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# Web database system for disaster reduction technologies: Disaster Reduction Hyperbase -Asian Application- (DRH-Asia)

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Asian region has been damaged by various kinds of natural hazards. On the other hand, measures against disasters have various kinds. Some technologies are developed based on scientific studies and are prepared aiming at forthcoming disasters. (This means that the technologies are not implemented yet and the actual effects are not realized.) Some other methods have been applied to reduce disaster risks and the actual effects were verified. There are many successful cases to save or guard elements, such as human lives, infrastructure, information networks, and cultural heritages. The characteristics of these technologies are based on not only high-tech but also the traditional way and local culture. These "technologies", however, might not be known in other regions although they are effective. So it is important to share information on such effective technologies all over the world.
'How can we collect "Good Practices"?' An effective and appropriate database of such technologies is necessary. The original background and applicability of technologies are different from each other. So we made a template, which can be utilized to describe information on any technologies for any natural hazards in same format. This template, named DRH Template, includes not only scientific and technical terms but also necessary items for the actual application, such as resources and costs. By using this template, we can compare various technologies by same criteria and anyone can find suitable technologies for their purpose in various disasters from one database.
And one more thing that is important for collecting good practices is "Facilitation". It looks like a review process in peer-review journals. Existing disaster reduction technologies are often applied as case studies to past individual disasters and do not contain the information to apply them to another (forthcoming) disasters. It is important that the disaster technology proposers and other specialists discuss on the technologies in order to brushing-up them. It is the Facilitation process.
To realize these concepts, we have developed a web-based database system, named Disaster Reduction Hyperbase (DRH) Web-system. On this system, a whole process of receiving proposed contents, all facilitation process, publication of accepted contents on Internet are conducted in one system. The URL of this site is http://drh.edm.bosai.go.jp/.
This system has three fundamental functions; 1) Database (an open and interactive database of implementation technologies), 2) Forum (a forum for facilitating proposed technologies, and a place for discussion on the technologies), and 3) Links (Links to relevant initiatives). In the Database, all contents passed through the facilitation process are opened to public. Anyone can find contents from the list page. An advanced search function is also available. In each content page, common format header, contact information and main body of the technology are shown. Figures and pictures can be inserted to the body, and any other files (PDF, PPT, movie, application, etc.) can be attached to the content. Each content has an individual Forum (BBS), and a registered user can make a discussion on the content. In the Forum, the registered users can post their disaster reduction technologies by filling the template form on the website. The system has a unique function, by which the users can upload an Excel file for filling the template. The Links is not only a usual links page, but also it is more dynamic one. The registered users can add their

initiatives' information by filling a form. The information will be reflected in the site automatically. And the users can make links to the initiatives' information in their individual websites by only copying and pasting the "syndication script". This system has more various features. We welcome your access to our website, and we are waiting for the proposal of your disaster reduction technologies.

Keywords: Web-based database, Disaster reduction technologies, Implementation technologies, Facilitation, Links