

Digital Earth as a communication platform for Future Earth

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As we can see in problematique, such as environmental issues and disasters, the various risks we face at both local and global scale are all interrelated to each other, and also tend to suddenly emerge at very local level. Conventional science has only been able to deal with parts of these problems. The first step to build a sustainable and disaster resilient society is to monitor, identify, store the data of phenomena on the earth, then process and interpret the raw data, turn them into understandable information to display, publish and distribute. We must share a common recognition of the issues. Therefore we need the Digital Earth (DE) that is a virtual representation of our planet on the internet, and enables a person to explore and interact with the vast amounts of natural, socio-economic and cultural information gathered about the earth. These infrastructures are using for the ESD (Education for Sustainable Development) that focus on systems thinking, critical thinking and holistic views. The Digital Earth can also facilitate collaborative, data-intensive studies for problematiques of Future Earth Project in the 21st century

It was reviewed Digital Earth concept, applications, and some of projects for promoting disaster resilient and sustainable society with information and communication technology in this paper.

We propose Digital Earth platform as the public information base which has cloud-based geospatial information system and services in cooperation with multi stakeholder as shown in Fig. These information systems should be autonomous, distributed and coordinated, interoperable as well. They work for ESD especially for the multi-risks, both mitigation and preparedness in ordinary time and emergency to reduce the vulnerability of our society. It would be a comprehensive facility and social system dedicated to disaster and environment management for sustainable future, with the capacity to supply the necessary staff and equipment such as sensor web supporting by a wide range of associated organizations.

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