Revitalizing Higashimatsushima as a FutureCity
– Renewal of Higashimatsushima, Towards the future together without forgetting that day –
Location of Higashimatsushima City
Higashi-Matsushima is located approximately 30 kilometers northeast of Sendai City, central city of the Tohoku Region. Facing the vast Pacific Ocean, this scenic city has long been known as one of Japan’s three most beautiful sites.

The city’s population stood at 43,142 (as of March 1, 2011, according to basic resident register). Its major industries are seaweed and oyster aquaculture, as well as agriculture. Located between Sendai and Ishinomaki, it also served as the residence of company employees in these two cities, a trend that was leading to a growing number of households.
Catastrophic damage caused by the tsunami

1,097 Higashimatsushima residents dead/28 missing
As of the end of 2012
Flooding affected 65% of the city land, the largest percentage in the country

Damage to Higashimatsushima (as of the end of 2012)

- Human suffering (city residents)
  Dead: 1,097
  Missing: 28
  Total: 1,125 (about 3% of the total population)

  No. of bodies found in the city: 1,063

- Damage to homes
  Totally destroyed: 5,499 homes
  Largely destroyed: 3,054 homes
  Partially destroyed: 2,501 homes
  Total: 11,054 homes (about 73% of the total)

- Cars that floated away/sank: about 11,000

- Maximum no. of evacuees: 15,185

- Maximum no. of evacuation centers: 86
Community-building led by 8 municipal councils

- Inland municipal council assists local disaster victims
- Numerous residents participate in a reconstruction plan workshop
Establishing a reconstruction plan: exchanging opinions with 2,000-plus residents

Agree with re-location: 80.5%
Local re-building: 10.0%
Undetermined: 9.5%

Compiling the Higashimatsushima Reconstruction Plan with the guidance and advice of Expert Study-Group

Means of resolving issues

Reconstruction projects

FutureCities Initiative}

Compliance [Higashimatsushima City]

Evacuation center
Junior high school students

Collective relocation
Energy
Community
Fewer children/aging population
Collective relocation of about 3,000 households destroyed by the tsunami to seven relocation points in the city (inland and upland).

Areas slated for relocation/land slated for purchase
Total: Approximately 236 hectares

Reconstruction plan/using disaster-hit lands

- Renewable energy use/promotion plan survey project
- Emergency communications equipment project
- Urban area refurbishing coordination project
- Surveys designed to facilitate attraction of/promotion of industry
- Identifying tourism resources/PR projects
Higashimatsushima FutureCity Plan

Higashimatsushima Reconstruction Plan Lead Projects

A Safe Place to Live/A Nice Place to Live
(1) A safe environment where life is protected
(2) Comfortable housing and a compact community

Community reconstruction
(1) Reconstruction of regional dynamics post-earthquake
(2) Resolve regional issues through resident participation (fewer children/aging society, social welfare, etc.)

Perpetuating/revitalizing local industry
(1) Clarify industry reconstruction vision
(2) Bring corporate investment to the area
(3) Establish intermediate support organizations
(4) Boost cross-development of primary, secondary, and tertiary industries; restore tourism industry

Promoting distributable renewable energy sources (regional)
(1) Boost renewable energy industry
(2) Utilize sites from where people have been relocated

Higashimatsushima City FutureCity Initiative

Disaster Prevention
(1) Relocate housing to safe areas
(2) Earthquake-proofing
(3) Establish independent disaster prevention organizations
(4) Evacuation facilities

Coping with fewer children/aging society
(1) Revitalize the regional community
(2) Implement employment strategies
(3) Promote industry
(4) Promote medical care and social welfare

Environment
(1) Promote renewable energy
(2) Bring in environment-related industries
(3) Cut CO₂ emissions
(4) Utilize regional resources

Not stopping with recovery, we’re moving toward reconstruction of our communities

Revitalizing employment and industry

Utilization of land hit by the disasters

Realizing the FutureCities Initiative
Reconstruction
Revitalizing something that has deteriorated.

Recovery
Bringing something that has deteriorated back to its original state.

Recovery projects
(1) Damage recovery costs
(2) Earthquake reconstruction costs
(3) Higashimatsushima recovery project costs

Realizing a new Higashimatsushima through sustainable development
(4) FutureCities Initiative budget (Cabinet Office)
(5) Budget for environmental issues/fewer children/aging population issue (other government agencies)
(6) Private businesses
(7) Residents

New reconstruction initiatives: going beyond recovery
A plan to recycle about 97% of total

Break down and separate rubble, and remove each different type of material by category

Separate rubble into 19 categories

General rubble separation using machinery

(1) Soil & sand; (2) sludge; (3) broken-down wood pieces; (4) trees; (5) concrete pieces; (6) asphalt pieces; (7) plasterboard; (8) plastics; (9) textiles; (10) tatami mats; (11) oversized garbage (mattress boxes, etc.); (12) metals; (13) electronics; (14) glass; (15) small electronics; (16) fire extinguishers; (17) oils; (18) fertilizer; (19) compounds materials
Results of survey on Higashimatsushima residents

2012 *stratified random sampling method, total of 515 respondents

91% of residents agree to CO2 reduction initiatives

Initiatives toward a low-carbon society
- 35%: Want to take an active stance, even as an individual
- 56%: If there is an opportunity, would like to help out close to home
- 6%: Not particularly interested
- 3%: Other/no answer

Expectations on energy: 51%

Expectations of the FutureCity Initiative
- 35%: Establishment of independent distributed power sources
- 20%: Boost independent supply of renewable energy
- 20%: Community-building to cope with the super-aging society
- 17%: Employment-building through environmental industry accumulation
- 7%: Boost name recognition of Higashimatsushima City
- 1%: Other/no answer
1. FutureCity Initiative planning & revision
   • Ongoing revision as needed made to the FutureCity Initiative
     based on city promotion strategies and resident opinion
     (including allocating tasks between the city and organizations)
   • Devising a vision, grand design, master plan, schedules, etc.

2. Overall management of the Initiative
   • Individual project planning, authorization, adjustment,
     progress management
   • Open recruitment, commissioning/ordering of public projects

3. Promotion & Education
   • Providing information
     (Conferences, publicity, Website operations)
   • Educating residents on projects
   • Member recruiting, management projects
     (raising contributions)

4. Surveying, analysis, cutting-edge technology
   • Collecting and analyzing local data
   • Assessing Initiative progress
   • Implementing model projects

Nicknamed “HOPE”: higashimatsushima organization for progress and “E” (economy education energy)
Higashimatsushima Organization for Progress and Economy Education Energy: “HOPE,” a medium-term assistance organization

Coordinating between consortiums of industry, residents, and academia

Inviting “players” and providing a “playing field”

Progress management of individual consortiums/projects

Private-sector led initiatives

- Supporting members
- Companies
- Companies
- Companies
- Foundations
- Foundations
- Academic members

Private business initiatives

Role expected of HOPE

1. Overall FutureCity Initiative
   Perspective of effective implementation of the Initiative as a whole

2. Individual cities
   Individual FutureCity perspectives on initiative operations

3. Individual initiatives
   Perspective of individual project management

National, prefectural, and city administration

- National Perspective
  National (including advisory boards)
  Promotion organizations (focused assistance)

- City (regional) Perspective
  Consortiums between industry, residents, academia, and local administration

  Industry: Project implementer (initiative implementation, management)
  Residents: Individuals, NGOs, NPOs
  Academia: Universities, research organizations, local administration
  *Both in Japan and overseas

“International knowledge platform”

- Consensus on best practices
- Analysis of factors behind best practices, organizing and disseminating information in a consolidated manner
- Devise venues to exchange opinion such as international forums

Role expected of Higashimatsushima City
Higashimatsushima, example of a FutureCity

In Nobiru, which suffered catastrophic damage to flatland areas, upland areas are being created for people to relocate to.

Joint supply of biomass-generated heat and electricity

Fuel cultivation

Bringing more trees to the area

Collective housing

“School in the Forest”

Smart Pole

Public facilities used as evacuation centers, equipped with small-scale independent power sources

Renewable energy use field testing

Matsushima Natural Energy Park Concept

Disaster Area Reconstruction Initiative: Nobiru Model
Higashimatsushima approved as an Environmental Development Zone (Special Zones for Reconstruction), December 14, 2012

- Industries we seek to bring in (targeted industries)
  
  (1) **Renewable energy-related industries (electric power/heat supply)**
  
  Efficiently utilize land flooded by the tsunami to draw renewable energy industries

  (2) **Tourism-related industries (tourism, accommodation, etc.)**
  
  Drawing on Matsushima’s natural environment and collaborating with primary industries, work to bring in tourism

  (3) **Commercial industries (retail, services, etc.)**
  
  Bring in commercial industries to make life more convenient for residents subsequent to collective relocation (part of disaster prevention measures)

  (4) **Food and beverage suppliers (agriculture, food and beverage manufacturers)**
  
  Bring in food and beverage industries in order to create new industry with a view to reconstruction.

In order to facilitate employment creation in areas where employment was hard-hit by the disaster, special incentives are offered on national and regional taxes to companies (newly set up in or expanding on business in the Industry Reconstruction/Accumulation Zone) that hire disaster victims,