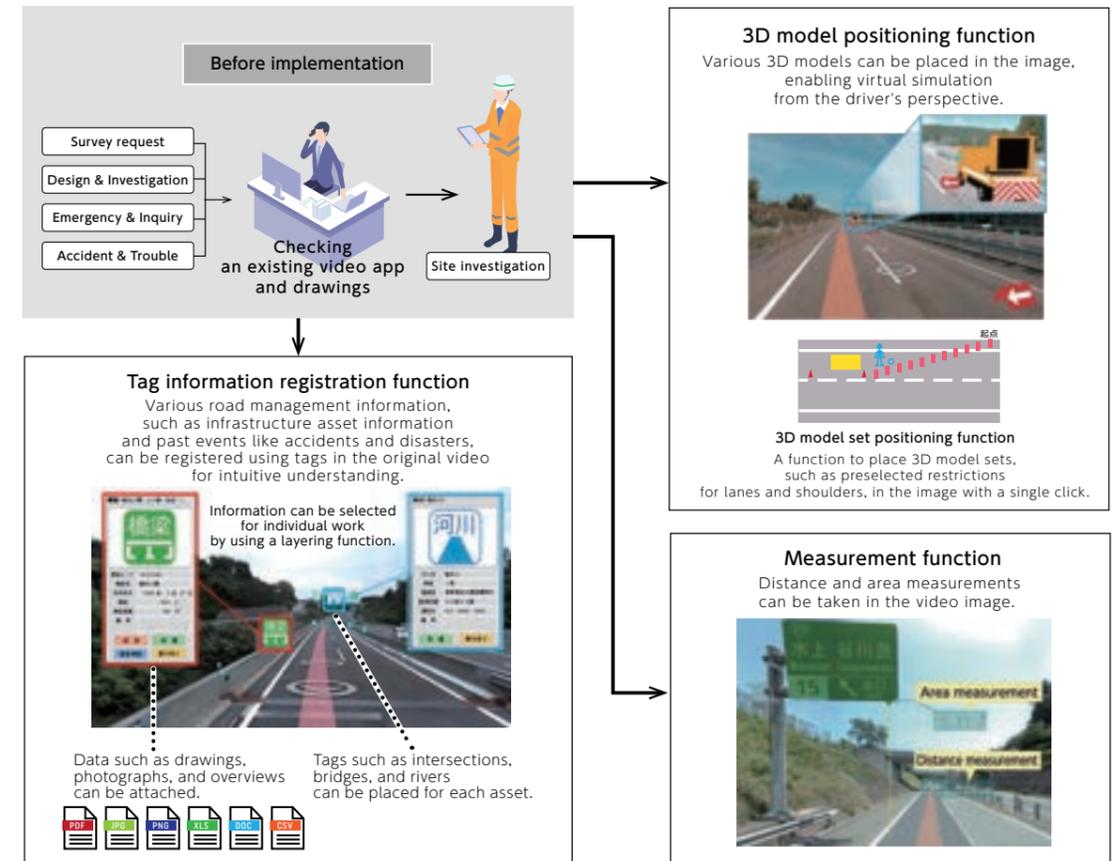


[Examples of Drone Inspection Applications]

The inside of viaducts and other areas that are difficult for humans to visually inspect in close proximity are inspected with camera drones flying in a non-GNSS environment with an obstacle avoidance function.

[Smooth Road Operation With the Use of 360-Degree Surround Road Image]

Omnidirectional road images are used to grasp local road conditions quickly. Specifically, we can confirm a structure and its size in a picture, and pre-disaster site conditions can be checked for prompt response during a disaster. In addition, the name and contact information of an administrator of a structure intersected with expressway and past disaster information can be registered as tags in the image, leading to smooth road operation. Various 3D models, including equipment and other items used during lane restrictions, can be placed in the image to simulate the site condition from the driver's view, contributing to improved safety of on-site work.



[Improving Road Operation Efficiency with the Use of Business Intelligence (BI) Tools]

BI tools for civil engineering inspections are standard in our monthly maintenance planning meetings. Visualizing a vast amount of inspection data using various types of aggregate graphs has led to the prompt formulation of repair plans and the improved efficiency of road operation.

In addition, we promote the use of BI tools in the facilities field using the knowledge earned through the

introduction and utilization of BI in civil engineering. BI tools visualize the results of inspections and breakdowns accumulated in the system to formulate restoration strategies and repair plans. Trends and specific values of electricity and water consumption values can be easily identified, contributing to the early detection and repair of water leakages and other problems. We will promote preventive maintenance based on trends in the number of breakdowns, aspiring to reduce them.



Ensuring Safety in Heavy Snowfalls and Enhancing Countermeasure Technologies

Many business areas operated by the NEXCO East Group are characterized by severe winter weather. In addition to securing safe traffic during extreme weather conditions such as heavy snowfalls, we strive to expand our current knowledge to future advancement to address the labor shortage due to the declining workforce.

Enhancing Safety Measures

[Technology Development]

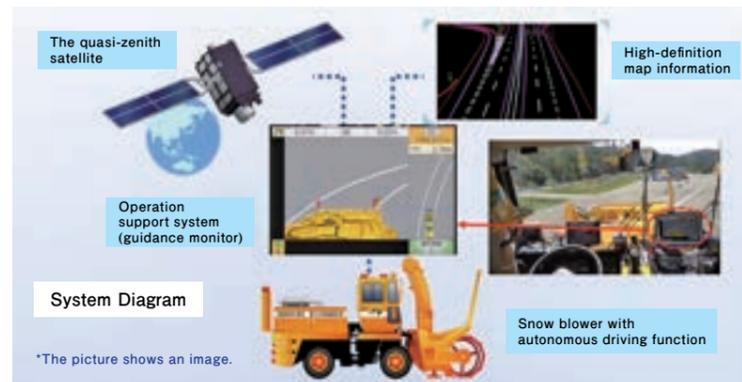
In order to advance snow and ice countermeasures, we are testing and researching techniques for preventing antifreeze from solidifying and removing ice patches from road surfaces, using a temperature and humidity test chamber (a device that can reproduce a winter condition by controlling temperature and humidity) and an accelerated corrosion testing device.



Testing solidification of antifreeze using a temperature and humidity test chamber

[Advanced/Autonomous Snow and Ice Control Operation System "ASNOS"]

We have been developing "autonomous driving"^{*1} and "automation of chute (a cylindrical device to blow snow off the road) operation"^{*2} by utilizing the quasi-zenith satellite system "Michibiki" to address the shortage of skilled operators due to an aging and declining workforce and to reduce labor and improve efficiency. We successfully conducted tests and verified the autonomous driving and automated chute operation in FY2022.



[Automation of Snow Plow Operation]

The snow plow trucks use a "centralized operator system"^{*3} to automate the operation of the antifreeze spray and the electric display panel at the vehicle's rear. Currently, we are working to develop technology to allow plow blades to go up and down automatically in required areas such as bridge joints.



Testing automatic control (vertical movement) of a plow blade. A virtual bridge joint (red framed area in the figure) is set up in a test field to automatically test the plow blade moving up and down at the virtual joint.



Test run of a snow blower with autonomous driving function

Testing automated operation of a chute (Top: Normal position / Bottom: Avoiding signs)



Normal chute position



Chute automatically avoiding a sign

*1 A vehicle automatically drives and steers without a driver touching the steering wheel or accelerator.

*2 Automatic control of the chute angle and direction according to signs and snow poles on the road shoulders.

*3 A snow removal support system developed in 2018 combining GPS information, an antifreeze distribution device, and an electric display at the vehicle's rear to automate these devices based on the road structure.

Building Environmentally Friendly Facilities to Reduce Greenhouse Gas Emissions

Reducing greenhouse gas emissions is a global challenge. NEXCO East Group strives to reduce CO₂ emissions not only through energy conservation measures but also through energy recycling, including the following: Recycling plant resources (biomass) such as grass cuttings, tree clippings, and prunings generated on expressways and installing solar power generators at interchanges, service areas, and parking areas (SAs/PAs).

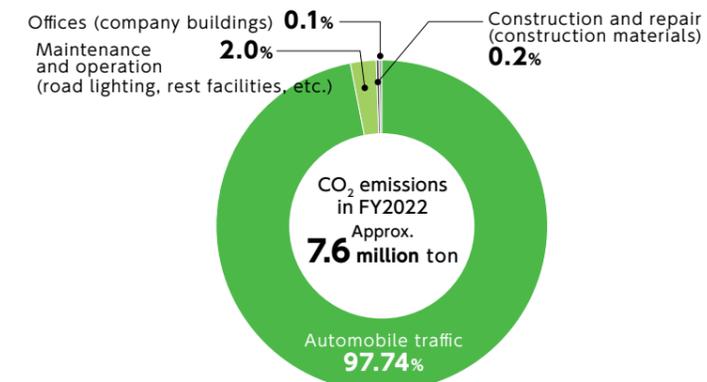
In addition, we are working to improve the convenience of electric vehicles, which emit less CO₂ than gasoline vehicles, by installing fast chargers at SAs and PAs.

Status of CO₂ Emissions within the Business Section

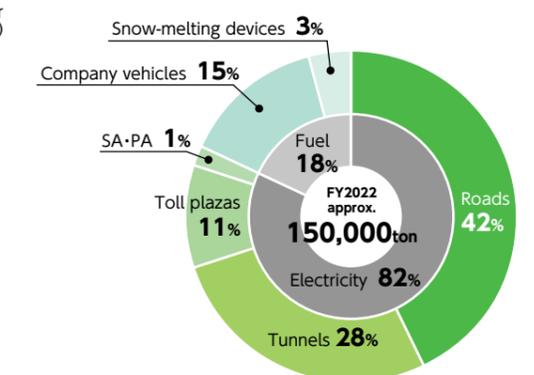
In FY2022, we estimate the total CO₂ emissions from the entire expressway business section under our management to be approximately 7.6 million tons. Our customers' vehicle traffic generates 97.7% of the total, and the remaining 2.3% comes from our business activities. Of this 2.3%, nearly 90% is CO₂ emissions associated with road lighting and the operation of rest facilities etc.. We estimate that the CO₂ emissions of our business in FY2022 will be approximately 150,000 tons. It indicates a reduction of 62,000 tons from FY2013, the base year of the government's plan for global warming countermeasures.

We also strive to reduce office energy consumption by implementing Cool Biz and Warm Biz programs, turning off lights during breaks, and implementing electric vehicles to reduce CO₂ emissions from the office section, such as company buildings.

Breakdown of CO₂ Emissions Related to Business Section

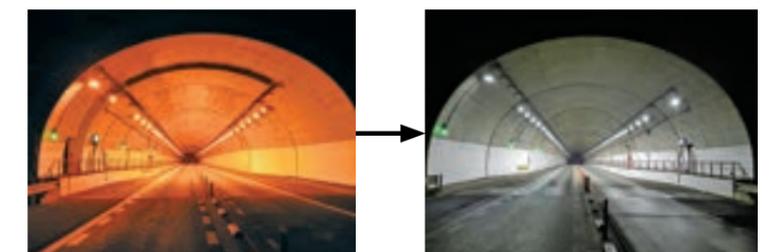


Breakdown of CO₂ Emissions Related to Maintenance and Management



Switching Tunnel Lighting to LED

We are successfully improving the visibility inside the tunnels as well as saving energy by switching the tunnel lighting fixtures from conventional "high-pressure sodium lamps" to energy-efficient lighting such as "LED lamps." We have installed LED lamps in 353 tunnels so far, and 62 more locations were added to the list in FY2022. It is estimated that the amount of electricity saved by switching to LED lamps so far is about 40 million kWh per year, reducing 22,000 tons of CO₂ per year. We are also working on a further reduction in energy consumption by installing LED lamps for roadway lighting.



High-pressure sodium lamp

LED lamp

Green Recycling

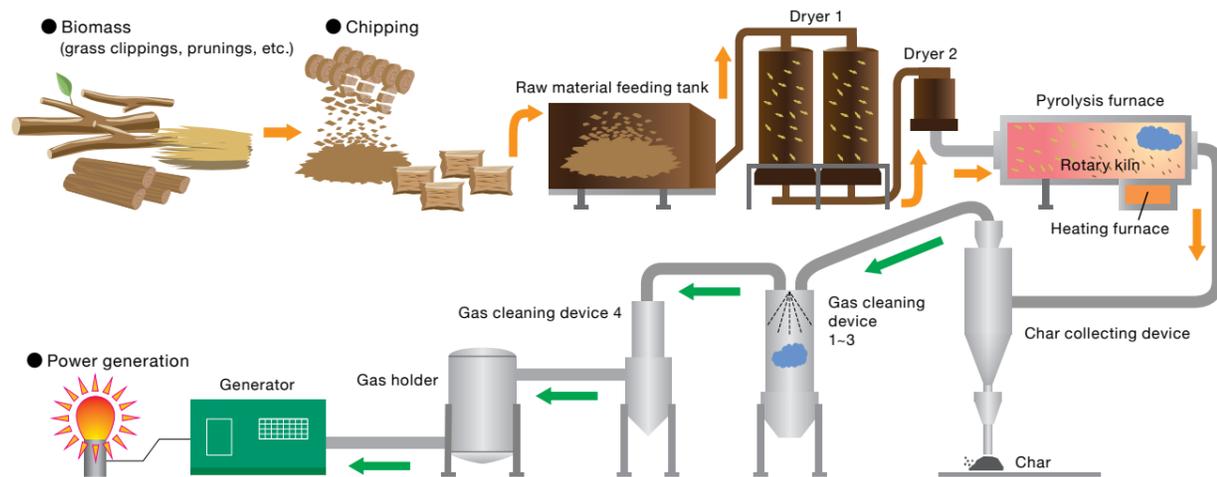
[Development of Biomass Gasification Power Generation Technology]

The Tomioka Biomass Gasification Power Plant heats mixed plant materials, such as grass, tree clippings, and prunings produced during expressway maintenance, in a pyrolysis furnace to generate gas. The gas is then used to generate electricity.

This process creates carbon (charcoal) as residue since the biomass is gasified instead of directly burned. These charcoals are also used as soil enhancers.



Tomioka Biomass Gasification Power Generation



[Composting Plant Materials]

Tree pruning and mowing generated approximately 83,000 m³ of plant materials in FY2022.

Approximately 90% of these materials are utilized effectively as "Green Recycling" by being processed at the Tomioka Biomass Gasification Power Plant, reused internally as compost, and utilized externally as compost, wood chips, and biofuel.

Green Recycling (Composting)



Mowing

Compost production



On-site use

Improving Convenience for Electric Vehicles

[Installation of Fast Chargers for the Shift to Electric Vehicles (EV Shift)]

We have been installing fast chargers for electric vehicles (EVs) at SAs/PAs. We will continue to install fast chargers in areas where they have not yet been established and upgrade existing chargers to higher-performance ones that simultaneously charge multiple EVs. We commit ourselves to improving convenience for customers driving EVs and PHEVs (Plug-in Hybrid Electric Vehicles) on our expressways.



Converting to Environmentally Friendly Facilities

◎ "eco Inter (interchange)" and "eco Area (rest area)"

The proactive installation of energy-saving electrical equipment is a norm for ICs, SAs, and PAs, and we are promoting ways to improve air conditioning efficiency and creating "environmentally-friendly" facilities with renewable energy such as solar power generation.

[An Example of "eco Inter"]

Thermal barrier coating
A folded-plate roof painted with a thermal barrier coating.

Solar power
A 5 kw solar power system.

Insulation
Exterior walls and ceilings are insulated with fiberglass. Overhangs are sprayed with polyurethane foam.

Information boards
LED display units.

Signal lights
LED signal light bulbs.

Gate lighting
LED floodlights.

Overhang materials
Lightweight overhangs with aluminum panels. Fall prevention measures taken for both backing and finishing materials.

Roadway lighting
LED floodlights.

Double-paned windows
Standard use of double-paned windows.

Indoor lighting
Standard use of LED lighting.

Water heating system
Electric water heater (EcoCute).

[An Example of "eco Area"]

Solar power
Used for washroom lighting, etc. (5 kw solar power system).



Thermal barrier coating
The thermal barrier coating is applied to the roof of the electrical room and cleaning staff station to control the indoor temperature increase in summer.

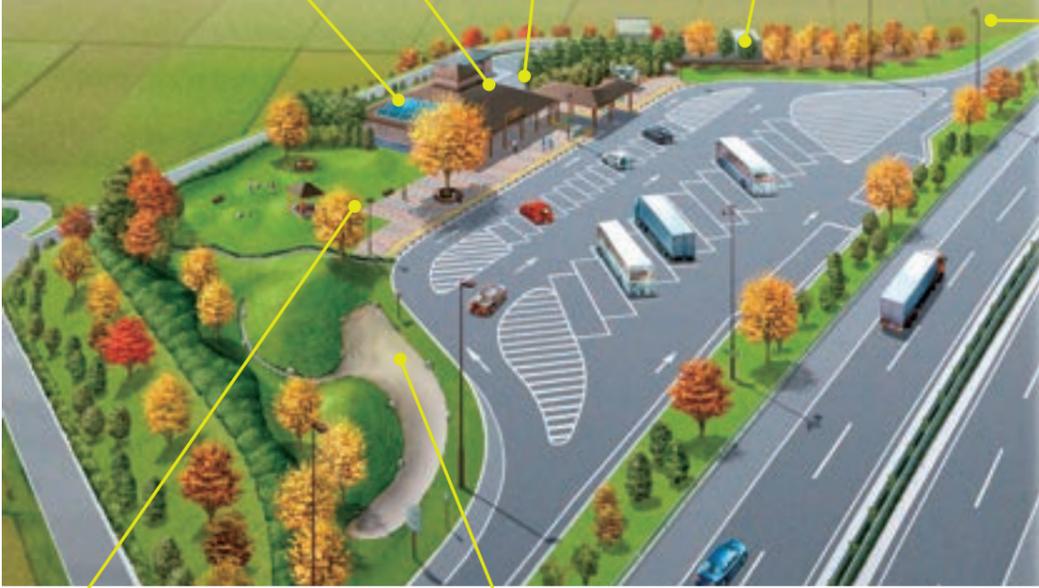


Eco toilets
High-efficiency toilets to conserve water.



Green walls
Installed green walls on the septic tank to mitigate the heat island phenomenon.





Eco garden lights
Long-lasting highly-efficient, energy-saving electrodeless lamps.



Eco parking lot lighting system
Switched to highly efficient ceramic metal halide lamps.



Eco lighting
Use LED lighting and other high-efficiency lamps.



Water-retaining interlocking system
Adopted water-retaining blocks to control the temperature increase of sidewalks.



Protecting Life and Natural Environment Along Expressways for a Sustainable Society

Minimizing the impact on the living and natural environment along expressways is vital for coexisting with the environment in the expressway business. We continue to strive to build expressway infrastructure with minimal environmental impact to create a sustainable society.

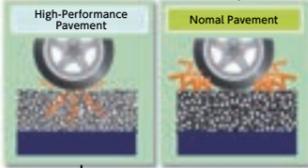
Preserving Life Along Expressways

[Noise Countermeasures and Landscape Ecological Risk Countermeasures]

We have been taking measures, such as installing noise barriers to reduce noise and creating ecological buffer zones to minimize the impact on the living environment along the expressways. The total length of installation is approximately 1,080 km.

High-Performance Pavement
Permeable porous pavement mixture is used in the surface and base layers of the asphalt pavement so that rainwater can be quickly drained from the road surface. This porous surface allows air to escape quickly, reducing driving noise by about 3 decibels.

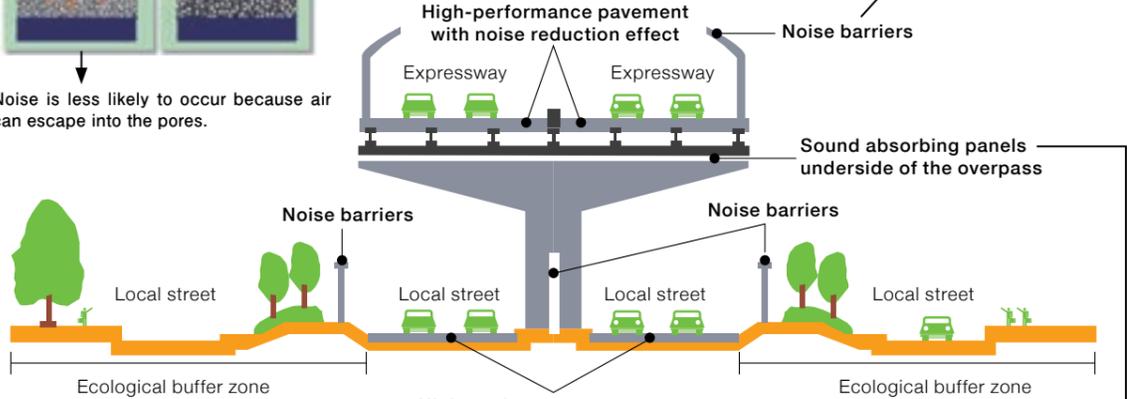
There is no escape route for air trapped between the tire grooves and the pavement surface, generating noise easily.



Noise is less likely to occur because air can escape into the pores.

Noise Barriers
Noise Barriers directly block noise from the source and reduce it by sound diffraction.





High-performance pavement with noise reduction effect



Sound Absorbing Panels Underside of the Overpass
Sound absorbing panels installed underside of the overpass reduce sound emitted from the overpass and prevent vehicle noise traveling under the overpass from being reflected and diffused.



Ecological Buffer Zones
Ecological Buffer Zones provide a 10-20 meter-wide environmental zone outside the roadway. These buffer zones are created to reduce the impact of noise, vibration, and exhaust gases and promote the road's beautification and greening by planting trees and installing noise barriers, sidewalks, and bicycle paths.



Number of Fast Chargers

Number of fast chargers installed

183/155 areas

Number of "eco Inter (interchanges)" and "eco Area (rest areas)"

"eco Inter"

50

"eco Area"

22

Spreading Japanese Technology and Knowledge Overseas

NEXCO East Group contributes to the development of other countries by utilizing the expressway technology and knowledge accumulated over many years. E-NEXCO INDIA PRIVATE LIMITED (ENI) supports optimal repair plans by conducting road surface condition survey services on national highways in India with rapid economic growth.



Business Development Overseas

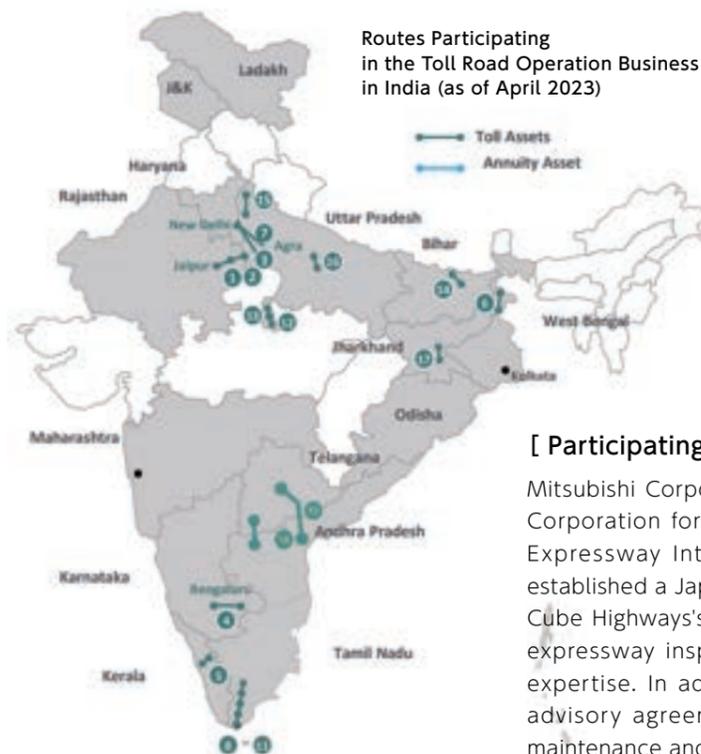
[Implementing Road Surface Condition Survey Services in India]

E-NEXCO INDIA PRIVATE LIMITED (ENI), an overseas subsidiary, was established in November 2019, and road surface condition survey services using "E-NEXCO Eye" have been provided since December 2021.

"E-NEXCO Eye" can measure road surface cracks, rutting, and IRI (international roughness index) using lasers and cameras and can acquire data while driving at speeds up to 100 km/h at night. The system contributes to optimal repair planning and creating safe road spaces in India, where the need for advanced management and operation of expressways is increasing.



Road inspection by Road surface condition survey vehicle, E-NEXCO Eye



ENI currently operates with two Japanese expatriates and three local staffs

[Participating in Toll Road Operation Business in India]

Mitsubishi Corporation, Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN), Japan Expressway International (JEXWAY), and NEXCO East jointly established a Japanese infrastructure consortium. We participate in Cube Highways's (Cube) toll road operation business. We provide expressway inspection services as a company with expressway expertise. In addition, Cube and NEXCO East have a technical advisory agreement for rest facility business and overall road maintenance and management.

Participating in Toll Road Operation Business in India

[Consultation]

We provide consulting services to developing countries using the technologies and knowledge we have accumulated over the years in the expressway business.

As technical cooperation with local ministries and agencies, we provide technical assistance for capacity-building projects to develop resilient mountain roads in India. We also offer technical support for the operation and maintenance of national highways in Bangladesh. In addition, we conduct field surveys related to the operation and maintenance of ITS equipment and facilities as an expressway company.



Providing technical instruction in India

[International Cooperation]

We dispatch technical experts about expressway policy, planning, investigation, construction, maintenance, and management through the Japan International Cooperation Agency (JICA). We also accept engineers from developing countries and provide training at the request of the Ministry of Land, Infrastructure, Transport and Tourism and JICA.



Meeting between JICA experts and related organizations

Interacting with various countries and engineers

[Participating in International Conferences and Seminars]

We participate in various international conferences and seminars to keep abreast of global expressway business trends and to introduce our technology and knowledge to a wide range of people.

[Technology Exchange]

We visit an Austrian expressway company, ASFINAG, with a technical cooperation agreement and other road-related agencies in various countries to visit sites and engage in dialogue in road technology.



Participating in ITS World Congress (Los Angeles)



Engaging in dialogue with ASFINAG head office

04 For Our Society and Employees

High-Quality Expressway "Cornerstones" and Diverse Human Resource Development

NEXCO East Group considers human resources as a substantial capital (human assets) to support our business. In addition to enhancing our existing training programs, we will create the "NEXCO East Human Resources Development Plan (tentative name)" by the end of FY2023 to maximize the added value of our employees.

Improving Technical and Management Skills

[Training to Cultivate Engineers]

We nurture engineers by providing them with training based on their years of work experience to acquire technical and management skills.

NEXCO East Technology Center for Development and Education (opened in April 2020) is equipped with training facilities, including VR and 3D, which enable trainees to experience and feel the mechanisms of structural deterioration. It also allows simulated on-site experience using materials removed from the sites, such as bridge deck slabs, pavements, and soil structures.



Inside a display room at NEXCO East Technology Center for Development and Education



Experiences with 3D movies



Pavement sections and cross-sectional specimens that were removed from the sites

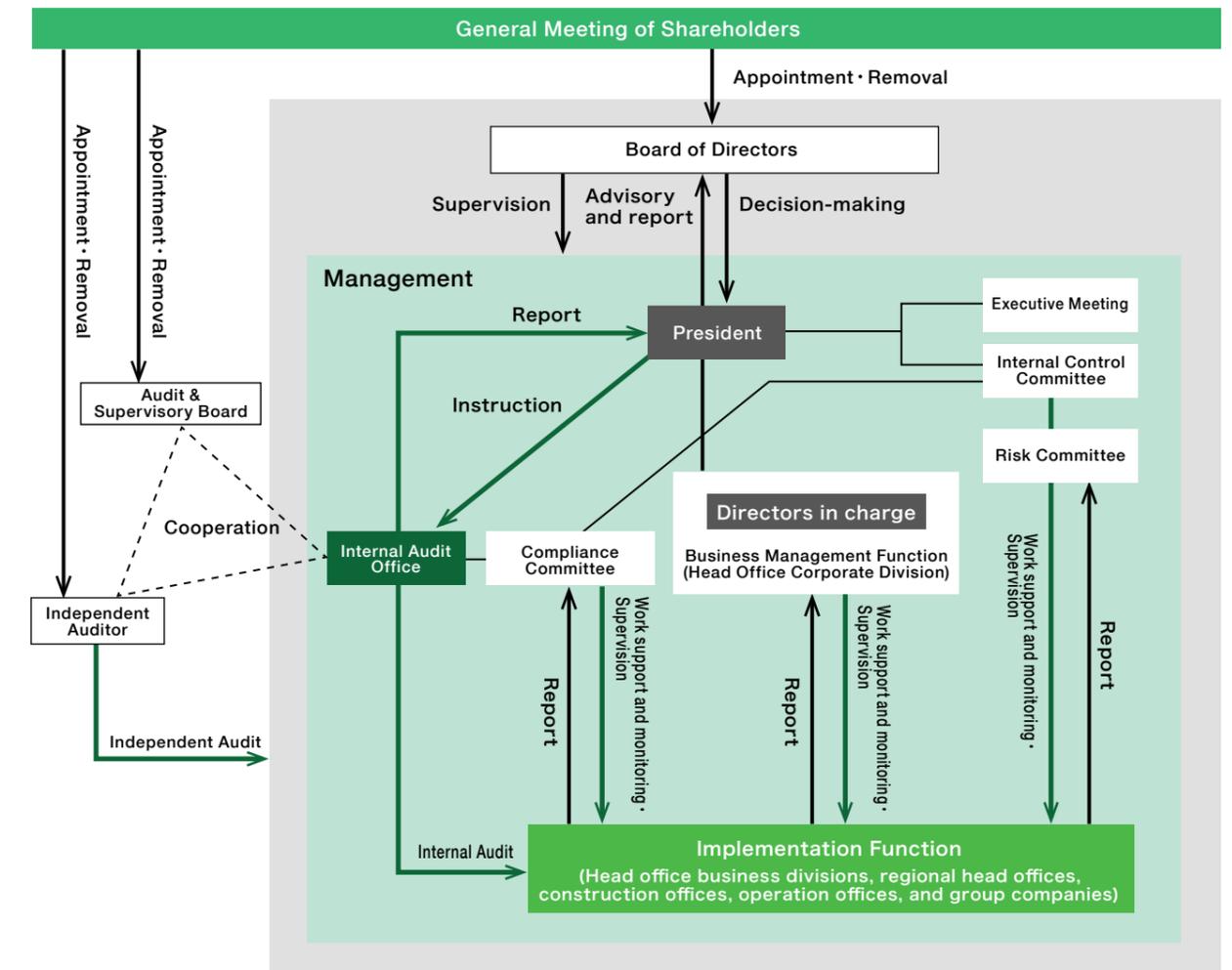


Training (simulated on-site experience)

Establishing a Governance System to Promote Sound Management

NEXCO East Group is developing its business while identifying enhancing corporate governance as one of its top priorities. With customers as our priority, we also emphasize speedy and appropriate decision-making in business execution and efficient management to continuously provide safe, secure, comfortable, and convenient expressway space.

[e-NEXCO Group Corporate Governance System]



Company Overview / List of Executives

Company Overview

Company Name	East Nippon Expressway Company Limited		
Location	Shin-Kasumigaseki Building, 3-3-2, Kasumigaseki, Chiyoda-ku, Tokyo 100-8979 TEL:03-3506-0111 (Service Area Business Division) MOMENTO SHIODOME 6th floor, 2-3-17, Higashi-shimbashi, Minato-ku, Tokyo 105-0021		
Representative	Fumihiko Yuki, President and CEO	Capital Stock	525 billion yen
Founded	October 1, 2005	Number of Employees	2,516 (as of August 1, 2023. Excluding outgoing external secondees and including incoming external secondees)
Business Objectives	To contribute to the sound development of the domestic economy and improvement of people's lives by facilitating smooth road traffic through effective construction, renovation, maintenance, repair, and other operation of expressways.		
Business Description	Operation and construction business of expressways, service area business, parking lot business, underpass utilization business, truck terminal business, credit card business, online business, hotel business, overseas business, etc.		

Hokkaido Regional Head Office	5-12-30, Oyachinishi, Atsubetsu-ku, Sapporo 004-8512	TEL:011-896-5211
Tohoku Regional Head Office:	JR Sendai East Gate Building, 1-1-1, Tsutsujigaoka, Miyagino-ku, Sendai 983-8477	TEL:022-395-4002
Kanto Regional Head Office	Omiya JP Building, 1-11-20, Sakuragi-cho, Omiya-ku, Saitama 330-0854	TEL:048-631-0001
Niigata Regional Head Office	Niigata PLAKA3, 1-1, Tenjin, Chuo-ku, Niigata 950-0917	TEL:025-241-5111



List of Executives

Managing Directors



Kunie Okamoto
Chair of the Board



Fumuhiko Yuki
President and
Chief Executive Officer



Tomomichi Takahashi
Representative Director,
Managing Executive Officer, and
Director of Construction Division



Satoshi Iseda
Managing Director,
Senior Executive Officer, and
Director of Corporate Strategy Division



Toru Yoshimine
Managing Director,
Senior Executive Officer, and
Director of Technology &
International Division



Shigeki Yagi
Managing Director,
Senior Executive Officer, and
Director of Operation Division



Yutaka Shiina
Managing Director,
Senior Executive Officer, and
Director of General Affairs &
Accounting Division



Akiyo Miyakawa
Managing Director

Audit & Supervisory Board Members



Ryuji Sato
Audit &
supervisory Board Member
(full-time)



Yasunori Kuroda
Audit &
supervisory Board Member
(full-time)



Hironori Kawauchi
Audit &
supervisory Board Member
(full-time)



Noriko Yagasaki
Audit &
supervisory Board Member

Executive Officers



Hideo Yoshimi
Senior Executive Officer and
Director of Service Area &
New Business Division

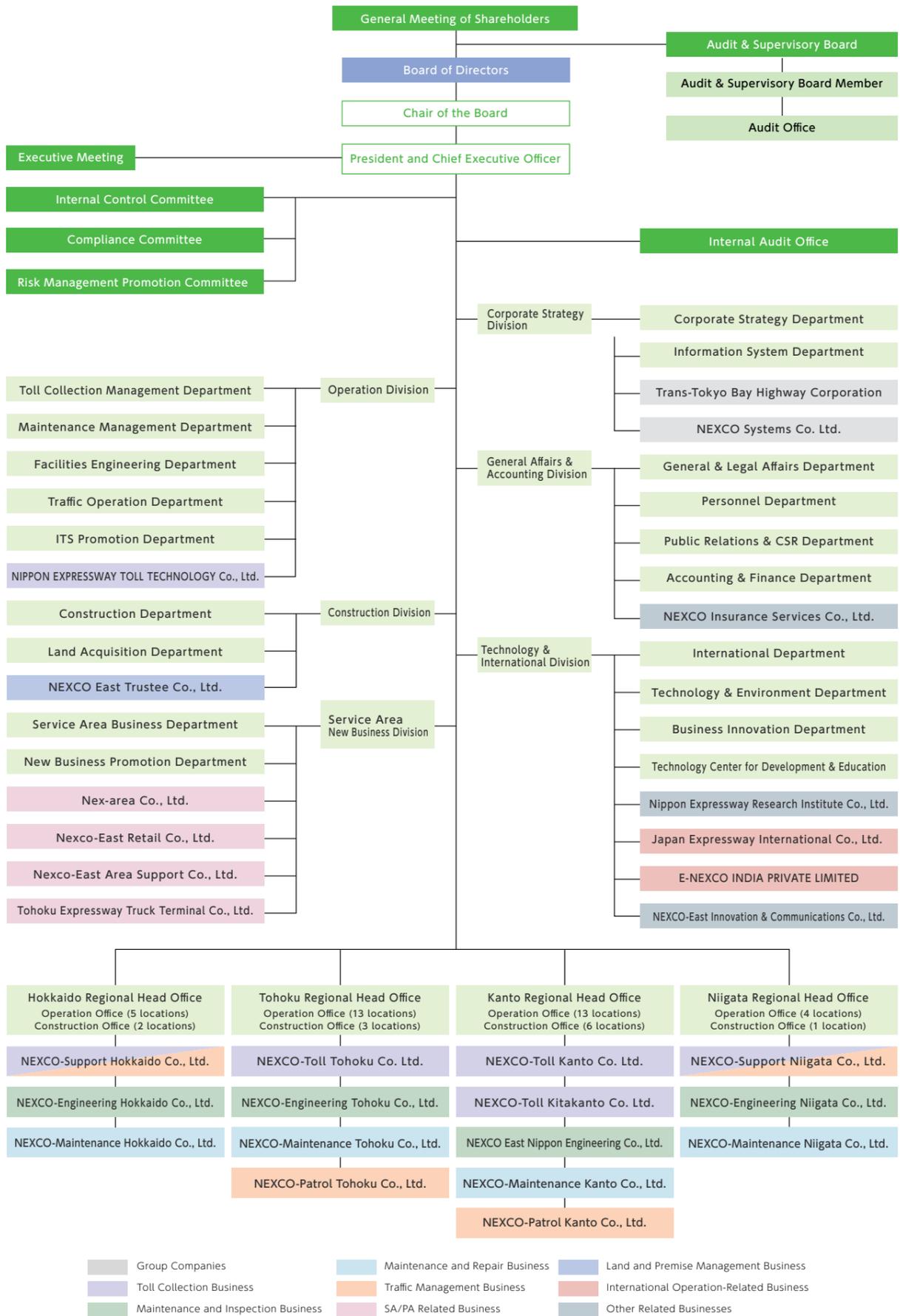
Executive Officers

Hitoshi Sakuma	Deputy Director of Operation Division and Director of Maintenance Management Department
Yoshimasa Kumano	Deputy Director of Service Area & New Business Division
Toshihiro Matsuzaka	Director of Corporate Strategy Department, Corporate Strategy Division
Toshiaki Harashima	Director of Personnel Department, General Affairs & Accounting Division
Takehiko Sato	Director of Accounting & Finance Department, General Affairs & Accounting Division
Keiichi Hori	Director General of Hokkaido Regional Head Office
Hiroyuki Tanaka	Director General of Tohoku Regional Head Office
Yoichi Chida	Director General of Kanto Regional Head Office
Hideo Umeki	Director General of Niigata Regional Head Office

(As of July 1, 2023)

* Kunie Okamoto (Chair of the Board) and Akiyo Miyakawa (Managing Director) are part-time outside directors.
* Yasunori Kuroda (Auditor), Hironori Kawauchi (Auditor) and Noriko Yagasaki (Auditor) are outside auditors.

Organizational Chart



[Cover Photo]
 “ Restoration of the Natural Environment and Expressways ”



The photograph on the cover was taken at the Akiruno IC (opened in March 2005) on the Metropolitan Inter-City Expressway (Ken-O Expressway) operated by NEXCO East Group. We selected this photo because the contrast between the blue sky and lush greenery expresses to our stakeholders that “our expressways are in harmony with the natural environment.”

A biotope (living and growing space for plants and animals) was built and maintained along with the construction of the Akiruno IC in order to avoid or reduce the impact of expressway construction on the natural environment.

Now, about 18 years after the opening of the Akiruno IC, approximately 300 plant species and 200 animal species, such as birds, amphibians, reptiles, insects, and aquatic organisms, have been confirmed in the biotope, and the restoration of the natural environment is progressing.

We are here 24 hours a day, seven days a week to answer any questions or concerns you may have.
NEXCO East Customer Relations Center
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We are here 24 hours a day, seven days a week, to answer any questions or concerns you may have. Please feel free to contact us about expressway tolls, ETC discounts, traffic information, etc.