

2nd NOV 2021, COP26 Side Event@Japan Pavilion "Promoting Zero Carbon City through making "Decarbonization Domino Effect"

「里山資本主義」真庭の挑戦

Maniwa

The Use Biomass for a Low-Carbon Society

Maniwa City's Town Hall works with
Tree (using a biomass boiler)
Sun (solar panels)
& **People**

*Mayor of Maniwa City,
Noboru Ota*

Maniwa city's Town Hall Uses
100% of the region's
renewable energy





◆Maniwa Profile

Location : Northern part of Okayama prefecture

Total Land : 828km²

(About 5 times that of Glasgow city)

* Glasgow city area : 175.5km²

Population : 44,539 people(2020)

(About 7% of Glasgow city)

* Population of Glasgow city:635,640 people (2020)

Town Features :

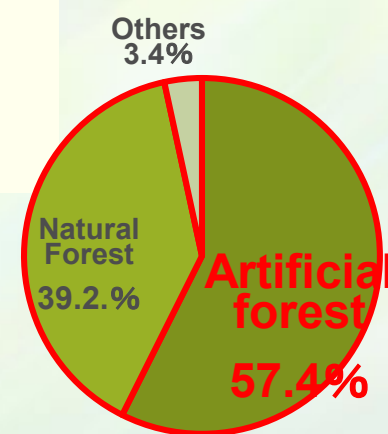
- Forests occupy about 80% of the lands
- Famous as a timber city with a high quality timber supply chain



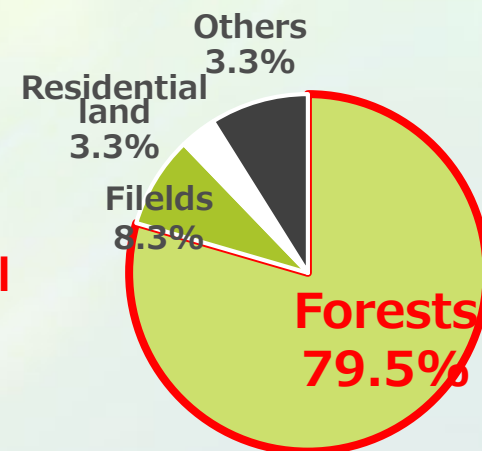
Basin Status



GREENable
HIRUZEN



Forest Composition

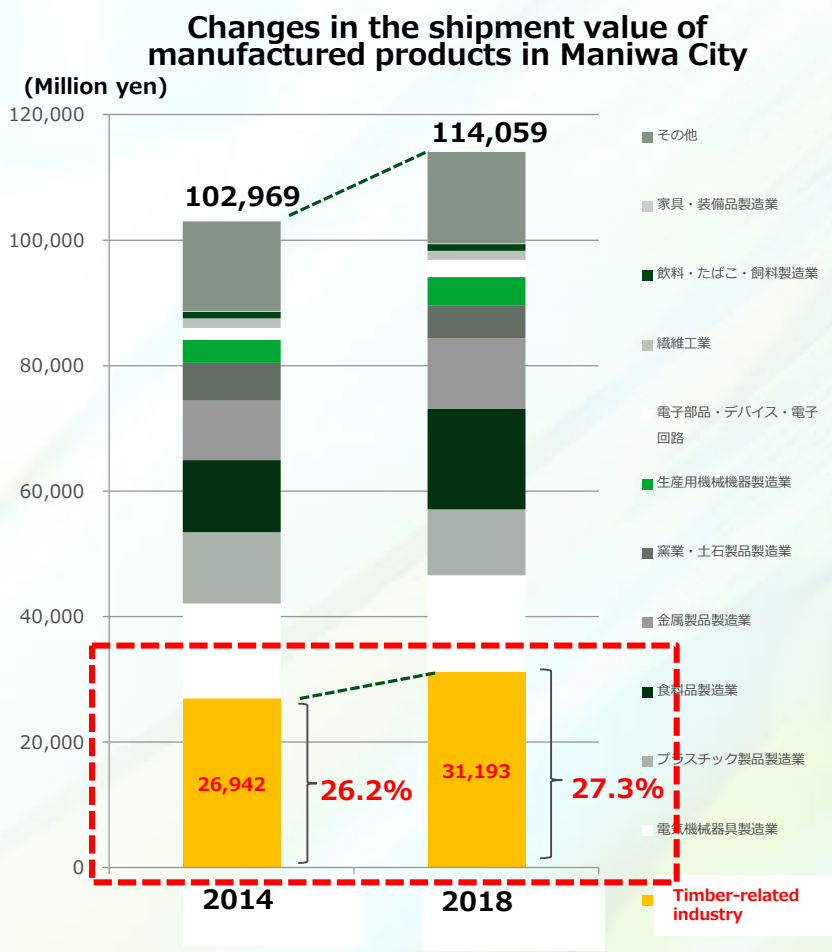


Land Composition

2 Regional Strategy : "Economic Cycle"

- About 30% of the shipment value of manufactured products in Maniwa is **timber-related industry**.

- In Japan, **Maniwa** is famous as a **timber city** with **multiple raw timber markets**, a high quality **timber supply chain**.



Source : Industrial Statistics Survey



20 Logging Companies
Total employees : About 240
(Avg. worker age ≈ 40s)



3 Raw Timber Markets
→ 138,000m³/yr
* About 1/3 of the prefecture's total (≈ 390,000m³)



30 Sawmills
(Raw lumber stock ≈ 200,000m³/yr)
(Outgoing sawed stock ≈ 120,000m³/yr)

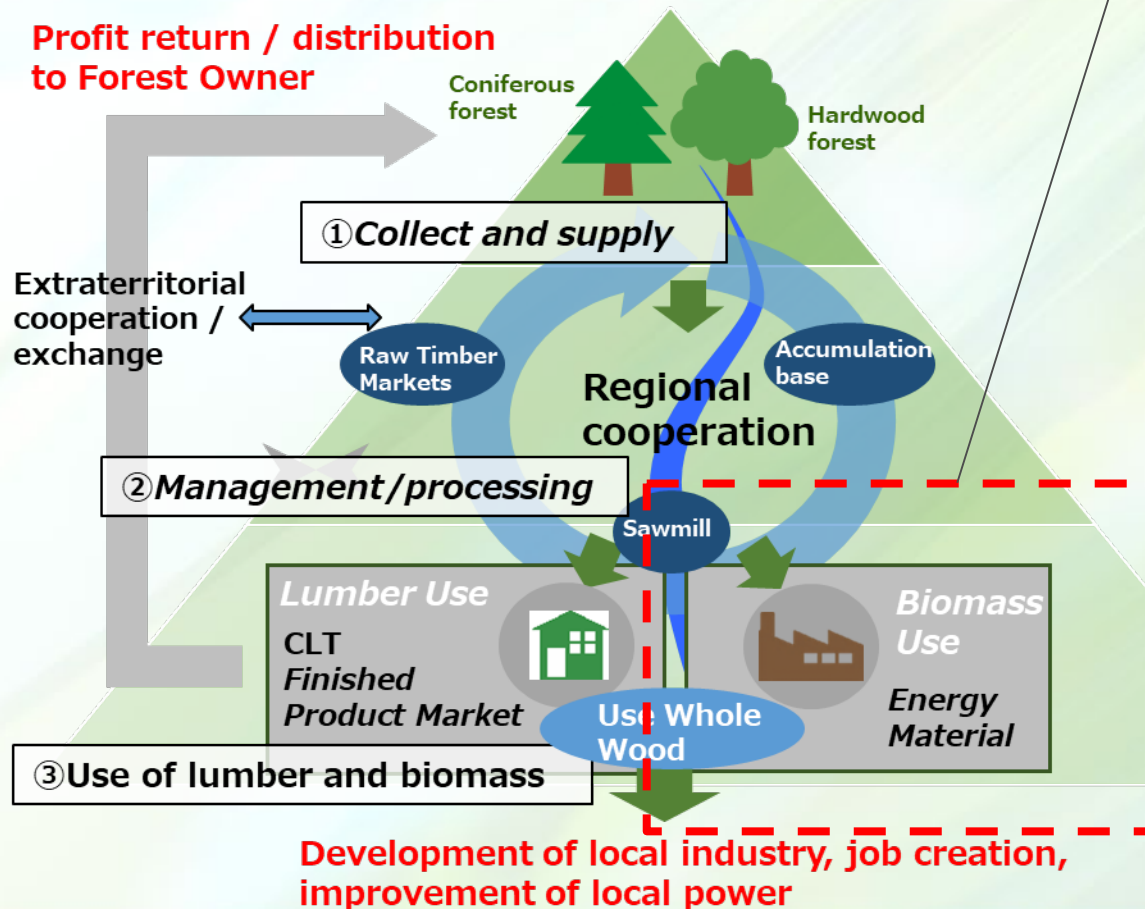


2 Wood biomass power plants
Maniwa biomass power plant (10,000kw)
MEIKEN biomass power plant (5,000kw)

1 Finished Product Market

3 Maniwa as Circular Economic City with Woody Biomass Power Plant

- Since 2015, achieved to create a **circular economic city** that uses **mill ends/waste wood from the region** with **Maniwa Woody Biomass Power Plant**.
- **Giving new value to unused/waste wood** (disposal would have cost **¥100million+**)
⇒ Profits go to the 50 companies involved.



【Maniwa Wood Biomass Power Plant】



- **Scale: 10,000kW** (Output: 82,000MWh)
- **Fuel: 110,000t/yr** (using mill ends/waste wood from within the region)
- Also reducing cost by **¥550/t** for forest owner.

Sales : ≈ ¥2.3billion
(Bought Fuel: ¥1.4billion)

Oil Substitution: ¥2.4billion
※ Kerosene = ¥84円/ℓ

4 GREENable HIRUZEN

(A new Landmark for Japan's SDGs Future City Maniwa)

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CLT produced in
Maniwa City



CLT returning to its
birthplace Maniwa



Relocated in Maniwa

■ 2021年

After finishing its role for the pavilion in Tokyo, the materials are relocated to Hiruzen national park in Maniwa City, Okayama Prefecture and reopened on 15th July 2021.

GREENable HIRUZEN represents cyclic exchange of natural and cultural resources between the city and regional areas.

【Hiruzen ⇔ Tokyo Project】

■ 2019年

CLT Pavilion is assembled in Tokyo by the architect **Kengo Kuma & Associates**, using eco-friendly cross-laminated timber, **produced in Maniwa**

→ To communicate the attractions of CLT and local lumber

Maniwa

Tokyo

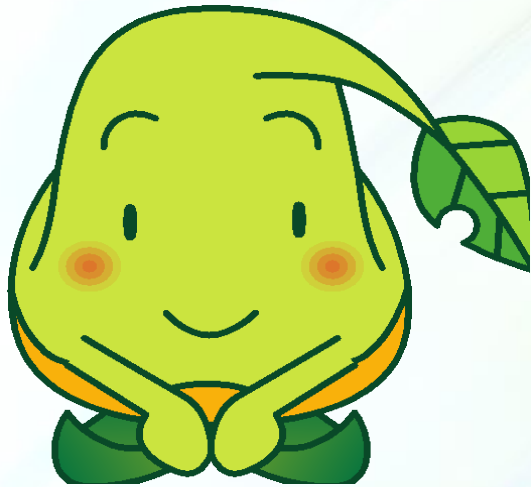
dismantled and
relocated

Originally used for
events in Tokyo
(Fall 2019 ~ Fall 2020)



Thank you for listening!

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Maniwa's character
「Manizo」



(HIRUZEN/ Plateau)



(KATSUYAMA/ Goodwill Town)



(OCHIAI / DAIGO-SAKURA)



(HOKUBO/fire Fly)

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