

# SENDAI

Sendai enjoys 80% coverage in greenery. This "City of Trees" has nurtured a rich natural environment in collaboration with its citizens. Reflecting lessons learned after the Great East Japan Earthquake (GEJE) in 2011, Sendai embraces a "Disaster-Resilient and Environmentally-Friendly City" plan that builds disaster risk reduction (DRR) and environmental considerations into all policies.



Sendai City **1.1** million people **Prefecture GRP 9.8** trillion yen City GRP 5.3 trillion yen



# STRENGTHS

## **Advantages and Characteristics**

A world leader in disaster risk reduction	• The Sendai Framework for Disaster Risk Reduction 2015-2030*, an international guideline for DRR, was adopted in Sendai. Lessons learned as a result of the earthquake are shared with the world, contributing to global DRR.	EXPERIEN Disas Environ
	*Together with the SDGs and the Paris Agreement (adopted in the same year), this framework is one of three global agendas for 2030. It describes comprehensive disaster risk management and directly contributes to target #11 of the SDGs, "Sustainable Cities and Communities."	
"City of Trees"	<ul> <li>Recycling and climate change initiatives are being undertaken as part of Sendai's effort to be a "City of Trees," a sustainable community where residents enjoy the blessings of nature.</li> </ul>	



#### Sendai City Green Bonds

Sendai was the first municipality in Tohoku\* to issue green bonds. This accelerates the development of a disaster-resilient, environmentallyfriendly, decarbonized society. \*The northeast of Japan (not including Hokkaido)

#### Major Events

- World BOSAI Forum / IDRC in SENDAI. 2023
- G7 Science and Technology Ministers' Meeting in Sendai, 2023



- 17th World Conference on Earthquake Engineering, 2021 (3,000 participants)
- The 3rd United Nations World Conference on Disaster Risk Reduction, 2015 (6,500 participants)

#### **STRATEGIES Sustainability Strategies and Plans**

### **SDGs Strategy**

#### Sendai City SDGs Future City Plan

• Sendai's vision for 2030 is to become a "Disaster-Resilient and Environmentally-Friendly City" through sustainable and attractive urban development.

#### Furusato-no-Mori Regeneration Project

 Residents and businesses are assisting with tree-planting activities that are regenerating and creating green spaces in coastal areas that were severely damaged in the GEJE. Coastal disaster reduction forests provide multiple layers of defense from tsunamis and have contributed to environmental education in the area. Sendai also received the first Green Infrastructure Award (Disaster Prevention and Mitigation Division) sponsored by the Green Infrastructure Public-Private Partnership Platform.

#### Sendai City Global Warming Countermeasures Promotion Plan (2021-2030)

The plan sets a goal of net zero greenhouse gas emissions by 2050.

Initiatives contributing to the 2030 vision
Vision

#### A Disaster-Resilient and Environmentally-Friendly City

#### Economy

In March 2021, Sendai announced its aim to become a zero-carbon city.

centers that serve as disaster management bases. This initiative was advanced because of the energy disruption that occurred after the 2011

Disaster-resistant solar power generation systems combining solar power and storage batteries have been installed in all designated evacuation

disaster. Efforts are being made to reduce disaster risk and environmental

- BOSAI-TECH Innovation Platform
- Near Future Technology
- **Demonstration Project**

A zero-carbon city

impact during times of stability.

#### Society

- DRR education • Promoting disaster resilience
- amongst stakeholders

#### Greenhouse Gas Reduction Action

- Program
- Plastic recycling
- Green infrastructures

Environment



Solar panel installation

Tree-planting project

## Human Resource Development

In 2015, Sendai hosted one of the largest international UN conferences ever held in Japan: The 3rd United Nations World Conference on Disaster Risk Reduction. During the event, the Sendai Framework for Disaster Risk Reduction, an international DRR guideline, was adopted. Since then, a regular event called the Sendai Symposium for Disaster Risk Reduction and the Future has given citizens a chance to gather, learn, and think about DRR. This forum is highly regarded for its role in nurturing future DRR leaders.

The 2015 conference strengthened Japanese and international networks, leading to further events relating to earthquakes and DRR, such as the 17th World Conference on

Earthquake Engineering. Lessons learned from the GEJE continue to be communicated.

In Sendai, a midterm review of initiatives based on the Sendai Framework is being conducted in cooperation with Tohoku University's International Research Institute of Disaster Science. This is an unprecedented independent evaluation and the local government will publish the results.



Sendai Symposium for DRR and the Future

## Multilingual disaster support

The Sendai Tourism, Convention and International Association (SenTIA) is carrying

out regional DRR efforts from a multicultural perspective. During a disaster, the Disaster Multilingual Support Center will offer foreigners in the area relevant information in multiple languages. SenTIA is also training language volunteers who can provide information in various languages.



Disaster Multilingual Support Center website

## **Building Multicultural Communities**

The Sendai Multicultural Center is within the Sendai International Center, the city's main convention facility. Its services include multilingual consultation and interpretation. The Center provides international exchange information for citizens, multilingual living information for foreign residents, and tourist information for visitors.

SenTIA is promoting a multicultural outlook through community building and human resource development. It helps business events to respect cultural differences and offers information in multiple languages.



Sendai Multicultural Center

## Convenient and eco-friendly transport

The convention area is just a five-minute subway ride from Sendai Station, the city's main terminal. The Loople Sendai bus offers easy access to sightseeing locations, and Sendai MaaS, a smartphone app, lets the user search routes and buy tickets, making public transport even more accessible.

Shared cycle ports for rental bicycles have been installed in the city center, including on the premises of Sendai International Center, giving event participants another green transport option.



Loople Sendai

Shared Cycle Port (DATE BIKE)

## SENDAI

## **Sustainability Initiatives**

## **Cultural Experiences and Excursions**

#### Activities

SenTIA offers various activities and cultural experiences. Tourists can make their own chopsticks by hand using leftover construction materials. The workshop has been included in international conferences and participants have praised it as a fun, eco-friendly initiative.



Handmade Chopstick Workshop

#### Excursions

Sendai cooperates with schools and business to offer excursions with themes relating to community resilience and sustainability. At Sendai Arahama Elementary School, participants can see clear traces of the disaster. Exhibits show the scenery before and after, deepening an understanding of the threat that tsunamis pose.

Other excursions introduce the sustainability initiatives of local businesses. Participants can see how factories use cutting-edge technology to recycle resources and conserve energy.



Sendai Arahama Elementary School

## The Sendai International Center

The Sendai International Center implements various sustainability initiatives.

Waste Reduction	Horizontally recycled <sup>*1</sup> plastic bottles		
Waste Reduction	• Business cards made using Sendai Tanabata Fukinagashi*2		
Energy Concernation	• LED lighting		
Energy Conservation	Shared cycle ports for "DATE BIKE" rental bicycles		
Green Space	Cherry blossom tree planting		
Conservation	Regular professional inspection and maintenance of trees		
DRR	• Acting as a backup Disaster Response HQ for the city government		
DKK	Disaster stockpiles and disaster relief vending machines		
Universal Design	• Pictogram displays		
Universat Design	• Barrier-free maps		
system that uses old products as a material to make the same product anew ecorations featuring colorful tape attached to paper balloons or balls.			

## **Eco-Friendly Business Certification**

Local businesses that reduce waste and promote recycling are certified as Eco Niko Meisters, and the most actively committed companies are certified as Eco Niko Gold Meisters. The system was introduced in 2019 as a way to promote green initiatives

among local businesses. As of October 2022, 137 organizations, including SenTIA, the Sendai International Center, and various public transport operators were certified. This initiative supports the holding of environmentally friendly business events.



Eco Niko Meister Certification Mark