

In a society facing a declining population and a series of natural disasters, how to revitalize local lines and to ensure safe transportation



**JREU
National Office**

About JR-East Company



About 48,000 employees

Main Business:

○Transportation Business



○Life Service Business



○IT-Suica business



Profit ratio of JR-East

- Transportation Business

- Life Service Business
- IT-Suica Business



70%



30%

Due to declining population and increasing off-site working & schooling, the company will lose many commuters thus is changing the company's profit ratio



50%



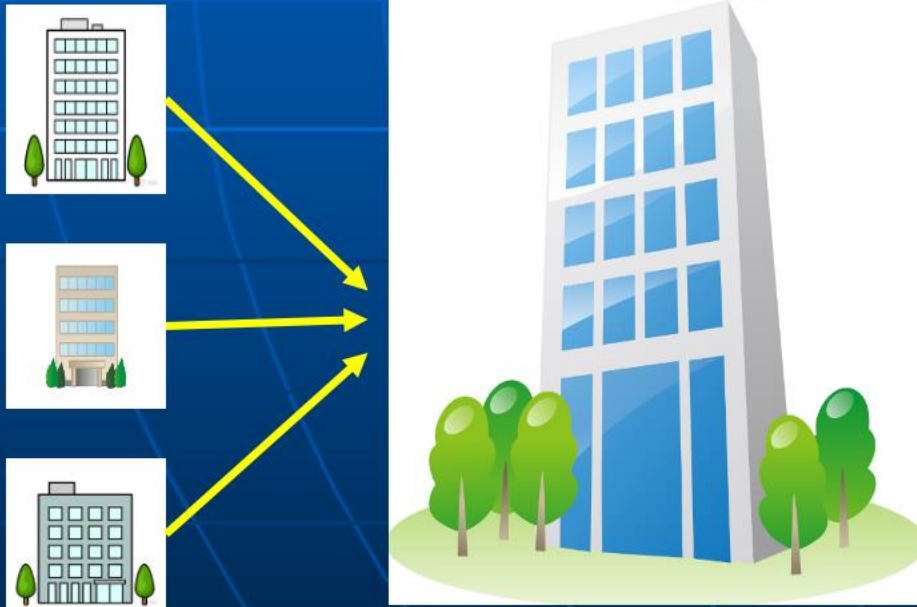
50%

Efficient management of Transportation Business

Driver-only operation, unmanned station, outsourcing of station, vehicle inspection and maintenance work are promoted:

In the future, more...

Workplace integration



Task integration



Rural and Residential lines as problems

3 categories of JR-East transportation



Metropolitan
transportation



Wide-range high-speed
transportation by Shinkansen



Rural and residential
transportation

**Rural and residential lines are
loss-making lines and big problems**

Current State of Rural lines



○JR-East oversaw many rural lines, mainly in the Northeast region, but the management was expected to be sufficient because the company would also oversee transportation in metropolitan areas centered on Tokyo.

○From its inauguration, through full privatization in June 2002, until 2019 when it was affected by the COVID-19, the company continued to achieve record-high profits, and its management has progressed smoothly.

○While management went smooth, the number of users of rural lines including commuters for work and school are significantly declined because of the declining country population and depopulation of rural areas.

○The spread of the COVID-19 infection has led to a decline of large number of tourists from Japan and overseas.

Current State of Rural lines

[Agenda 1. Decreasing number of users]

○Due to the declining population and refraining from going out due to the COVID-19, the number of railway users has decreased significantly. In February 2022, Ministry of Land, Infrastructure, Transport and Tourism held an expert review meeting to consider restructuring the network particularly rural lines. Experts include university professors and television station commentators. In addition, as observers, the Railway Association, Third Sector Railway Council, JR companies, Bus Association, Taxi Federation, Japanese Council of Transport Workers' Unions, National Governors' Association, National Association of Mayors, National Association of Towns and Villages, Ministry of Land, Infrastructure, Transport and Tourism.

○The panel of experts held several meetings and announced its results in July 2022. At the same time, JR-East and JR-West also announced the income and expenditure of rural lines with few users.

Current State of Rural lines

[Agenda 1. Decreasing number of users]

○ Characteristics of the direction indicated by the Advisory Council

(1) The transport density during normal times is less than 1,000 people/day, and the number of people transported per hour during peak times is less than 500 people.

Wide-area coordination is necessary for consensus building among stakeholders due to circumstances such as straddling multiple economic spheres and living spheres. As a guideline, the national government will establish a Specific Railway Section Reconstruction Council together with railway operators and local governments along the railway line, and discuss the reconstruction of regional transportation, including conversion to busses.

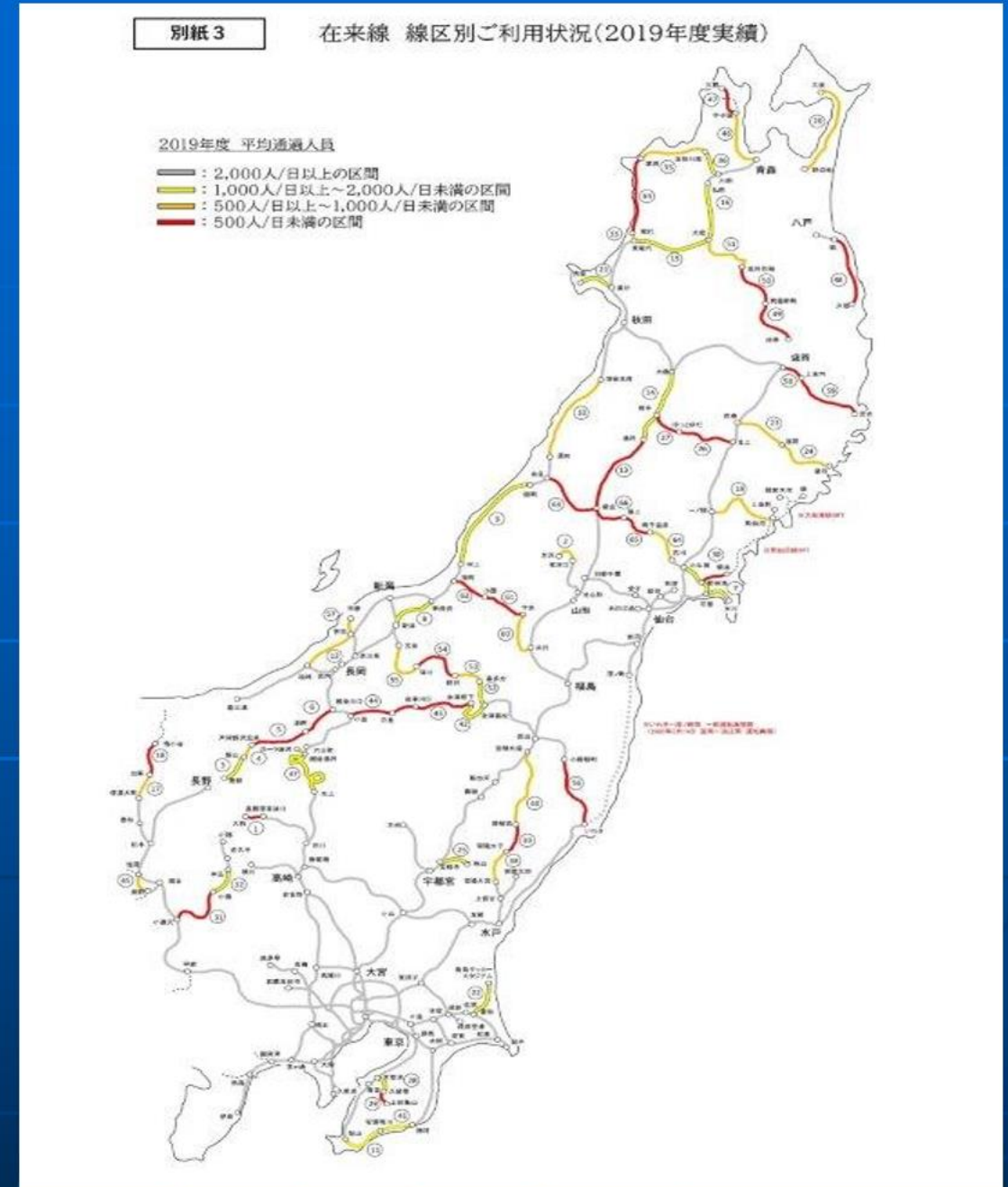
(2) The Specific Railway Section Restructuring Council will determine measures within three years at the longest, including when conducting a demonstration project, upon agreement between local governments along the railway lines and railway operators.

Current State of Rural lines

【Agenda 1. Cont.】

○JR-East made public about the income and expenditure of rural lines with few users after the Advisory Council. It was revealed that 35 lines and 66 sections out of 69 lines had less than 2,000 passengers per day which is a transportation density that makes it difficult to maintain highly convenient and sustainable services through management efforts by railway operators alone.

○ JR-East also announced the current status of rural transportation lines in February 2022. If we apply the transport density of less than 1,000 people per day, which is one of the criteria for establishing a Specific Railway Section Reconstruction Council, there are 19 railway sections.



Current State of Rural lines

[Agenda 2. Handling of natural disasters]

○ Another major issue facing regional lines is how to respond to natural disasters that frequently occur because of global warming.

2011 Great East Japan Earthquake



2010 Train derailment due to a landslide on the Iwaizumi Line. Discontinued in 2014



Derailment by Tsunami at Yamada line



Tsunami damaged along Oofunato line



Yamada Line between Miyako and Kamaishi switches to the 3rd sector

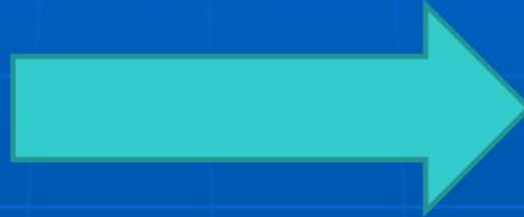


Oofunato Line Between Sakari and Kesenuma, now use the BRT

JR-East has handled problems



Efficient management
creates



Negative spiral



JR-East has handled problems

In the Great East Japan Earthquake that occurred in 2011, many tracks were damaged by the tsunami. But **it was possible to handle the situation by drivers and conductors on board** and as the result there were no crew or passengers being injured.



Great East Japan Earthquake

When a train ran on the Yamada Line due to sediment runoff because of rain, and when a train ran on the Iwaizumi Line in 2010, in both cases passengers were safely evacuated through **the cooperative system of drivers and conductors**, even though both were in mountainous areas.



Iwaizumi line



Yamada line

However, the Hachinohe Line, has currently started one-man operation and how to handle the natural disasters becomes the issue.

JR-East has handled problems

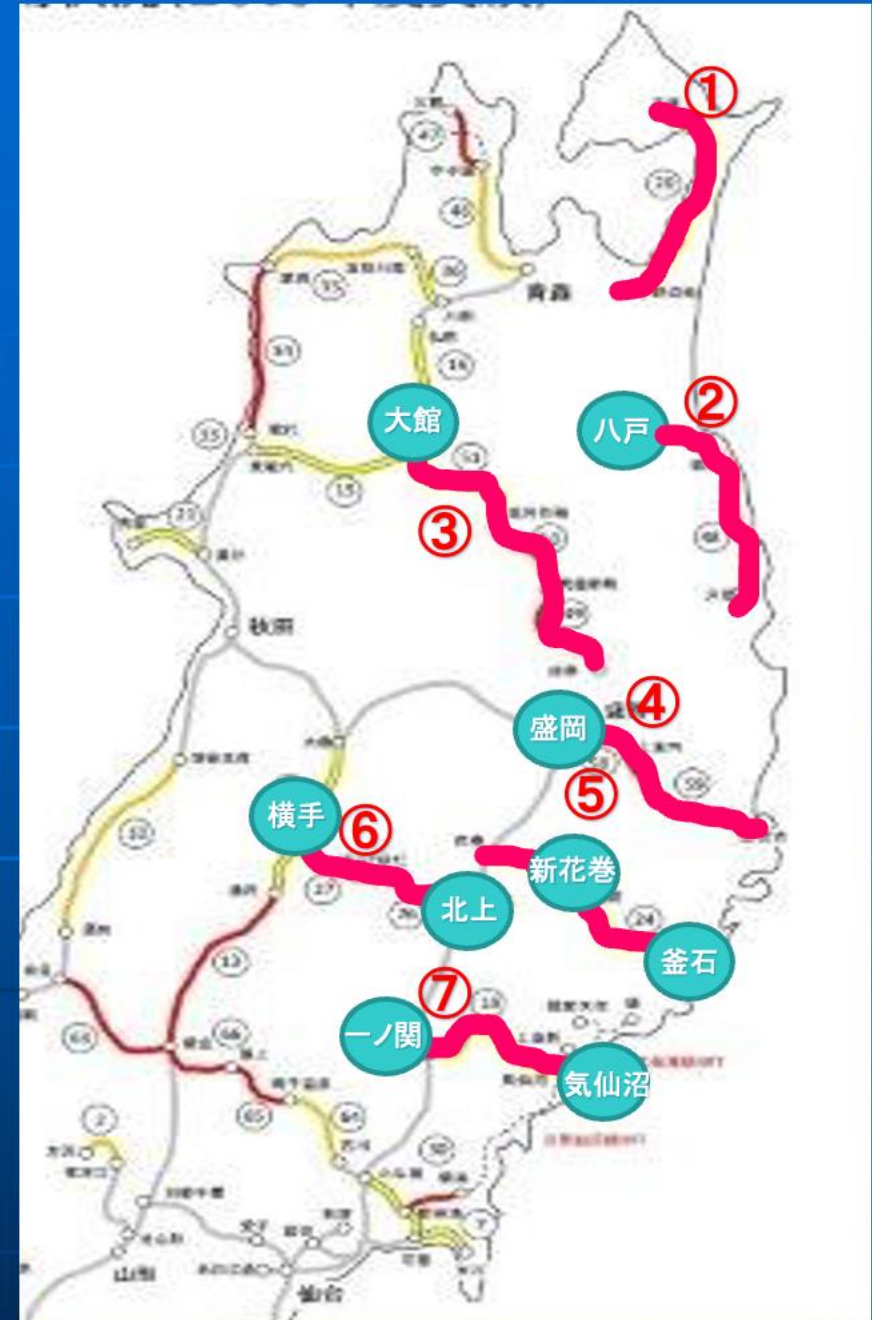
【JR-East Morioka branch area】

Station with
JR staff ●

- ①Oominato58. 4km Driver only No JR staff
- ②Hachinohe.....64. 9km Driver only Tsunami damaged area No JR staff other than Hachinohe station
- ③Hanawa.....106. 9km Driver and Conductor Mountain area No JR staff other than Oodate station
- ④Yamada.....102. 1km Driver and Conductor Mountain area No JR staff other than Morioka station
- ⑤Kamaishi.....90. 2km Driver and Conductor Mountain area No JR staff other than Shin Hanamaki and Kamaishi stations,
- ⑥Kitagami.....61. 1km Driver only Mountain area No JR staff other than Yokota and Kitagami stations
- ⑦Oofunato.....62. 0km Driver only No JR staff other than Kesenuma and Ichinoseki stations

Efficient management led to stations becoming unmanned and outsourced, and the number of JR employees on each line decreased sharply.

Responding to natural disasters through efficient management is a major issue



We have secured the safety



Winding tracks



Because the Kamaishi Line has a steep gradient, use motorized passenger cars



Skidding and sliding occur during the fallen leaves and snowy seasons



- Knowing various curves, the speed limit of the gradient, etc. "Crews must be familiar with the railroad tracks."
- Under slipping and sliding caused by falling leaves, rain, and snow, accurate response is required

Since the operation of Rural lines requires advanced skills, safety has been ensured through technical capabilities and judgment based on experience.

But from now on



Concerned about a decline in safety awareness due to work integration

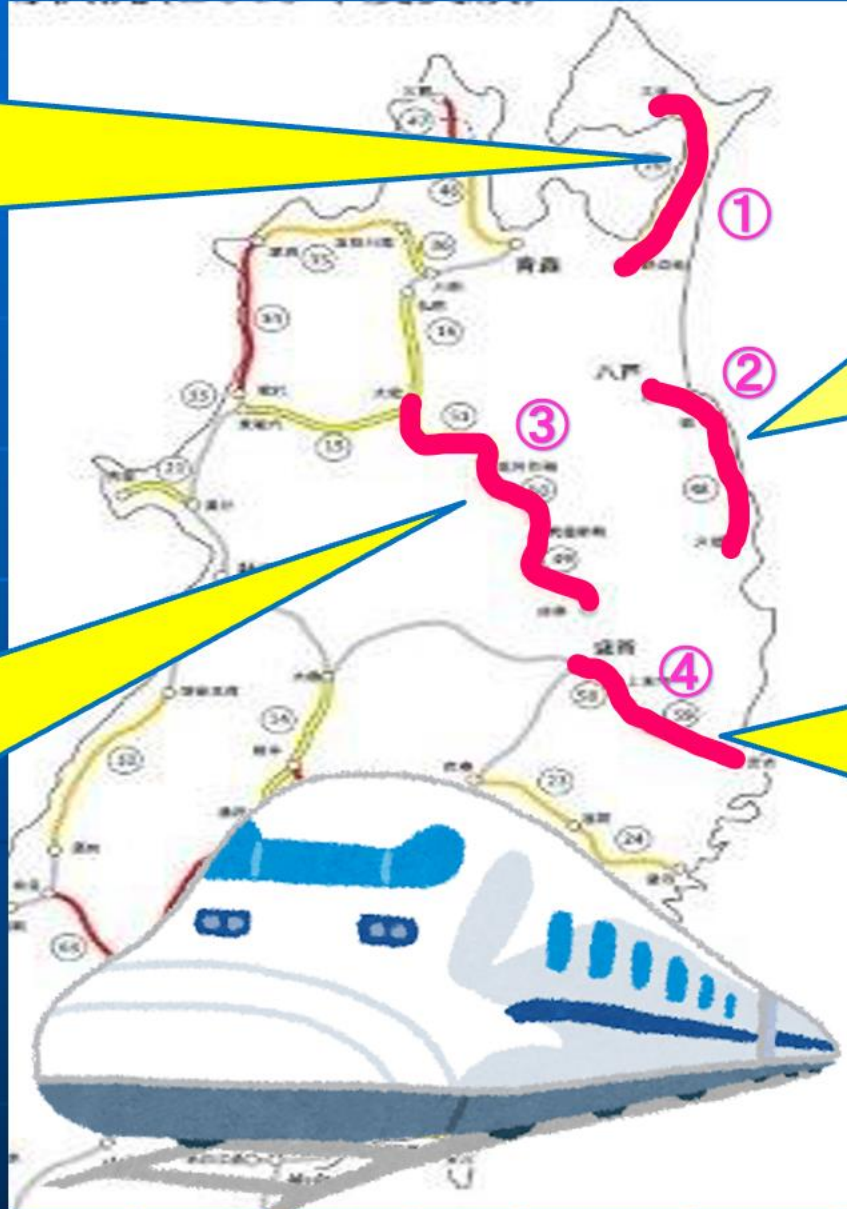
Attractiveness of Rural lines



① Ominato-line



③ Hanawa-line



② Hachinohe-line



④ Yamada-line

Attractiveness of Rural lines

【Gonou Line】



Some tourists travel to enjoy the scenery that can be seen because it is a Rural line.

The decline of local lines will lead to the decline of the region and will further advance the depopulated society.



Positioning of Rural Lines and Our Awareness of Problems

- In 1987, when JNR was split and privatized, many valuable fixed assets, including the area around the station, were inherited by JR companies, giving it an environment that enabled a solid financial foundation.
- It has been determined that unprofitable routes can be maintained by profit from Shinkansen, transportation in metropolitan areas, and related businesses.
- Even though the private company has inherited valuable fixed assets, the government that split and privatized the national railway has still its responsibility.
- It is important to consider that local railways are fixed assets created by the people's valuable taxes therefore abolition of the railways should not be easily considered.
- As a labor union, the abolition of local railways may lead to the loss of employment opportunities= a major problem.
- The disappearance of railways from the map will reduce the number of people visiting rural areas even more.

Positioning of Rural Lines and Our Awareness of Problems

[What must be taken as a base when considering the future of Rural lines]

○ Rural lines are fixed assets created by the people's precious tax money

○ Loved by locals and tourists

○ Leaving places to work in rural areas and revitalizing them

In a society with a declining population and a series of natural disasters, we will propose to revitalize local lines and ensure safe transportation

Recommendation

1. Indicate the railway sections that the government considers necessary among the target railway sections for which the national government will set up a Specific Railway Section Reconstruction Council together with railway operators and local governments along the railway lines by the Advisory Council.

[Basic recognition of railways by the Advisory Council]

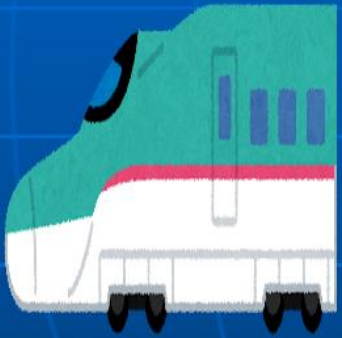
- (1) It supports the economic and industrial activities of the country as a mass transportation system.
- (2) It is attracting attention from the perspective of carbon neutrality.
- (3) Daily transportation such as commuting to work and school even in rural areas. Foundation of local economy such as tourism.

[Response to disasters, etc.]

After the Great East Japan Earthquake, fuel for cars could not be secured in the Northeast region, and even if supplies arrived, they could not be delivered to the affected areas for many days. Even if the railroad was damaged, JR Freight bypassed other railroads and transported fuel to save lives in the affected areas. A railway network is necessary to protect the people in the event of a disaster.

Recommendation (Cont.)

2. The national government cooperates with local governments and JR to set up a forum for discussion on increasing the number of users for the necessary railway sections indicated by the national government and contributes the necessary expenses for the maintenance and continuation of the railway sections.



Recommendation (Cont.)

3. When the Special Line Section Reconstruction Council chooses to separate the operation and infrastructure in order to keep the railway, the national government, not the local government, will contribute the expenses necessary for the maintenance and management of the facilities.

[Separation of the operation and infrastructure]

Railway company operates the train and manage crew, while tracks and facilities are owned and operated by another operation method. The idea is that the two businesses will own, manage, and share the cost of rail system to maintain and continue to exist.

If local governments are responsible for the maintenance and management of facilities due to the separation, it is assumed that they will not be able to contribute to the costs as the population is expected to decline significantly. Therefore, when leaving it by separating operation and infrastructure, it is necessary for the national government to contribute the expenses necessary for maintenance.

**Owned by JR
Operation &
management**



**Owned by
Municipality**



Recommendation (Cont.)

4. Along with JR, the national government and local governments will also work on disaster prevention in areas where rural lines are prone to natural disasters.

OJR takes responsibility for disaster prevention for JR facilities, such as improving the seismic resistance of Shinkansen viaducts. However, since the area where JR can operate is JR facilities and land so there is a limit to preventing impacts from outside the site, such as flooding, falling rocks, sediment inflow, and collisions with animals.

ORegarding railway business operations on railway lines where natural disasters are expected, it is not enough to just entrust the operator alone but in addition, the rules must be enforced such that the number of crew members required to guide passengers to evacuation, and rules such as the placement of employees that allow them to rush to the troubled site within one hour.

Recommendation (Cont.)

5. In order to develop crews who can respond to natural disasters, JR East will not integrate other jobs for three years, including the trainee period for driving duties. In addition, even after three years have passed, in order to prevent a decline in safety awareness and ensure safe transportation, do not allow other work to be done before being responsible for driving work.

○ On lines where natural disasters are expected, safety has been protected by the judgment and technical skills accumulated by the safety awareness and experience of the crew.

○ Safe transport must be maintained even as the integration of work progresses.

○ There is a need for a system that reliably trains crew members to ensure safe transportation, and a system that prevents distractions due to integration with other work.

Conclusion

35 years have passed since JNR was privatized. The environment surrounding railways is undergoing major changes, including a declining population and the frequent occurrence of natural disasters due to global warming. Currently, the Ministry of Land, Infrastructure, Transport and Tourism is considering rebuilding the local railway lines, but since the local lines are fixed assets created with taxpayers' money, as well as being loved and cherished by the residents and tourists, they will not only be entrusted to JR, but the government will also cooperate in maintaining. On the other hand, the fact that JR East has inherited valuable fixed assets and managed its business successfully must not be forgotten.

Now that we are facing a society with a declining population and frequent occurrences of natural disasters, it is necessary for both sides to pull their wisdom and cooperate on how to maintain and continue railways for the benefit of the people. The JREU will continue to cooperate with JR-East to increase the number of users and ensure safety as beloved railway .

Thank you for listening!



JREU National
Office