



### Providing geospatial information for disaster mitigation (GIDM) as historical disaster data

Natural disasters have left their traces on topographic features of the land and have deep relations with its history. Knowing geospatial information for disaster mitigation (GIDM) composed of topographic characteristics information (including land history) and disaster history information and understanding the local disaster risks will lead to appropriate evacuation behavior. GSI compiles GIDM and provides it on the "GSI Maps" web page to the public. GSI also creates web contents to make GIDM more accessible to the public and holds presentation meetings for pedagogues to contribute to promoting disaster mitigation and geography education.

**Monument of Great Flood of 1893**  
The levees of two rivers were destroyed by the typhoon in October 1893. It is reported that more than two hundred people died by the great flood, and the height of the monument shows the water level reached at that time.  
at the **Genpukuji Temple** in Kurashiki, Okayama  
Photo: Okayama River Management Office, Chugoku Regional Development Bureau, MLIT

**A natural disaster monument**

**A former river channel (submergence and liquefaction risk)**

**A floodplain (submergence and liquefaction risk)**

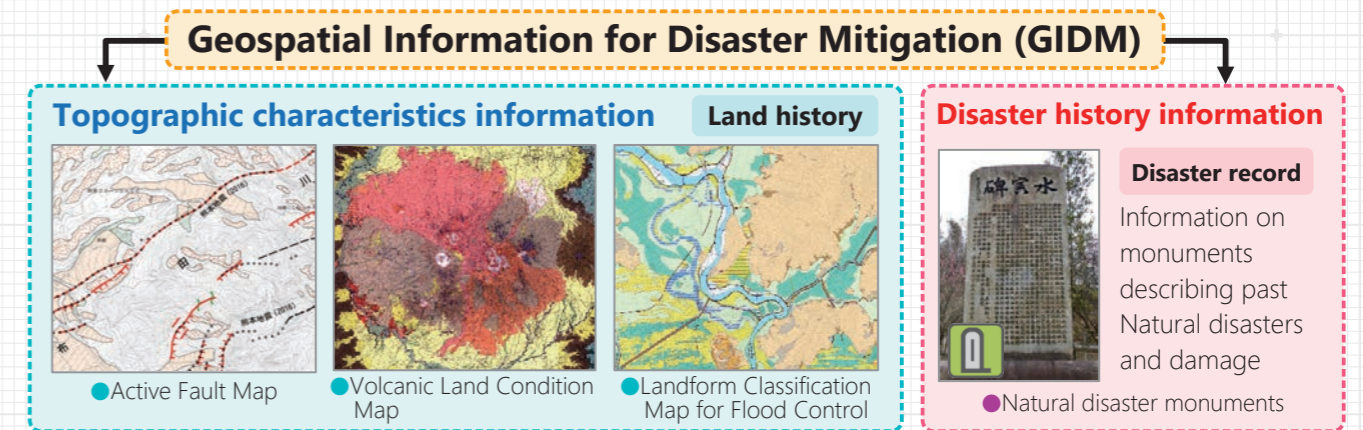
**Submergence occurred on floodplains and low-lying areas**

A flood caused by Heavy Rain Event of July 2018 and geospatial information for disaster mitigation

### Three axes of activities for disaster-prevention preparedness

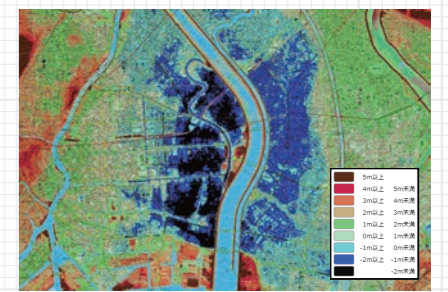
#### Geospatial information for disaster mitigation as preparedness

GSI has accumulated GIDM composed of **disaster history information** (including natural disaster monuments) and **topographic characteristics information** (concerning land history). The information can serve as documents for getting a general idea of local disaster risks.



#### Geospatial information for protecting human lives from disasters

The "GSI Maps" on the web contain geospatial information (topographic maps, photographs, elevation, landform classification and disasters) compiled by GSI and have various functions useful for disaster mitigation. The information is available for considering disaster mitigation measures and raising inhabitants' awareness about disaster through disaster education. The "Self-made colorized elevation map" function, for example, allows you to create your original elevation maps. It can show detailed topographies and ranges of "under-zero-meter" areas, and those are useful for identifying submergence risk.



"Self-made colorized elevation map" of eastern area of Tokyo

#### Assistance for disaster mitigation and geography education

GSI is engaged in various educational activities including update of the "Toolbox for Geography Education" web contents, organization of presentation meetings for school book publishers, operation of the "Active Faults School" for university students, organization of the "Exhibition of All Japan School Children's Excellent Mapping Work" and other disaster-related support and educational activities.



#### Hazard Map Portal Site - providing useful natural disaster risk information

GSI is operating Hazard Map Portal Site to provide easily accessible information on local natural disaster risks and evacuation sites. The functions available at this site include that of superimposing natural disaster risk information such as flood and landform classification maps showing the topographic features on maps or photographs (left figure) and that of searching desired hazard maps created by municipalities (right figure).

GSI has distributed its publicized information at the websites to research institutes, private companies and public agencies in the form of electronic data.

Natural disaster risk information superimposed on topographic map

Search window for municipal hazard maps

Visit the portal website: <https://disaportal.gsi.go.jp/>