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"Disaster Risk Information Platform" -Advancement/Distribution/Utilization of Information for Disaster Preparation-

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In order to mitigate the damage caused by natural disasters, it is very important to increase residents' awareness and promote individual resident's preparatory action. To achieve this objective, the project develops a platform "Disaster Risk Information Platform (Bosai-DRIP)" that can provide disaster risk information to individuals in such a way that they can recognize and manage disaster prevention measures as realistic as possible.

One of the main purposes is to develop a variety of approaches to utilize disaster risk information system which can assist the general public and local communities not only to evaluate their own disaster risks but also to develop and implement preventive measures in their localized interoperable environment. This is done by accessing hazard data (hazard maps, etc.) and other risk information (including risk maps for expected damage and/or risk levels) regarding various types of multiple disasters compiled by administrative agencies, research institutions, and other regulatory organizations.

Among the systems targeted for the general public, there is one system to assist individuals in designing their future life plans in case of disaster emergencies by considering their own socio-economic circumstances, life stages, and life events, drawing on public aid and private-sector services and products along with official information on disaster relief and recovery acts during emergencies. This research also aims to develop a system to disseminate essential hazard and risk information and multifarious information needed for taking risk reduction actions on an anytime- and anywhere- basis in line with their own day-to-day living activities.

For local communities, a system will be developed for them to create disaster prevention maps tailored to their local conditions. The system helps the communities' voluntary disaster prevention associations, evacuation area operation council, and other parties to create their own maps by adding information, such as life safety resources (shelters, disaster protection materials and equipment, nongovernmental technical experts) in the community as well as perceived danger locations and shared experiences of disaster damage along with information on near-miss accidents, to official hazard and risk maps published by governments and specialists. In addition, a system will also be developed to produce a set of possible scenarios on emergency measures, restoration works, reconstruction efforts, etc., in time-sequential order based on damage anticipated in the community's area by using as reference, information including disaster cases and people's accounts of disaster events they have experienced.

The risks of natural disasters vary depending on the fragility (physical, societal) of the general public and local communities that could be affected. There is no optimum disaster prevention measure that is common for all individuals and communities. The society that we are aiming for is "a society where each individual and each community independently carries out its own disaster risk management." In other words, a society in which the "empirical-knowledge" obtained from disasters of the past, "specialists'-knowledge" obtained through surveys of disaster damage and research, and "self-knowledge" are combined to produce "reconstructed self-knowledge" which constitute its own coping capacity to natural disaster.

We have been working on the project for 3 years. In this session, we introduce and demonstrate some systems we developed and various case studies.

Keywords: Disaster Risk Information, Disaster Preparation, Disaster Prevention, Disaster Reduction, Disaster Mitigation, Information System