

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



City name	No. of Bousaisi
Matsuyama (core city)	6,266
Oita (core city)	3,571
Sendai (designated city)	2,851
Kochi (core city)	2,655
Yokohama (designated city)	2,352

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

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

Torrential Rain of July 2018

Takahama, Matsuyama

Total no. of casualties in Ehime (death directly caused by the disaster)

Municipality	Casualties, missing people
Matsuyama	4
Imabari	2
Uwajima	11
Ozu	4, 1
Seiyo	5
Kihoku	1
Ehime	27 person died, 1 person missing

Damage and injuries in Takahama

Damage/injury	Breakdown
Residential house	Completely destroyed: 3
	Severely destroyed: 6
	Partially destroyed: 2
	Partially damaged: 3
	Inundated above floor: 11
	Inundated below floor: 88
Non-residential house	Completely destroyed: 2
	Severely destroyed: 1
	Partially destroyed: 1
	Inundated: 21
	Partially damaged: 2
Injured people	2 (severely injured)

Torrential rain of July 2018 Takahama, Matsuyama



Torrential rain of July 2018 Takahama, Matsuyama



Takahama Voluntary Disaster Prevention Association (June 6, 2019)

Award for Distinguished Service in Landslide Disaster Prevention

(Awarded by the Minister of Land, Infrastructure and Transport)

Distinguished Service Award for Disaster Prevention

(Awarded by the Cabinet Office of the Prime Minister of Japan)

[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

愛媛大学防災リーダークラブ結成式



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

愛媛大学防災リーダークラブ結成式



防災リーダークラブ第二期生 結成式



Activities of the Disaster Prevention Leaders Club (local activities)

Participating in local
conferences



Assisting at disaster prevention symposiums



Holding the Disaster Prevention
Leaders Club Workshop



Participating in flood-
fighting method training



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



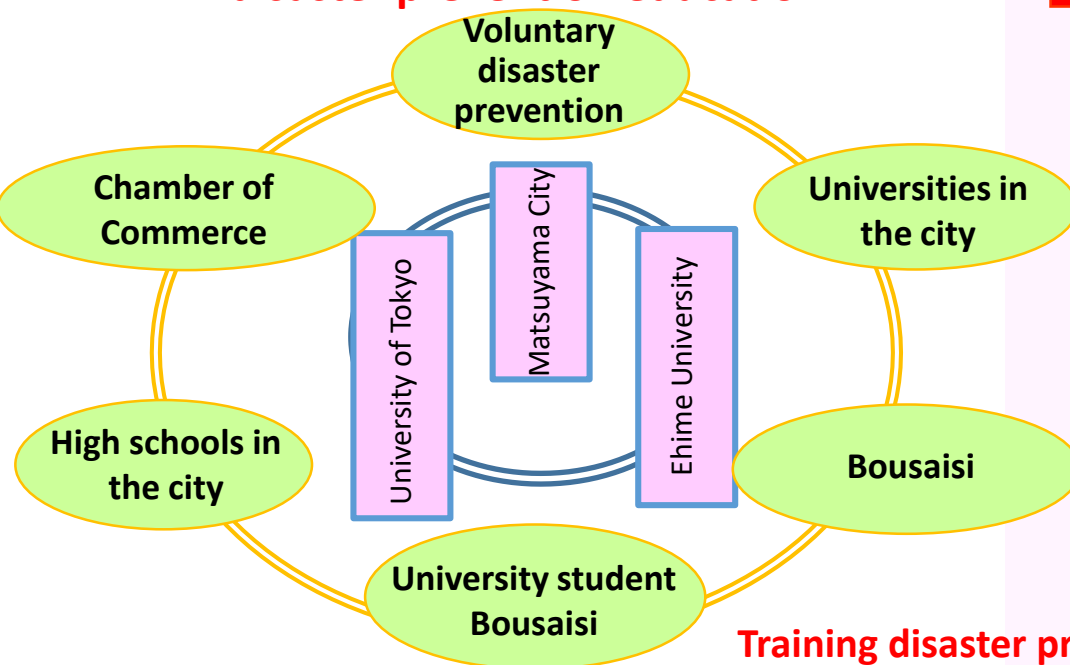
First all-generation disaster prevention education program in Japan

- **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

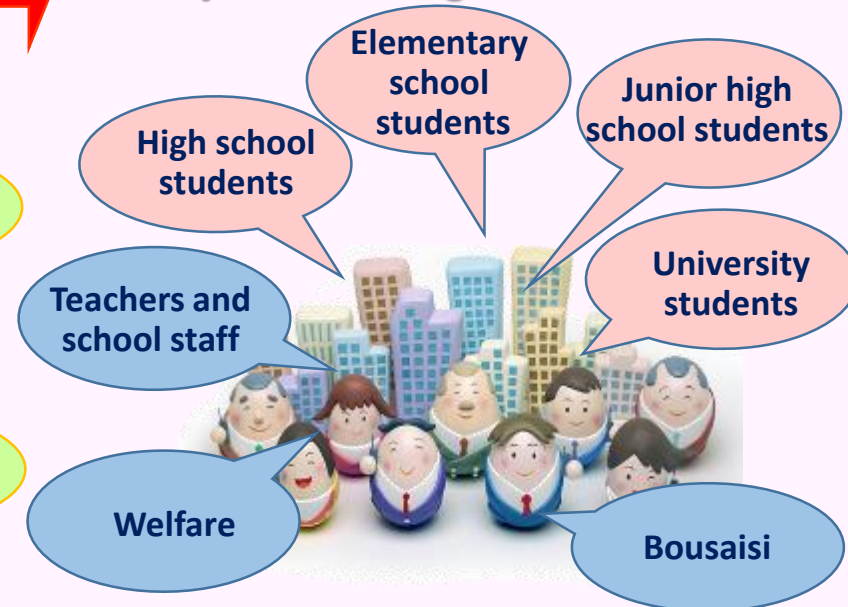
Mayor's pledge: Realizing the development of disaster prevention leaders from elementary school students all the way up to the elderly

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

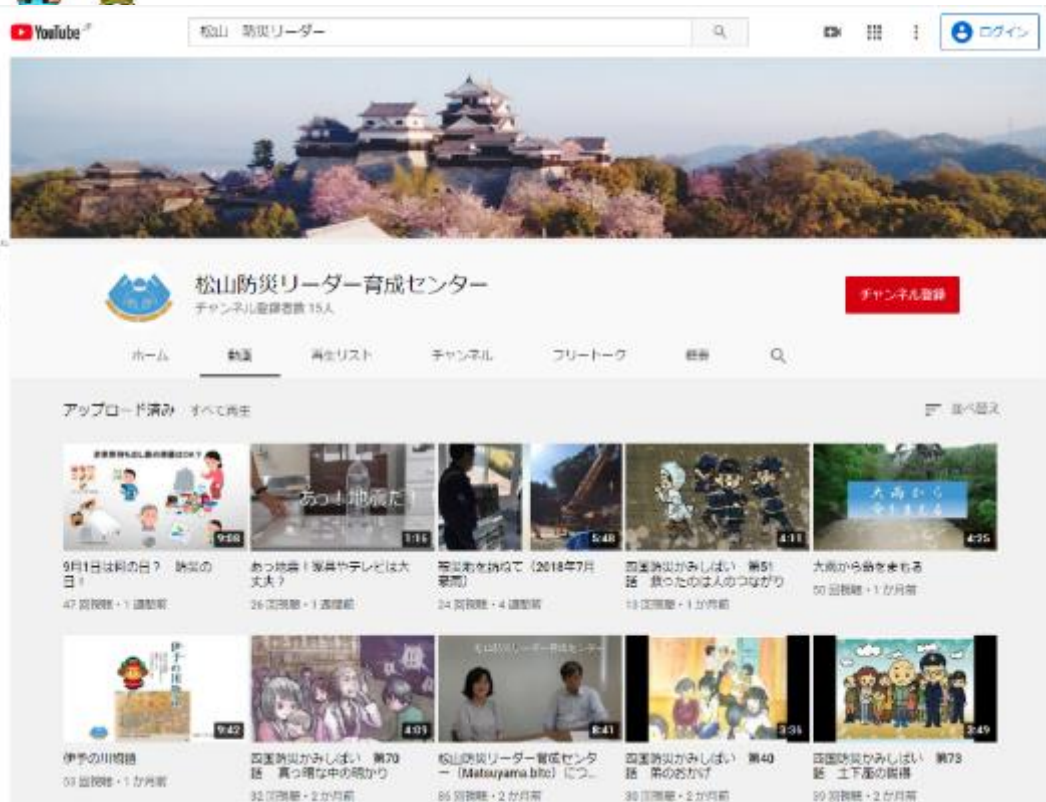
Japan's First: Next Generation Disaster Prevention Education



**Establishment of
Ehime University-Matsuyama City Bosai
Leaders Training Center
Collaboration between Ehime University
and Matsuyama City**



Call for Registrations !

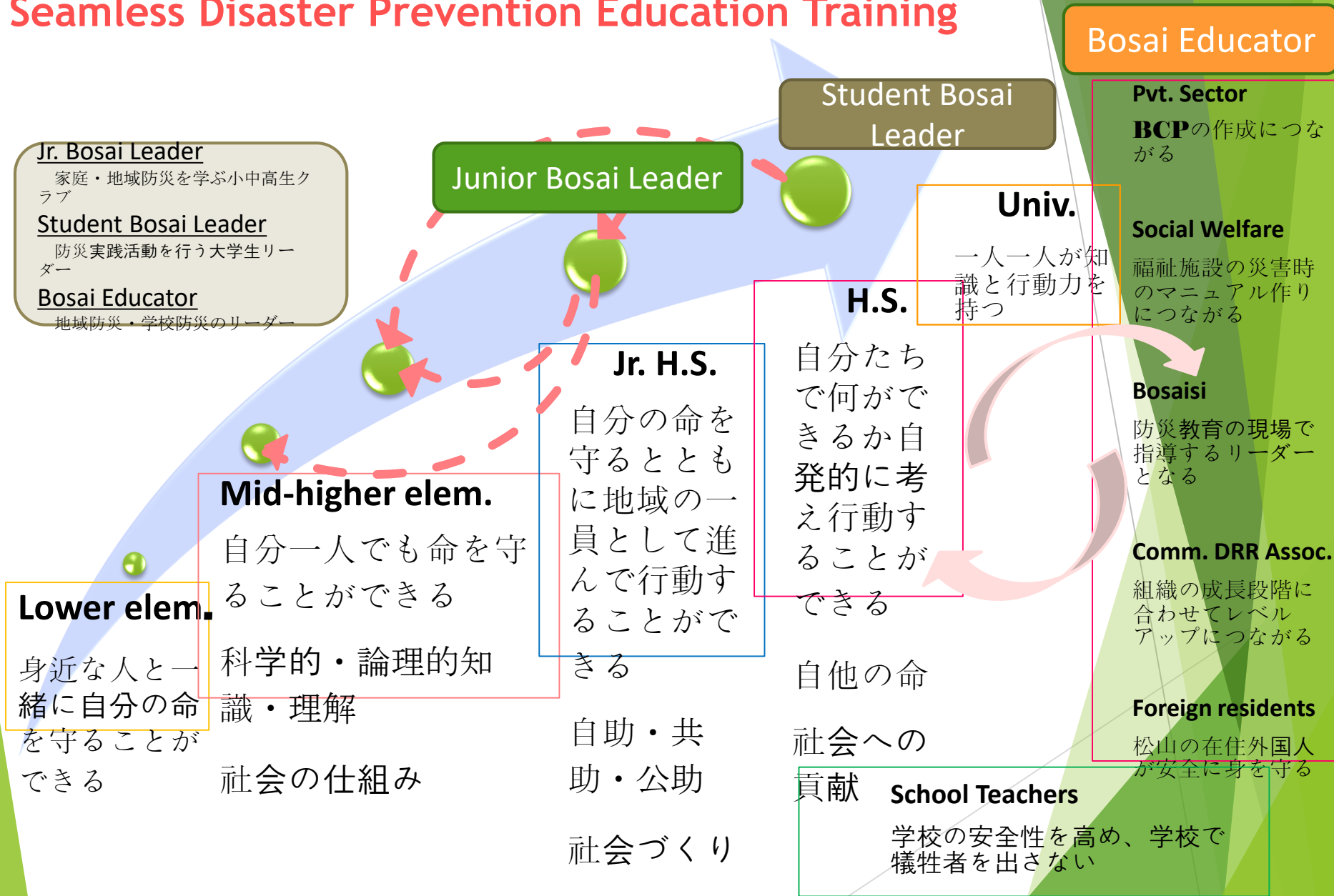


Web site:
<https://Matsuyama-bltc.com/>

Youtube:
 「Matsuyama City Bosai Leaders T Center」

Facebook:
 「Matsuyama City Bosai Leaders Training Center」

Seamless Disaster Prevention Education Training





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 Regist.
Takahama
Horie
200



More than 300 leaders of
 elem. school, Jr. H.S. and
 high school

Student Bosai Leader Activity



Town walking



Community Bosai Training



Senior Bosai Leader's Program



Elementary School Bosai Camp hosted by Father's Club

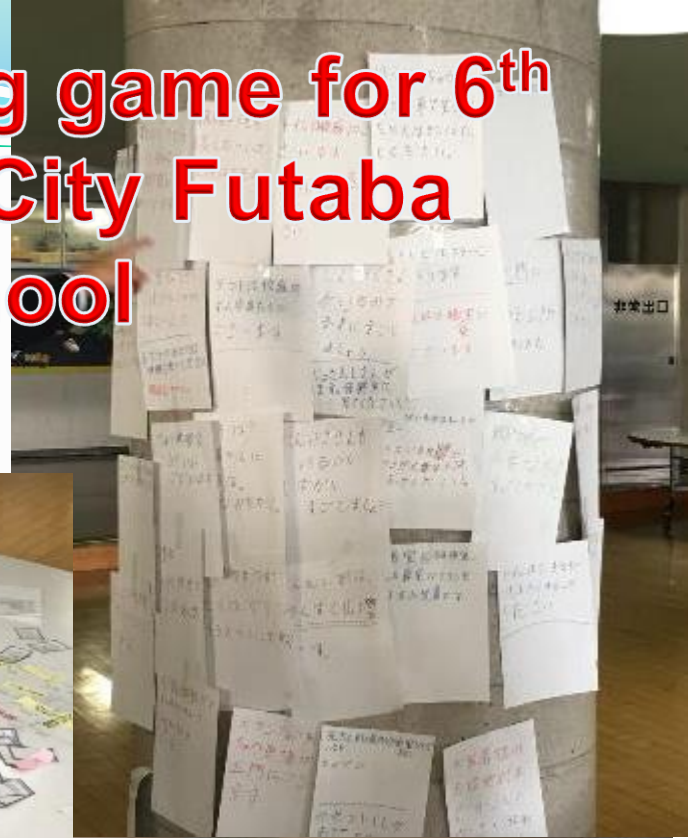
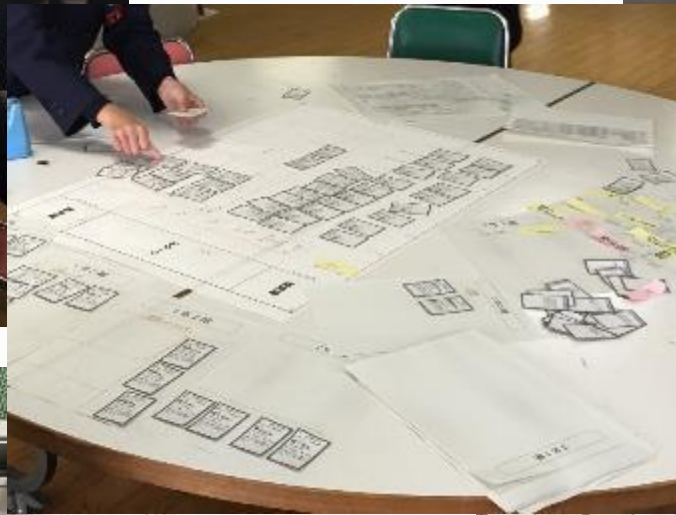


Teacher's Training

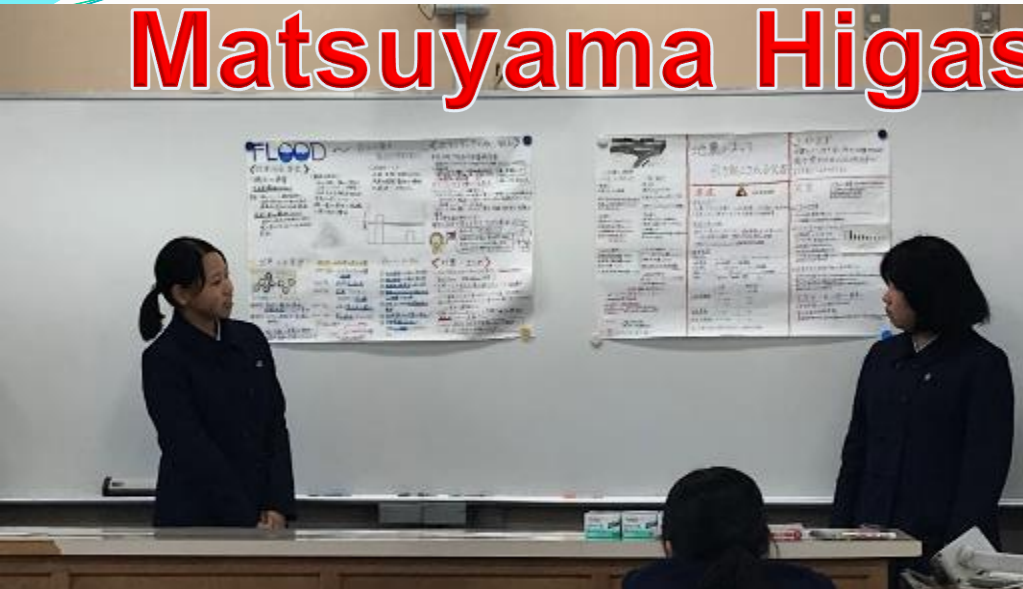


High School Bosai Program

Evacuation center training game for 6th graders at Matsuyama City Futaba Elementary School



Glocal (Bosai) education at Matsuyama Higashi High School



日本と世界の地震

マグニチュード6.0以上の地震回数

日本 世界

見様

マグニチュードランキング

順位	地震名	マグニチュード
1位	M9.0 東日本大震災	9.0
2位	M8.5 明治三陸地震	8.5
3位	M8.4 昭和22年地震	8.4
5位	M8.2 千島列島地震	8.2

震度7の地震
阪神淡路大震災
東日本大震災
新潟中越地震
能登地震
北海道胆振東部地震

世界の地震ランキング

順位	地震名	マグニチュード
1位	チリ地震	9.5
2位	スマタラ地震	9.2
3位	スマタラ地震	9.1
4位	東日本大震災	9.0
5位	カンガロ地震	9.0

日本の地震の回数が多いのは、プレート境界にあり、マグニチュード6.0以上の地震は、日本では約30回以上、世界では約200回以上。

対策

耐震性の向上
・新築住宅の耐震性の向上
・既存住宅の耐震性の向上
・地震保険の加入
・地震保険料の軽減
・地震保険料の軽減
・地震保険料の軽減

日本の技術

緊急地震速報
新地震観測技術
地震保険
地震保険料の軽減
地震保険料の軽減
地震保険料の軽減

対策

地震保険料の軽減
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参加者

地震保険料の軽減
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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.

