

# **Shichigahama Reconstruction Overview**



### ☐ Shichigahama Reconstruction Overview [As of 8/01/2017]

• Land area: 13.19k m<sup>2</sup> (Smallest in Tohoku and Hokkaido region)

Population: 19,051 people

(20,855 people in Jan 2011 before the disaster, a difference of 1,804)

Number of households: 6,627

(6,568 in Jan 2011 before the disaster, a difference of 59)

Aging population percentage: 27.9%(As of 04/01/2017)
Low birth rate percentage: 11.7%(As of 04/01/2017)

• Ratio of different industries Primary sector: 3.2% Secondary sector: 25.7% Tertiary sector: 69.8%

(According to 2010 census)

• Temporary housing: 0 units / 0 residents (2017/3/31)

(MAX: 7 sectors 425 emergency units, 218 private units)

International sister city: Plymouth, Massachusetts, United States of America

National sister city: Asahi Town in Yamagata Prefecture

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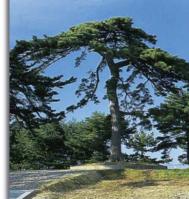
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Town flower: Daisy

Town tree: Black pine

## 1 Great East Japan Earthquake Damage in Shichigahama Details

☐ Earthquake Details Occurred on Friday, 03/11/2011 at 2:46 PM - Magnitude 9.0 (Strong level 5 on Japanese quake scale) The biggest measurement in Miyagi Prefecture was a strong level 7 in Kurihara City. Besides Miyagi, the quake center in Tohoku was felt from Hokkaido to Kyushu. Tsunami tide height: 12.1 meters - The tsunami occurred on the ☐Tsunami Details same day, with the first tidal wave arriving at 3:51 PM  $4.8 \text{ k} \text{ m}^2$  (36.4% of the town's total land area)

☐Tsunami Flood Area

■ Number of Casualties □Number of Shelters **6,143 people** (max) **36** (max)

☐ Fatalities (unit:persons)	
Shichigahama residents	94
Non-residents in Shichigahama	12
Missing persons	2
Earthquake related fatalities	3
Total	111

☐ Residential Damage(unit:structures)			
Washed away / completely destroyed	674		
Large scale destruction	237		
Partial destruction	413		
Some damage	2,605		
Total	3,929		

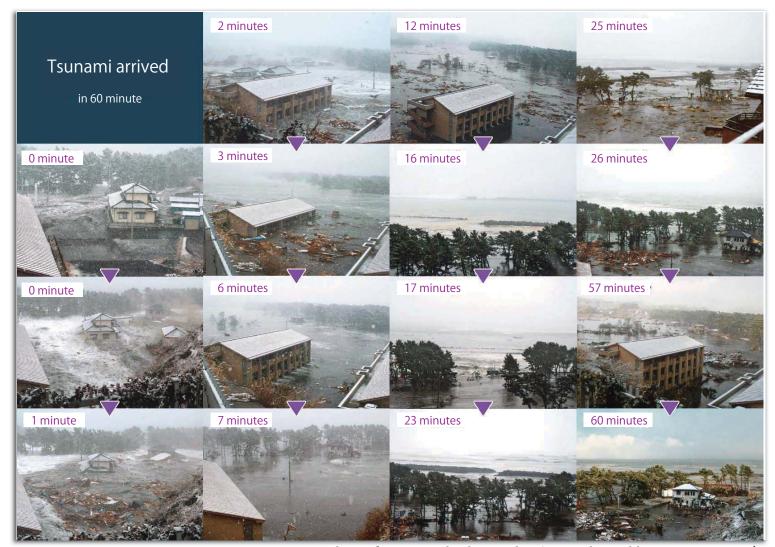


Photo from South Shiomidai (Contributed by townsperson)

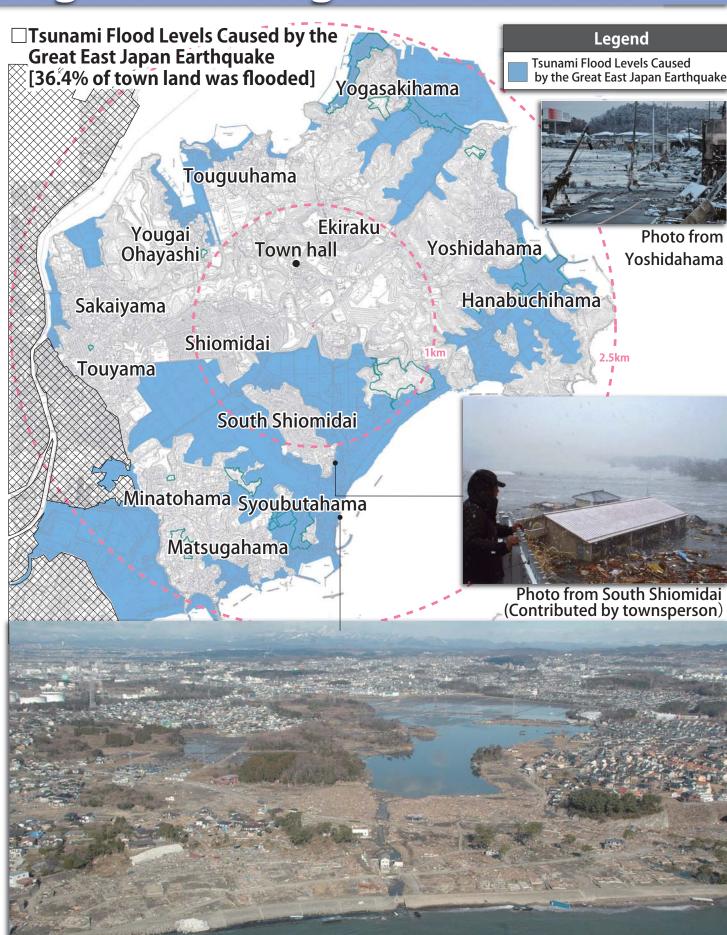


Photo taken 3/27/2011 (Contributed by Japan Self-Defense Forces) View is from the Pacific Ocean, facing Shoubutahama and South Shiomidai areas

# 1 Great East Japan Earthquake Damage in Shichigahama Details



Minatohama



Matsugahama



Syoubutahama



Hanabuchihama



Yoshidahama



Yogasakihama



Shiomidai



Shelter (School)



Search for missing by Self-Defence Force



Search for missing by fireman



Long lines formed in front of the water wagon



**Volunteer Activities** 



Tsunami attacked even Shelter that is12 meters above sea level



Ship was washedup on the roof



Shichigahama Middle School was destroyed by earthquake



Fire occurred in refinery

### 2 Earthquake Reconstruction Plan

In order to tackle the new reconstruction policies following the 2011 Great East Japan Earthquake, the Earthquake Reconstruction Plan was formulated in November 2011, taking into account the basic town blueprint, which incorporated the 2011-2020 Long-Term Comprehensive Plan made in 2010. In February 2014, along with the revised edition, an update to the 2011-2015 Early Basic Plan and the "Town Reconstruction Land Use Guidelines" were also formulated

### ☐ The Long-Term Comprehensive Plan & Earthquake Reconstruction Plan

### □ Long-Term Comprehensive Plan

A plan aiming to, "as part of a harmony with nature, build a town that's easy to live in where humans can live comfortably and like humans

#### ☐ Earthquake Reconstruction Plan

Together with the Long-Term Comprehensive Plan, the Earthquake Reconstruction Plan, as part of quick-paced recovery and reconstruction efforts, would tackle the reconstruction and regrowth of Shichigahama

X	cart	nqua	ake r	ieco	nstru	ICLIO	n Pla	ın		
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
I						Basic	Visio	n (10	yrs.)	
Ì	Early	y Basi	c Plai	n (5 y	rs.)	Late	Basic	Plan	(5 yr:	s.)•
	Ear	y Bas	ic Pla	n [5 y	yrs.]				[5 yr:	
		ration d (3 yr				*Unifie the Lo	d with th ong-Tern	ne Early I n Compr	Basic Pla ehensive	n from Plan
I		Regrov	vth Pe	riod (5	yrs.					
١				Progr	ess Pe	riod (1	0 yrs.)			

#### ☐ Earthquake Reconstruction Plan [Early Basic Plan] ■ Earthquake **Reconstruction Basic □**Reconstruction Policy ☐ Important Reconstruction Measures Policy Working with nature to implement strong disaster-resistant measures District reconstruction Promotion of the phrase with community in mind A beautiful townscape and scenery that would pass down the town's culture "As part of a harmony A rich environment for children that would last through future with nature, build a town that's easy to live Regrowth and expansion of district communities Rebuilding a in where humans can tsunami-resistant town Activation of industries reviving our town's characteristics live comfortably and like humans," which was crafted taking safety **Rapid reconstruction** Shichigahama Evacuation Plan (est. 10.25, 2012) and peace of mind into of city foundations consideration.

Rules of Land Use [Total area 1,327ha]	Area (ha) (Ratio %)		Local reconstruction	Takadai Housing Complex	Disaster <sup>*2</sup> Public Housing	
Red Zone (Tsunami-inundated area)	159.1 (12.0)	in dangerous disaster areas, building is limited to non-residential structures only.	×	0	$\circ$	Town hall
Yellow Zone (Tsunami-inundated area)	22.5 <sup>*1</sup> (1.7)	The disaster-afflicted districts reconstruction project	0	0	0	
Blue Zone (Tsunami-inundated area)	301.4 (22.7)	Supposed area of reconstruction	0	×	$\bigcirc$	
Unspecified (Non-tsunami-inundated area)	844.0 (63.6)	Supposed area of reconstruction	0	×	0	

Town Reconstruction Policies
Town reconstruction that takes the natural environment into account

Town reconstruction that takes the town's history, climate, and scenery into account

Town reconstruction that is sustainable through the future

Town reconstruction Land Use Guidelines

Guiding Principals for Landscaping
Projects facilitating group relocation for disaster mitigation, disaster Residential recovery public housing construction projects, reconstruction and distribution of livable land in the disaster-affected area

Business

As part of the establishment of a relocation promotion area, plans to buy up previously designated land and repurpose it for industry designated land for public use

Town reconstruction that is
Safety - reduction of natural disasters
and peace of mind

Comfort - functional and convenient

Greenery

Greenery

Greenery

Greenery

Greenery

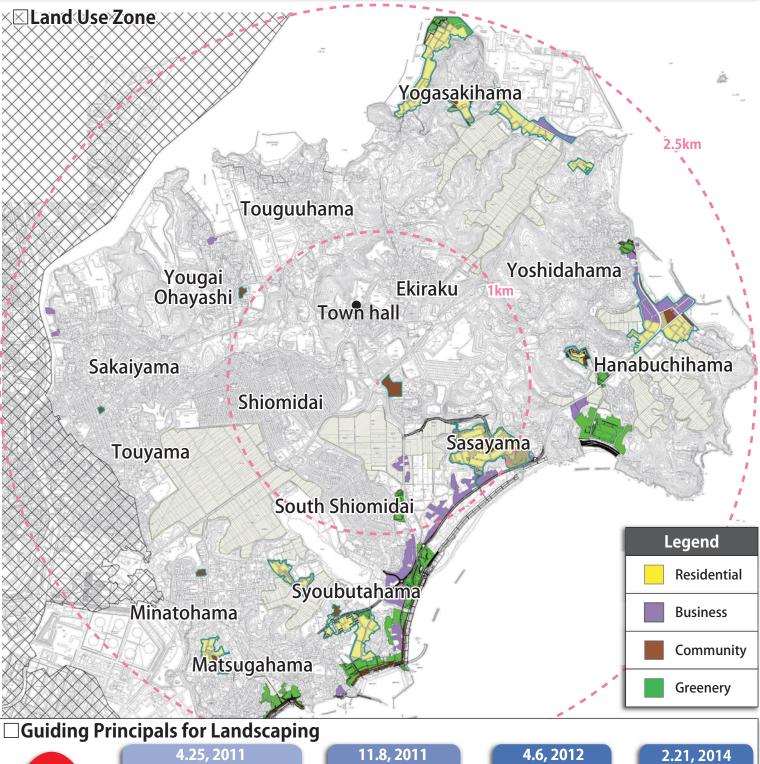
Greenery

Greenery

Figure 1

For Landscaping
Projects facilitating group relocation for disaster mitigation, disaster mitigation of livable land in the disaster-area disaster mitigation, disaster mitigation, disaster mitigation of livable land in the disaster-a

\*1 3.5ha of Red Zone area not counted \*2 Moving into disaster public housing requires fulfillment of housing prerequisites



3 11, 2011 The Great East Japan Earthquake occurred Basic Policies for Shichigahama Earthquake Reconstruction formulated

Taking into account both afety and peace of mind, the nantra "As part of a harmony with nature, build a town that's easy to live in where numans can live comfortably and like humans" established

Earthquake
Reconstruction
Plan Early Basic
Plan formulated
Based on the Disastel
Reconstruction Basic
Policies,
reconstruction
policies and
important measures
of reconstruction

formulated

Polices
regarding the
use of
disaster-affecte
d land
formulated
Established 4 rules
for land use in our
town and showed
their relation to
reconstruction
measures

2.21, 2014
The 2011-2015
Earthquake
Reconstruction
Plan Early Basic
Plan Update
and Town
Reconstruction
Land Use
Guidelines
formulated

### 3 Residential Reconstruction / Regional Reconstruction

Immediately following the disaster, the majority of victims expressed a desire for construction of residential units on elevated ground and disaster recovery public housing within the existing district limits. Those who managed to escape the tsunami safely also said they want to maintain bonds within the region and hope that residential reconstruction takes place within the town's local area. With consideration for the existing communities, the areas where construction will take place are being determined.

<b>Project Classification</b>	Sector Name	Planned Completion
Projects Facilitating Group Relocation	Matsugahama(13units)	March 2014
	2 Syoubutahama (30 units)	June 2014
for Disaster	3 Sasayama (128 units)	March 2015
Mitigation [5 sectors,	4 Yoshidahama (9 units)	September 2014
194 units]	Yogasakihama(14units)	September 2014
Disaster	1 Matsugahama (32 units)	March 2015
Recovery Public Housing	2 Syoubutahama (100 units)	October 2015
Construction	3 Hanabuchihama (50 units)	December 2015
Projects [5 sectors,	4 Yoshidahama (6 units)	March 2015
212 units]	5 Yogasakihama (24 units)	December 2015
Devastated Area	1 Syobutahama(4.1ha)	2019
Reconstruction	2 Hanabuchihama (9.8ha)	2020
Land Distributions	3 Yogasakihama Sector A(4.7ha)	2019
[4 sectors, 26ha]	4 Yogasakihama Sector B(7.4ha)	2020
	Minatohama Evacuation Shelter	January 2015
	Matsugahama Evacuation Shelter	February 2015
	Syoubutahama Evacuation Shelter	July 2015
	Sasayama Evacuation Shelter	October 2015
	Hanabuchihama Evacuation Shelter	November 2015
Evacuation Shelters,	Yogasakihama Evacuation Shelter	May 2015
Public Facilities,	Yogai & Obayashi Evacuation Shelter	August 2015
Misc. Construction	Touyama Evacuation Shelter	September 2014
Projects	Disaster Prevention Facility (Within Lifelong Learning Center)	November 2015
	Syobutahama Patrol Center	February 2017
	11 Touyama Nursery	April 2013
	School Meal Preparation Center	February 2014
	113 Tennis & Futsal Court	December 2013
	14 Shichigahama Middle School	March 2015



Syoubutahama

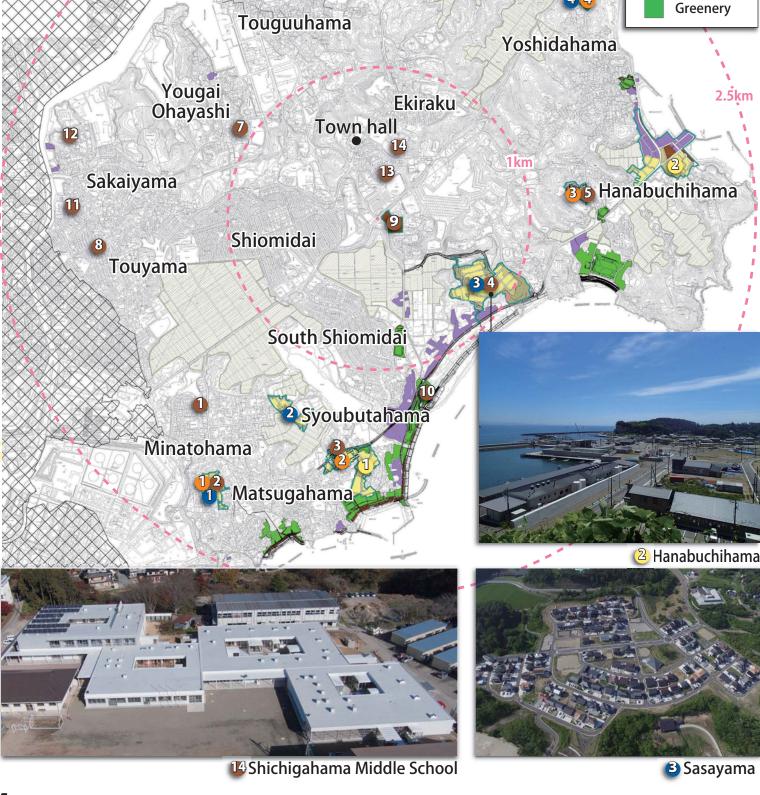
Map of planned town recovery

construction project locations









Yogasakihama

Legend

Residential

Community

**Business** 

# 4 Municipal Parks / Forest Preservations / Public Plazas

#### **□Greenery Construction Plans**

☐ Municipal Park / Forest Preservation
Part of the original land located in the low level seaside areas will be utilized in construction of a municipal park located in a tsunami safe land plot and a forest preservation project that uses lakes to protect against salt water damage. In accordance, these constructions also weaken the energy of future tidal waves and delay tsunami arrival time, as well as capture driftwood and debris, with residential areas placed in the back where their safety is boosted. Designed with cooperation from residential and business groups, the locations are assured to be prosperous community points in the region.
☐ Public Plaza Construction

Public Plaza Construction
Part of the original land located in the low level seaside areas will also be utilized in construction of public plazas. Designed with cooperation from adjacent residential and business groups, the locations are also assured to be prosperous community points in the region.

☐ Municipal Park

Location	Location Name	Area in hectare		
	Syoubutahama Seaside Park	4.3		
0	Syoubutahama Seaside Park	(1.1)		
2	Syoubutahama Seaside Park Southside	(2.1)		
3	South Shiomidai	(1.1)		
4	Syoubutahama Fishing Harbor	2.5		
5	Suwamae Grounds	0.3		
6	Omotehama Grounds	5.0		
<b>O</b>	Wariyama Grounds			
	Total	12.6		

#### ☐ Forest Preservation

Location	Location Name	Area in hectare
8	Matsugahama Preservation	1.7
9	Syoubutahama Preservation	1.0
10	Yogasakihama Preservation	0.7
	3.4	

#### **□Public Plaza**

Location	Location Name	Area in hectare
U	Yoshidahama Public Plaza	0.6
12	Yogasakihama Public Plaza	0.6
	Total	1.2



Syoubutahama Seaside Park



Syoubutahama Seaside Park Southside



**3** Syoubutahama Seaside Park from South Shiomidai



Syoubutahama Fishing Arbor



## **5 Industry Revival**

Our city's key industries are agricultural, mainly fisheries industry and rice crops, and they were devastatingly damaged by the tsunami that followed the Great East Japan Earthquake. An industrial revival focusing on that primary industries is indispensable to maintaining secure employment opportunities, helping already in the industries, and keeping the rice paddies a fixture in our townscape. In accordance with a prompt revival of industrial foundations, our citizens are working together in order to revitalize the industries that our town does best.

#### **☐** Reviving the Fisheries Industry's Foundation

We aim to guarantee employment opportunity and propel cooperation in the fisheries industry by reconstructing a shared seaweed processing facility damaged by the tsunami.

10/30/2014 - 10 buildings completed for seaweed facility 11/2014 - Seaweed facility is reopened, bidding participating

10/19/2015 - The Shichigahama Fisheries Promotion Center is completed

#### ☐ Status of our town's fisheries industry takings

(Top row is product amount, bottom row is amount sold in thousands of yen)

	1 '		
Year	Seaweed (sheets)	Seafood (tons)	
2016	107,063,800	606	compared to 2008 (117.2%)
2010	1,359,446	552,712	1,912,158
2015	107,838,500	710	(94.6%)
2015	1,065,221	477,205	1,542,426
2014	113,724,000	522	(83.4%)
2014	1,013,714	346,600	1,360,314
2012	99,162,800	301	(65.0%)
2013	788,194	272,908	1,061,102
2012	103,131,400	192	(59.8%)
2012	750,269	224,398	974,667
2011	14,989,000	184	(23.2%)
2011	152,503	225,708	378,211
2008	150,763,400	372	(100%)
(before quake)	1,228,491	402,534	1,631,025



#### ☐ Restoration and Regrowth of Agriculture

Regarding damaged agricultural land, we are tackling these issues in order to comprehensively revive and rehabilitate of the foundation of community agriculture, forestry and fisheries.

Plans regarding comprehensive rehabilitation of the foundation of community agriculture, forestry and fisheries include: land readjustment, agricultural drainage facility reconstruction, underdrainage, and construction of other agricultural facilities. 143 hectares total (122 hectares of farming land)

Plans aiding damaged agricultural land restoration include: shared drying and preparing facilities, agricultural machine and vehicle storage, and seedling preparation facilities.

#### Amount of agricultural land in our town in hectares

Year	Rice	Soybeans	Amount Total
2016	84.45	17.76	compared to 2009 (114.7%) 102.21
2015	73.98	11.94	(96.4%) 85.92
2014	54.06	1.38	(62.2%) 55.44
2013	51.51	18.47	(78.5%) 69.98
2012	1.24	4.80	(6.8%) 6.04
2009 (before quake)	76.61	12.50	89.11



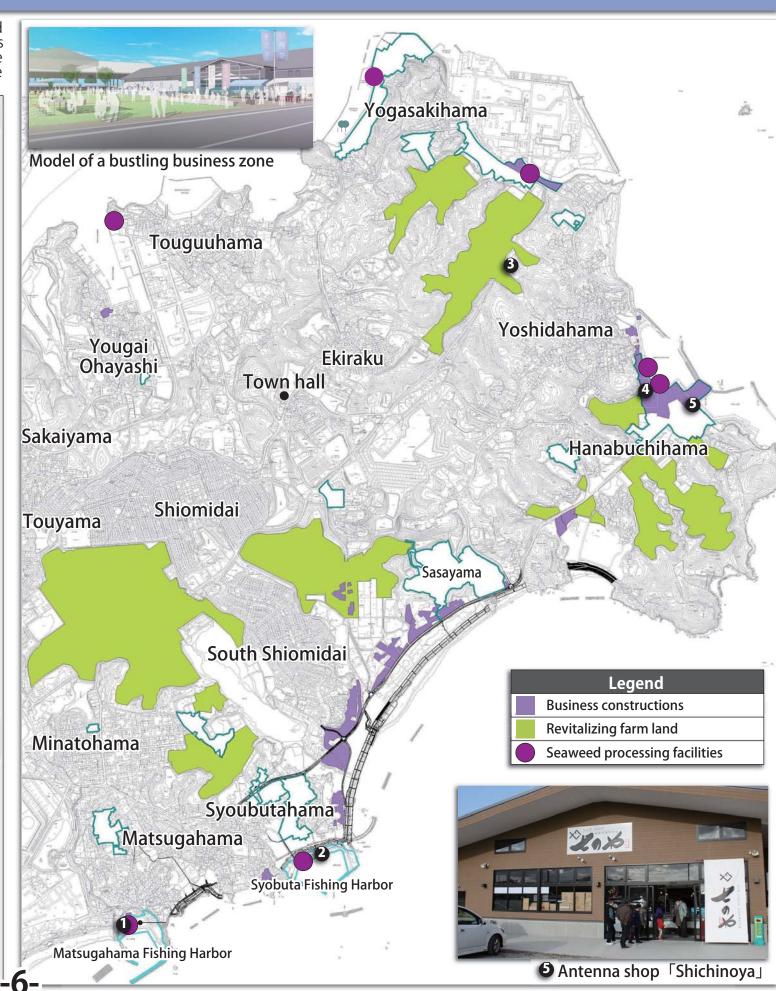
Shared drying and preparing facilities (mini rice center)

### ☐ Develop "the 6th industry" through the formation of industrial foundation

Developing the 6th industry of the fisheries industry and agriculture (produce > process > market) through local vitality, we plan to ensure employment opportunity and encourage industrial growth.



A Shared fisheries facility (facility for processing cooked seaweed)



# 6 Introduction of Industry and Promotion of Tourism

#### ☐ Plan to Introduce Industry into the Business Zone

Using the original relocation area, we are establishing our business zone as a district for promoting industry growth that will contribute to the reconstruction efforts as part of the residential, community, and greenery zones that make up the existing urban area of our town.

As a result of industrial incitement via workers in the private sector using the business zone to usher in new enterprise, prosperity created by an increase in employment security as well as the number of tourists and other exchange opportunities will accelerate our town's reconstruction

Business sector	division	Introduce Industry	Area (ha)
Agricultural production foundation improvement	Agricultural zones	Improvement of seedling houses and production of vegetables and other agricultural products by improving and maintaining fields	0.6
Business	Commercial zones	Introduce facilities to focus on tertiary industries such as stores, restaurants, and all sorts of services that comply with the district plan.	0.7
division regulation	Industrial zones	Introduce workplace facilities, warehouses, offices, and safe and e x t r e m e l y environmentally friendly factories that comply with the district plan	2.0
Business in the original relocation	Commercial zones	Introduction of stores, workplaces, offices, restaurants, etc. that comply with the planned buildings in residential districts	2.2
area (Area zoned for urbanization)	Industrial zones	Introduction of stores and safe and extremely environmentally friendly factories that would comply with the planned buildings in the industrial districts	0.3
Business in the original relocation area	Tourism zones	Introduce eateries, rest spots, recreational beaches, surfing, yachting, fishing, etc. ocean tourism-related stores etc. as developable tourism resources wherever they can be placed	6.3
(Areas where urbanization is regulated)	Industrial zones	Introduce facilities for farming, foresting, and fishing industries in urbanization-restricted areas where it is possible to build without permission	0.8
	計		12.9

