

⑧(畔田班)

Visualizing Safety in the Hiyama Area with GIS ~ Flooding of Yamashita Pond, AEDs, and Fire Hydrants~

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Abstract

The Hiyama district of Tatsuno City, where Tatsuno High School is located, has a high percentage of vacant houses, but is also a newly developed residential area. Our research theme are to visualize the problems facing the Hiyama area using GIS.

1 Assumed inundation area in the event of Yamashita Pond collapse

A shapefile of the assumed inundation area at the time of the Yamashita Pond collapse, created by Hyogo Prefecture, was superimposed on the assumed inland flooding area (created by 76 students) and an old map (1926).

2 Distance from AED location

The AED location data published by Tatsuno City was incorrect and was revised to the correct data. Then, the distance from the AED location was visualized by Internet analysis.

3 Extent of hose extension and water discharge along the road from the fire hydrant

The fire department did not have digital location data for the hydrants, so fieldwork was conducted to generate the data. Then, the extent to which the hose in the hydrant box could extend and discharge water was visualized.

View

Theme 1: Consider specific countermeasures in the event of a Yamashita Pond collapse.

Theme 2: Consider the installation of AEDs.

Theme 3: Risks not within the reach of water discharge, such as old wooden buildings, and elderly people. We would like to visualize the risk by adding factors such as old wooden buildings, houses with only elderly people, and vacant houses to the GIS map.

References

Hiyama Community Association, Nishi-Harima Fire Fighting Association
Tatsuno Fire Station, Tatsuno City Community Development Promotion Division,
Agricultural Land Development Division, Industry Department, Tatsuno City