Matsuyama City

Initiatives for developing human resources toward enhancing community disaster prevention capabilities

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Matsuyama Castle

Urban Resilience Practices from Northeast Asian Cities

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Need for voluntary disaster prevention activities

Jan. 1995: Hanshin-Awaji Great Earthquake
Oct. 2004: Chuetsu Earthquake
Mar. 2011: Great East Japan Earthquake
Apr. 2016: Kumamoto Earthquake

- Fires and collapsed buildings ⇒ Cannot be handled immediately
- Roads are damaged and collapsed buildings obstruct the roads
  ⇒ Makes it difficult for emergency vehicles to get through
- Phones do not work ⇒ Cannot call the fire department or police
- Water supply fails due to water pipe damage ⇒ Cannot fight fires
- Large earthquake occurs ⇒ Staff of municipal offices and disaster prevention organizations are afflicted as well

Initial fire extinguishing, rescuing buried people, attending to the injured, etc.
People in the community can help reduce damage and casualties
Training ‘Bousaisi’ (Disaster Prevention Personnel) In Cooperation With Local Universities

- Training residents as disaster prevention leaders - all costs for taking relevant courses are covered by the city (public funding).
- Training people in various occupations as bousaisi, such as elementary and junior high school teachers and employees of companies that have a disaster assistance agreement with the city. All costs are also covered by public funding.
Bousaisi binding the community together
(Enhancement of community-based disaster prevention capabilities)

- Local Bousaisi cooperating in disaster prevention activities

[When torrential rain occurred in July 2018]
- Assisted evacuating residents, managed evacuation centers
- Acted to minimize damage and casualties

<table>
<thead>
<tr>
<th>City name</th>
<th>No. of Bousaisi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matsuyama (core city)</td>
<td>6,266</td>
</tr>
<tr>
<td>Oita (core city)</td>
<td>3,571</td>
</tr>
<tr>
<td>Sendai (designated city)</td>
<td>2,851</td>
</tr>
<tr>
<td>Kochi (core city)</td>
<td>2,655</td>
</tr>
<tr>
<td>Yokohama (designated city)</td>
<td>2,352</td>
</tr>
</tbody>
</table>

Voluntary disaster prevention organizations: 2,013 people
Elementary and junior high schools: 362 people
Kindergartens and nursery schools: 86 people
Children’s clubs: 97 people
Post offices: 42 people
Welfare shelters: 153 people
Disaster assistance businesses: 74 people
High School: 13 people

University Student Disaster Prevention Leaders Club: 1,007 people
Train Bousaisi from Ehime University, as well as from four universities and two junior colleges in Matsuyama

Private sector personnel: 2,813 people

Local disaster prevention capabilities are enhanced through cooperation between Bousaisi from diverse occupational backgrounds and generations.
Annual Bousaisi Workshop (Feb. 2017)

This annual workshop is for improving the skills of Bousaisi staff.
Around 250 Bousaisi and voluntary disaster prevention staff members participated.
Annual Female Bousaisi Meeting (2018)

This annual meeting is for promoting interaction among women and developing their knowledge. Last year, female Bousaisi from Matsuyama and Saijo got together (approx. 60 participants).

Learning about disaster prevention through interaction with Bousaisi from neighboring cities
Participation of Private Companies In Local Disaster Prevention

Distributing certificates (plates) to companies that trained Bousaisi

More than 300 private companies in Matsuyama trained Bousaisi and contributed to local disaster prevention activities
### Total no. of casualties in Ehime (death directly caused by the disaster)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Casualties, missing people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matsuyama</td>
<td>4</td>
</tr>
<tr>
<td>Imabari</td>
<td>2</td>
</tr>
<tr>
<td>Uwajima</td>
<td>11</td>
</tr>
<tr>
<td>Ozu</td>
<td>4, 1</td>
</tr>
<tr>
<td>Seiyo</td>
<td>5</td>
</tr>
<tr>
<td>Kihoku</td>
<td>1</td>
</tr>
<tr>
<td><strong>Ehime</strong></td>
<td><strong>27 person died, 1 person missing</strong></td>
</tr>
</tbody>
</table>

### Damage and injuries in Takahama

<table>
<thead>
<tr>
<th>Damage/injury</th>
<th>Breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential house</td>
<td>Completely destroyed: 3</td>
</tr>
<tr>
<td></td>
<td>Severely destroyed: 6</td>
</tr>
<tr>
<td></td>
<td>Partially destroyed: 2</td>
</tr>
<tr>
<td></td>
<td>Partially damaged: 3</td>
</tr>
<tr>
<td></td>
<td>Inundated above floor: 11</td>
</tr>
<tr>
<td></td>
<td>Inundated below floor: 88</td>
</tr>
<tr>
<td>Non-residential house</td>
<td>Completely destroyed: 2</td>
</tr>
<tr>
<td></td>
<td>Severely destroyed: 1</td>
</tr>
<tr>
<td></td>
<td>Partially destroyed: 1</td>
</tr>
<tr>
<td></td>
<td>Inundated: 21</td>
</tr>
<tr>
<td></td>
<td>Partially damaged: 2</td>
</tr>
<tr>
<td>Injured people</td>
<td>2 (severely injured)</td>
</tr>
</tbody>
</table>
Torrential rain of July 2018  Takahama, Matsuyama
Torrential rain of July 2018 Takahama, Matsuyama
[Torrential rain of July 2018]

- Debris flows and landslides at 35 sites in the area
- **11 residential houses completely/partially destroyed**
- Volunteers visited each house, leading to early evacuation
- The community helped save precious lives

- Annual emergency drill in cooperation with the fire department, police, and schools (over 1,000 participants)

Community members know each others’ faces

People react to others in the community

The community helped save lives
University students bringing the community together
Matsuyama City and Ehime University
Training Bousaisi

103 university students became Bousaisi in 2015
1,005 university student Bousaisi as of FY2020
Activities of the Disaster Prevention Leaders Club
(local activities)

- Participating in local conferences
- Holding the Disaster Prevention Leaders Club Workshop
- Participating in flood-fighting method training
- Assisting at disaster prevention symposiums
Activities of the Disaster Prevention Leaders Club
(activities at disaster-stricken areas)

Surveying areas afflicted by the Kumamoto Earthquakes

Volunteering activities at disaster-stricken areas
Activities of the Disaster Prevention Leaders Club (disaster prevention education)

Disaster prevention patrol

Creating hazard maps

Publishing hazard maps
First all-generation disaster prevention education program in Japan

- **March 2019:** Concluded an agreement with Ehime University and the University of Tokyo Utilizing the expertise of both universities for disaster prevention education
- **May 2019:** Established the Matsuyama Council for the Promotion of Disaster Prevention Education

Mayor’s pledge: Realizing the development of disaster prevention leaders from elementary school students all the way up to the elderly

**Industry-government-academia-citizen cooperation**

Considering ways to promote all-generation disaster prevention education

Creating disaster prevention education programs for respective occupations and generations

Training disaster prevention leaders via a seamless disaster prevention education program
Japan’s First: Next Generation Disaster Prevention Education

Establishment of Ehime University-Matsuyama City Bosai Leaders Training Center
Collaboration between Ehime University and Matsuyama City
Call for Registrations!

Web site: https://Matsuyama-bltc.com/

Youtube: 「Matsuyama City Bosai Leaders Training Center」

Facebook: 「Matsuyama City Bosai Leaders Training Center」
Seamless Disaster Prevention Education Training

Lower elem.
身近な人と一緒に自分の命を守ることができる
科学的・論理的知識・理解
社会の仕組み

Mid-higher elem.
自分の命を守るとともに地域の一員として進んで行動することができる
自他の命
社会への貢献
自助・共助・公助
社会づくり

Jr. Bosai Leader
家庭・地域防災を学ぶ小中高生クラブ

Student Bosai Leader
防災実践活動を行う大学生リーダー

Bosai Educator
地域防災・学校防災のリーダー

Jr. H.S.
自分の命を守るか自発的に考え行動することができる
自他の命
社会への貢献
自助・共助・公助
社会づくり

H.S.
一人一人が知識と行動力を持つ

Univ.

Bosai Educator

Pvt. Sector
BCPの作成につながる

Social Welfare
福祉施設の災害時のマニュアル作りにつながる

Comm. DRR Assoc.
組織の成長段階に合わせてレベルアップにつながる

Foreign residents
松山の在住外国人が安全に身を守る

School Teachers
学校の安全性を高め、学校で犠牲者を出さない
Junior Bosai Leader Club
We will protect our own future!

**Activities of FY2020**
- Launching program
- Bosai Day Camp
- Bosai Town Walking
- Junior Bosai Certification
- Reporting event

**Registered**
- Elem. 24
- Jr. H.S. 21
- H.S. 54

**Area Register.**
- Takahama
- Horie
- 200

More than 300 leaders of elem. school, Jr. H.S. and high school
Student Bosai Leader Activity

- Community Bosai Training
- Senior Bosai Leader's Program
- High School Bosai Program
- Town walking
- Elementary School Bosai Camp hosted by Father’s Club
- Teacher’s Training
Evacuation center training game for 6th graders at Matsuyama City Futaba Elementary School
Glocal (Bosai) education at Matsuyama Higashi High School
Evacuation center training at Shinonome Women’s University
Nationwide volunteer activities at disaster zones and damage assessments

Damage assessment after Kumamoto earthquake

Volunteer activities

Great East Japan Earthquake damage

Exchange at disaster zones ~ Tohoku region ~
Bosai training for international participants
Starting from Asia for global outreach
Thank you for listening.