



松本市・ソルトレイクシティ姉妹都市 65周年
Matsumoto-Salt Lake City Sister Cities
65th Anniversary



Mayoral Panel
on Climate Change

市長パネル
気候変動について



Overview of Matsumoto City

Population	235,948
Land area	978.47km ²

(As of June 2023)



Nagano

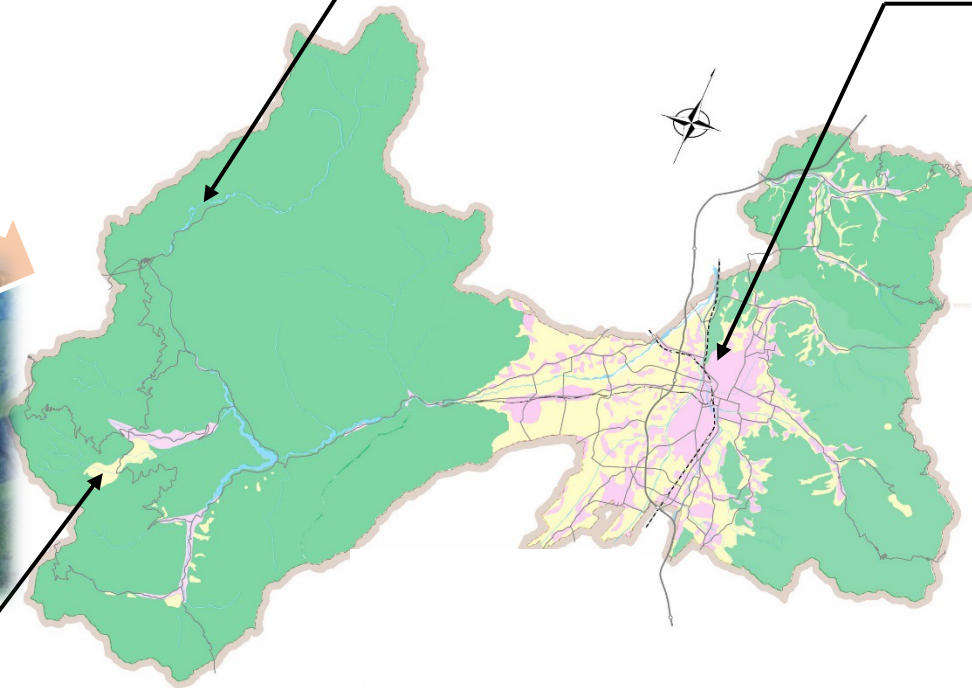
Matsumoto

Kamikochi

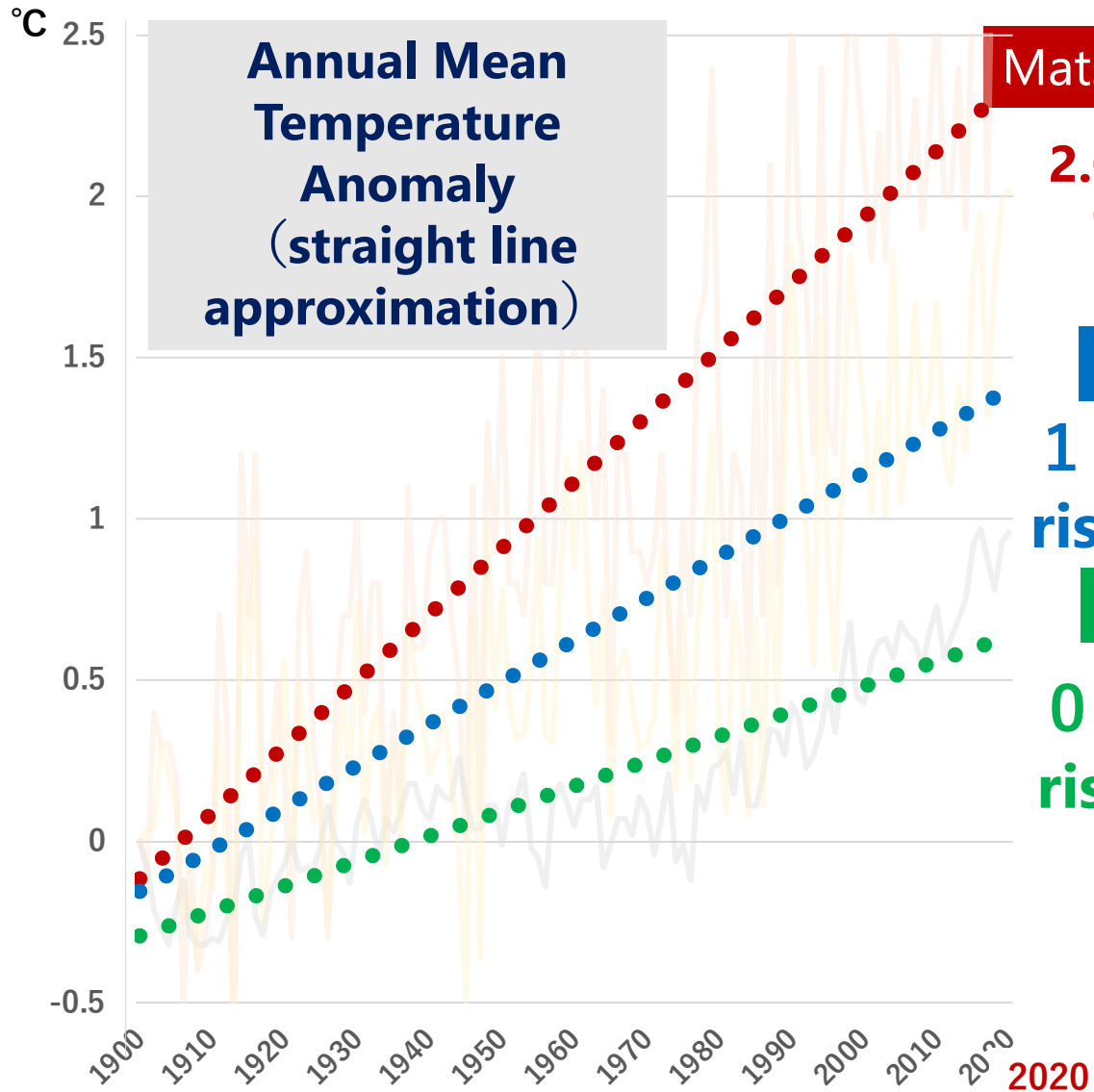
Matsumoto Castle



Norikura Highlands



Current Situation in Matsumoto



Matsumoto City

2.01°C rise in 100 years

Japan

1.26°C rise

World

0.72°C rise

Approx. 3 times that of the world



Ski fields lacking snow

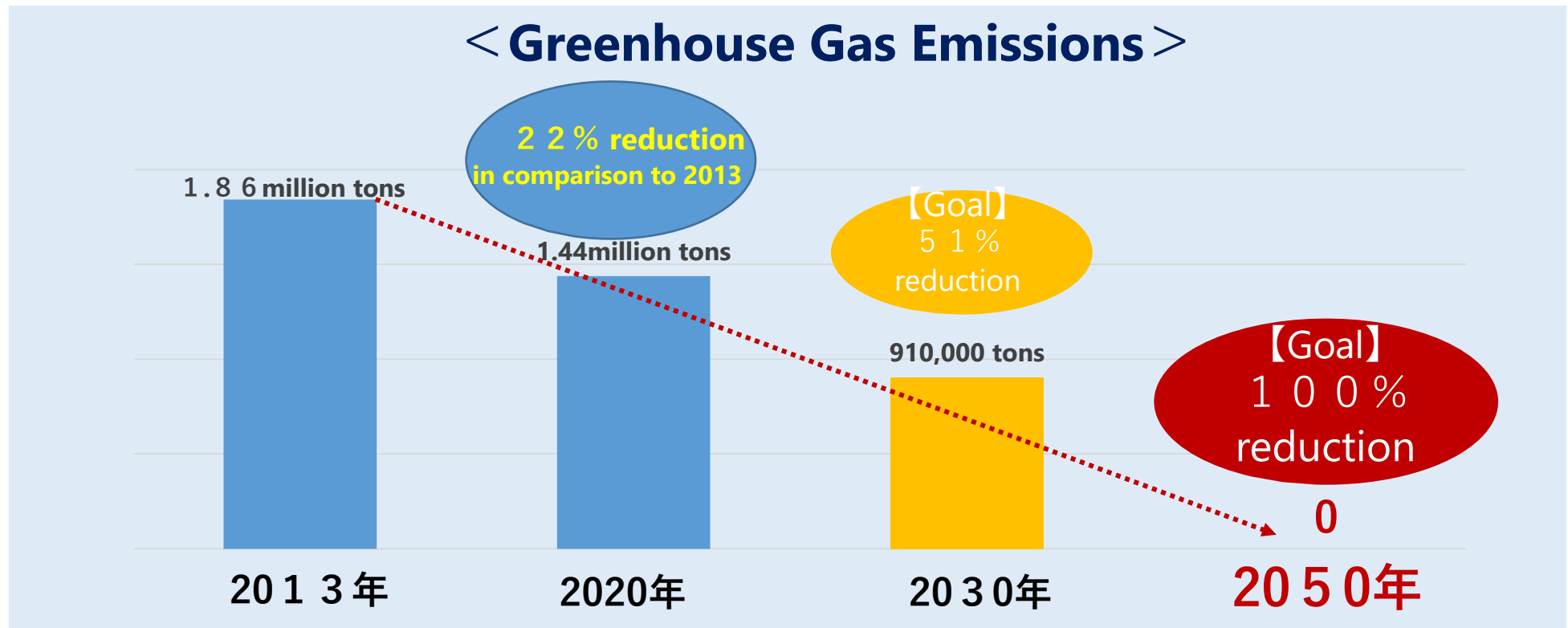


Poor quality apples due to high temperatures



Progress So Far

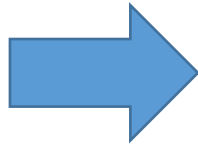
- ▶ Aim to Realize the Achievement of a 2050 Zero Carbon City announced. (December 2020)
- ▶ "Matsumoto City Zero Carbon Realization Ordinance" enacted. (June 2022)
- ▶ "Matsumoto Zero Carbon Achievement Plan" developed. (August 2022)



Challenges

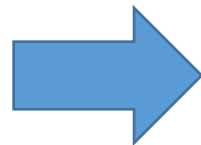
① Promoting the introduction of **renewable energy**

② **Accelerated reduction** of greenhouse gasses



< Leading Project >

③ **Development of leaders** to drive decarbonization



< Industry-academia-government collaboration platform >

< New local power supplies >

< Leading Project >

① Promoting the introduction of renewable energy

② Accelerated reduction of greenhouse gasses

◆ Leading Decarbonization Area ◆

- ▶ Aim to achieve carbon neutrality for electricity demand in this region ahead of schedule, by 2030.
- ▶ Aim to create a sustainable world-class mountain resort.

Norikura Highlands



< Leading Project >

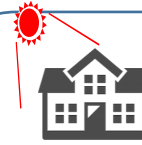
- ① Promoting the introduction of renewable energy
- ② Accelerated reduction of greenhouse gasses



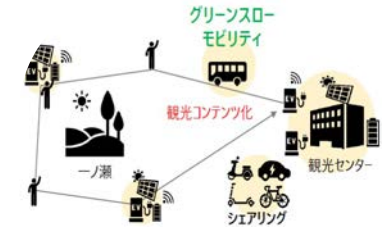
Installing Small Hydroelectric Generation Facilities



General image of small hydroelectric generation facilities



Energy Conservation at Tourism Center



General image of tourism center

Promoting the Use of Woody Biomass for Heat



Poorly managed Ichinose Meadow

Logging



Processing



Supplying



Introduction of wood-burning heaters and wood-fired boilers to each household and accommodation facilities

Develop as a local business

< Leading Project >

① Promoting to introduce renewable energy

② Accelerate to reduce greenhouse gas

【Three Elements for Achieving a Decarbonized Society】

Leading
Decarbonization Area



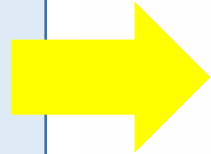
**Small Hydroelectric
Generation**



**Energy Conservation at
Tourism Center**



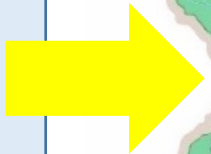
**Promoting the Use of Woody
Biomass for Heat**



**1 Maximizing Introduction of Main Sources
of Renewable Energy**

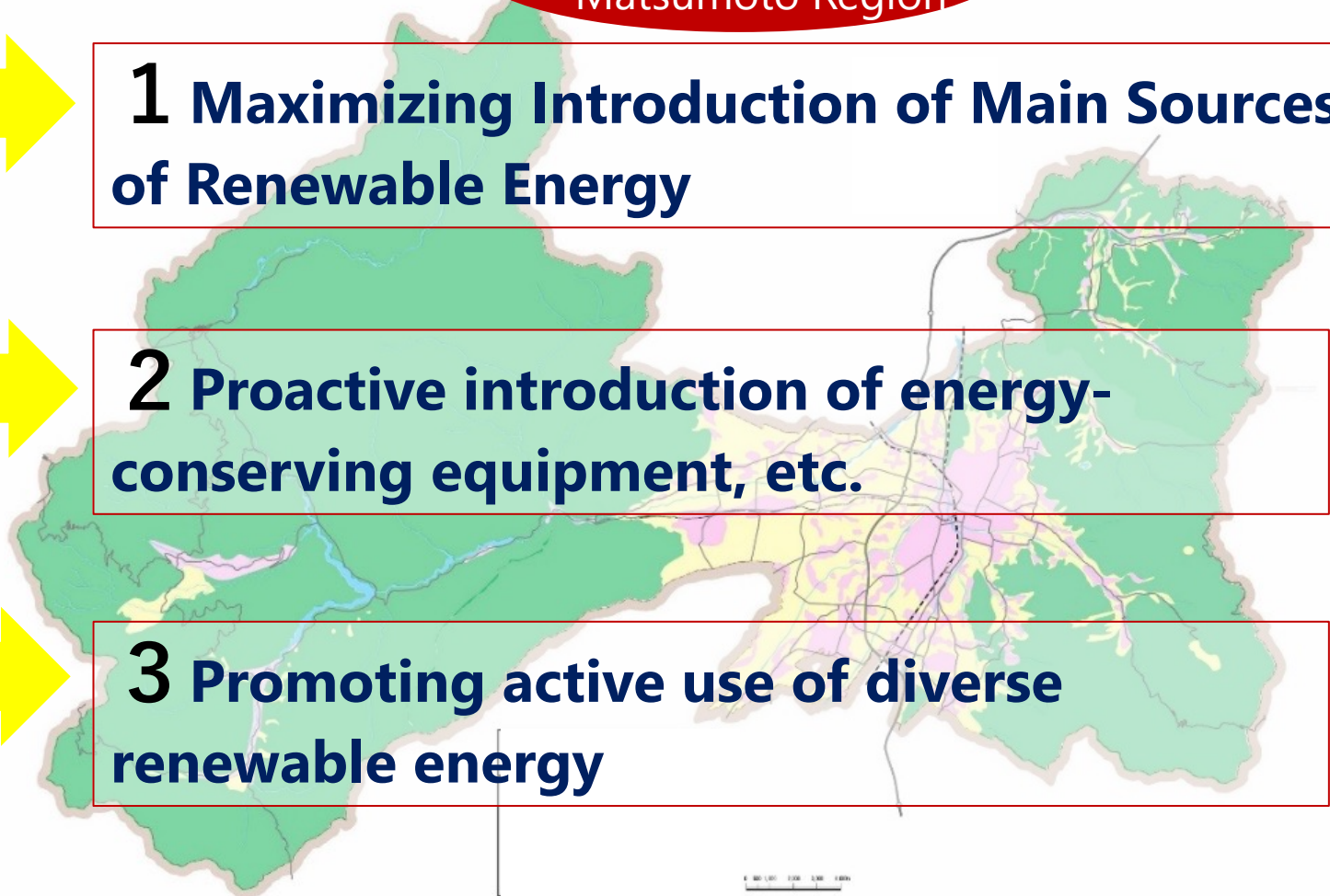


**2 Proactive introduction of energy-
conserving equipment, etc.**



**3 Promoting active use of diverse
renewable energy**

To the Entire
Matsumoto Region





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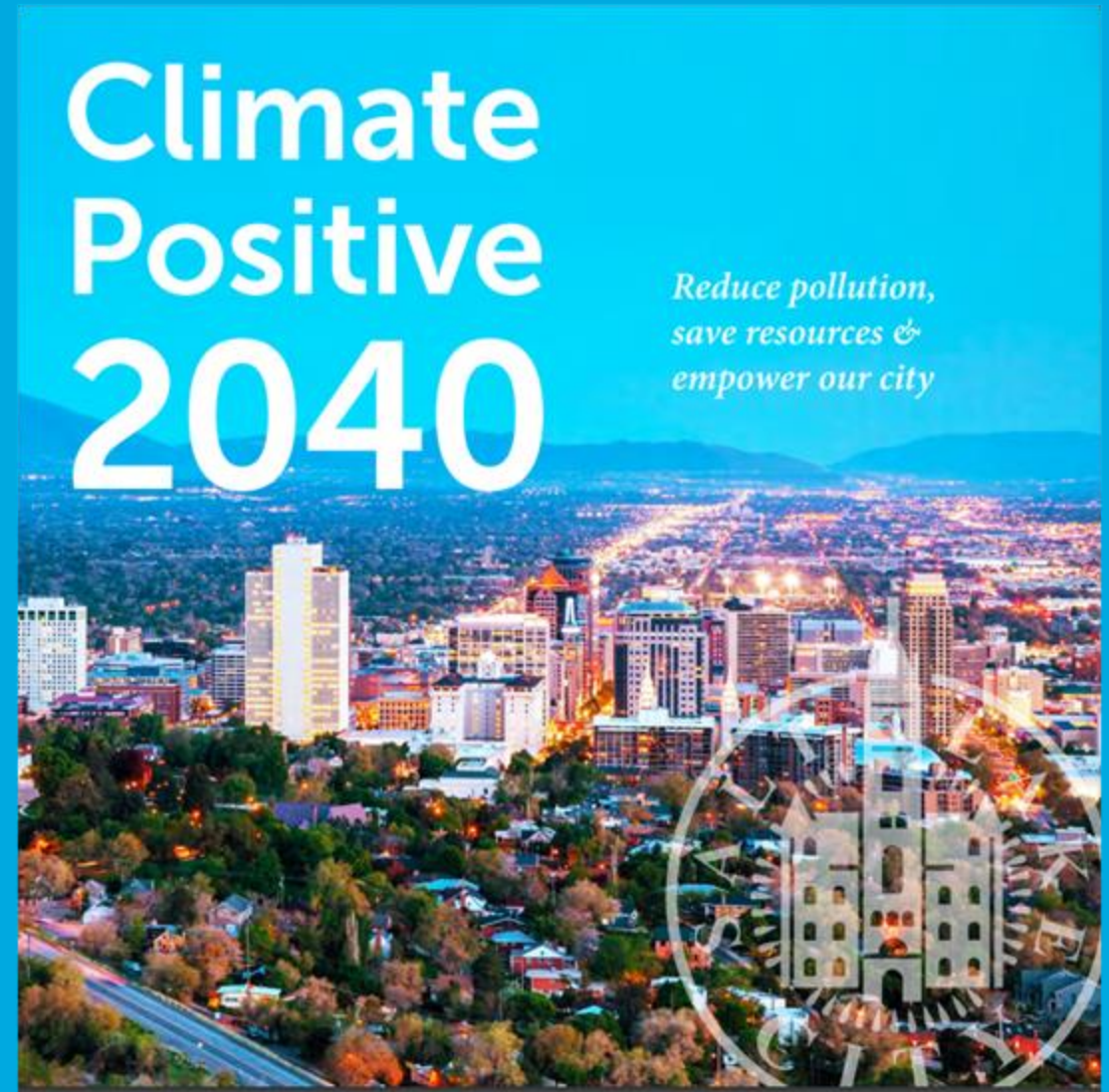
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Salt Lake City Climate Goals | Joint Resolution

- 100% Renewable Energy for Community Electricity Supply by 2030
- 80% Reduction in Community Greenhouse Gas Emissions by 2040



Community Renewable Energy Program

- 2019 State legislation allows eligible local governments to procure net-100% renewable electricity by 2030 on behalf of their residents and businesses.
- Expect to submit program to state regulators later this year.
- Goals
 - A default net-100% renewable electricity option
 - Affordability
 - Inject a significant amount of new renewable energy into our electric grid
 - Protect low-income customers
 - Combine the interest of communities across Utah to multiply our impact



Elektron Solar Groundbreaking

Along with 5 other large energy users, Salt Lake City worked with Rocky Mountain Power, and developers D.E. Shaw and Enyo Renewable Energy to begin construction on an **80 MW solar farm in Tooele County.**

It will meet nearly 100% of SLC's municipal electricity consumption when it comes online ~2024.



Elektron Solar Groundbreaking, Oct. 19, 2021

Other Programs

- **All-electric and Net Zero standards for City buildings:**
 - Internal buildings
 - RDA's new Sustainability Policy
- Commercial Property Assessed Clean Energy (C-PACE)
- Electric Vehicles
- Energy Benchmarking Program

REDEVELOPMENT AGENCY OF SALT LAKE CITY **SUSTAINABLE DEVELOPMENT POLICY**

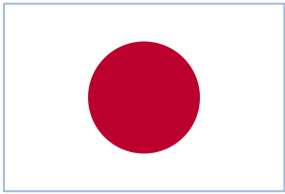
All new construction projects receiving any RDA funds (and rehab projects receiving >\$200K in RDA funds) must meet all of the following requirements:

**ENERGY STAR
SCORE OF 90**
Meet energy efficiency design target to perform among top 10% of buildings nationwide

**100%
ELECTRIC**
Design buildings without natural gas

**SLC'S ENERGY
BENCHMARKING
PROGRAM**
Submit yearly operational data to SLC's Elevate Buildings Program





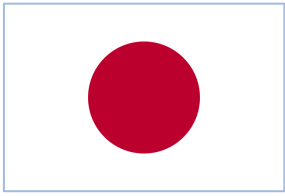
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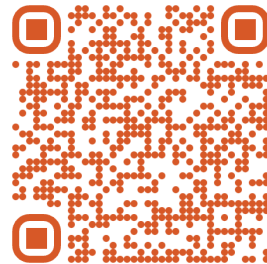
Matsumoto's
 climate action plans

<https://www.city.matsumoto.nagano.jp/soshiki/51/4412.html/>



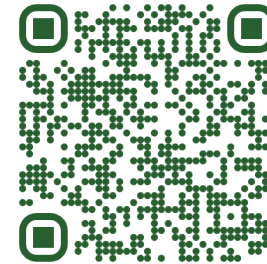
Salt Lake City's
 climate action plans

<https://www.slc.gov/sustainability/climate-positive>



See this full
 presentation & more:

<https://wilkescenter.utah.edu/events/sister-cities-panel>



Anticipated **Impacts**

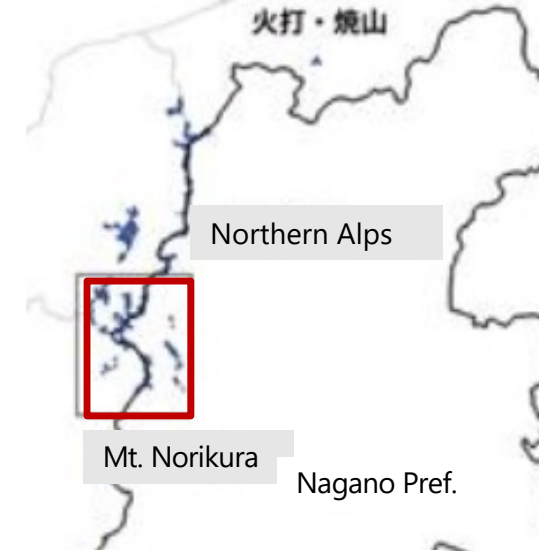
Symbolic Bird of
Nagano Prefecture

Natural Monuments of Japan

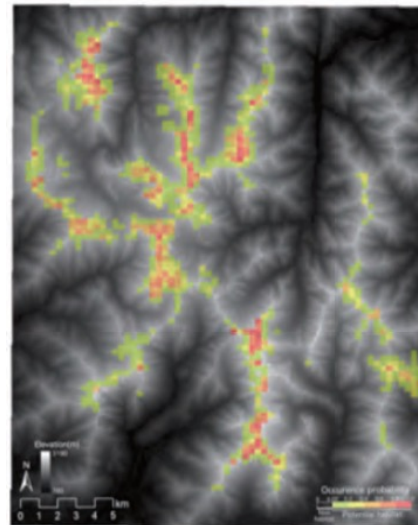
Habitat Loss for **Japanese Rock Ptarmigan**



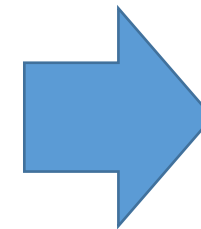
Predicted resultant potential habitat area of Japanese Rock Ptarmigan in the central and southern areas of the Northern Alps



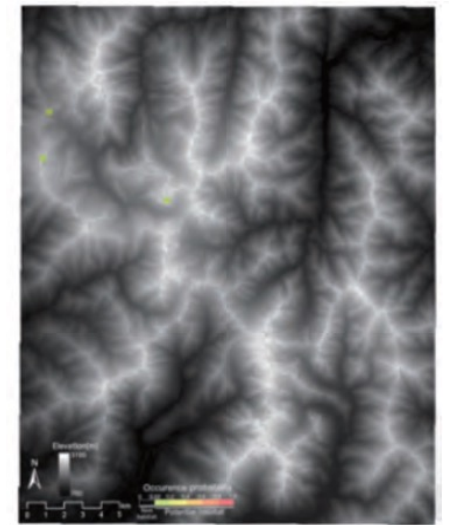
< Present >



Colored spots;
Habitat area



< End of 21st Century >



Reference: Nagano Prefecture Climate Change Impacts and Policy Adaptation

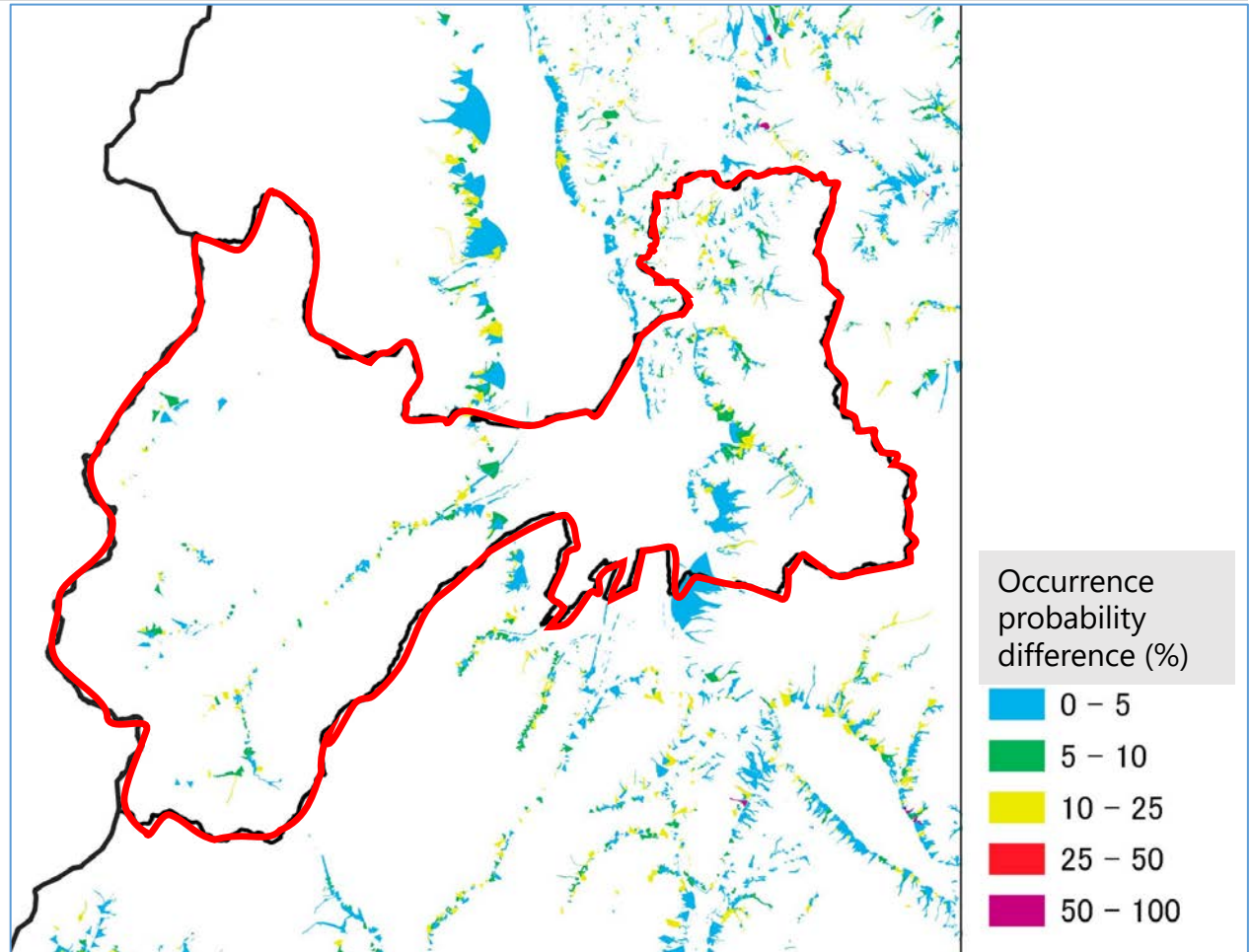
Anticipated **Impacts**

Increase in Sediment-related Disasters

[Increases in the probable amount of slope failures between the present and the end of the 21st century]

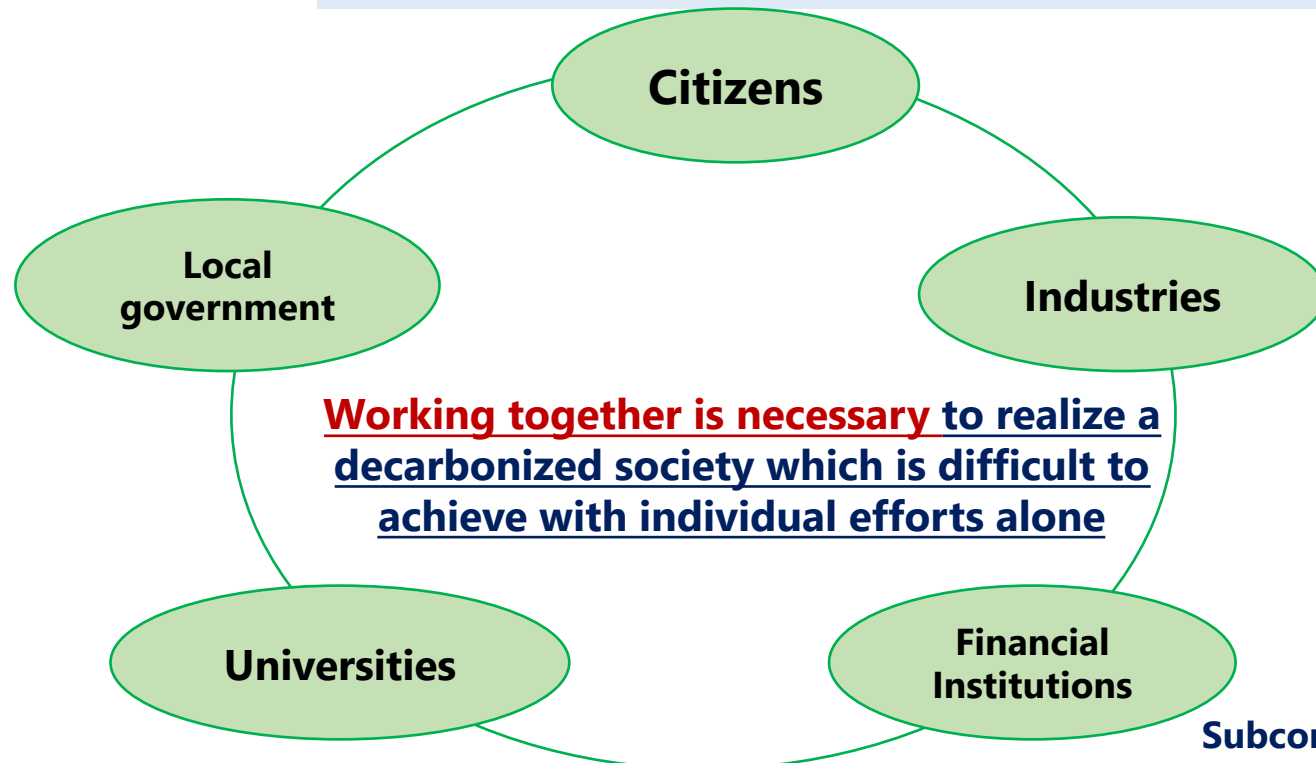


Heavy rain disaster of August 14th - 15th, 2021



◆ Matsumoto Region Zero Carbon Consortium ◆

- ▶ Established in February 2022 as an organization of **Industry-academia-government collaboration**
- ▶ It supports local businesses in **commercializing decarbonization**
- ▶ **124 organizations** have joined in the consortium



Subcommittee Meeting of the Matsumoto Region Zero Carbon Consortium

< New local power supplies >

③ Development of leaders to drive decarbonization

- ▶ Energy Infrastructure which supports a zero carbon city, and brings **economic development to the local area**.
- ▶ They play a **crucial role** in the development and supply of renewable energy to the local area.



Waste to energy (Matsumoto Clean Center)



Solar power generation equipment is to be installed sequentially.

Local Transportation Infrastructure Towards Decarbonization

- ▶ **Commercially Managed Public Transport**
- ▶ Introducing **AI On-Demand Transportation System**
- ▶ Promoting utilization of **bicycles**



Local bus running through the city



Bicycles for bicycle-sharing parked at Matsumoto Castle



On-demand transportation (Image only)