

A case study for Using Geographic Information To Support A Sustainable community in Mountainous Area

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We discuss the method to require and using personal information of residents for their safety confirmation at the time of disaster and confirm to attend the usual event. Without concrete or detailed personal information of residents, administrative agencies can't deal with resident's safety sufficiently. Therefore, local resident communities as well as administration should do work of safety confirmation at evacuation centers, and be experienced, in advance, in administrative systems like something (e.g. GIS) that authorities use. However, administration may not have the latest resident information, and it is very difficult, in general, for local communities to handle it.

Additionally, it is pointed out not to be able to use an enough profit by other researches at the disaster when these information is operated only due to the disaster. In the present study, it paid attention to the information gathering of the safety confirmation at the disaster and the activity support in normal circumstances and uses.

In our preliminary study, we have explained necessity of maintenance of personal information to a local resident community, and made a database of acquired resident information after having them be convinced. It is of great significance that local resident communities continue to manage their information and turn to practical use.

Our study area is a small community of Taiki town in the southern part of Mie Prefecture, Japan, with the population of about 600, where many residents are involved in agriculture and cattle production. After pre-explanations of meaning and necessity of investigation to the community from the town administration, we collected resident's information as preparations of an emergency drill.

On-site interview investigations by our students were finished smoothly in only two days, supported by the community board members who know household locations and personal information well, and we had residents leave to get personal information of the community residents in about 80% (161 of 212 families and 550 of 647 persons). This investigated dataset was actually applied in an emergency drill to demonstrate the effectiveness of detailed personal information. More cooperation from the community will give more effective data available, and these databases can be utilized for various purposes such as safety confirmation at the time of disaster and sustainable community building by the residents themselves.

In our next action after the disaster drill, we have researched about usual event in this area. We made a confirmation system for attendance by using personal information. After that, they can check for attendance accurate and quickly. They made to aware about importance to maintaining personal information. We confirmed to using geographic information to support a sustainable community.