Tohoku Reconstruction Solutions NEW

We want to make use of VR-supported landscape planning to aid in post-earthquake reconstruction through relocation of communities to higher ground.

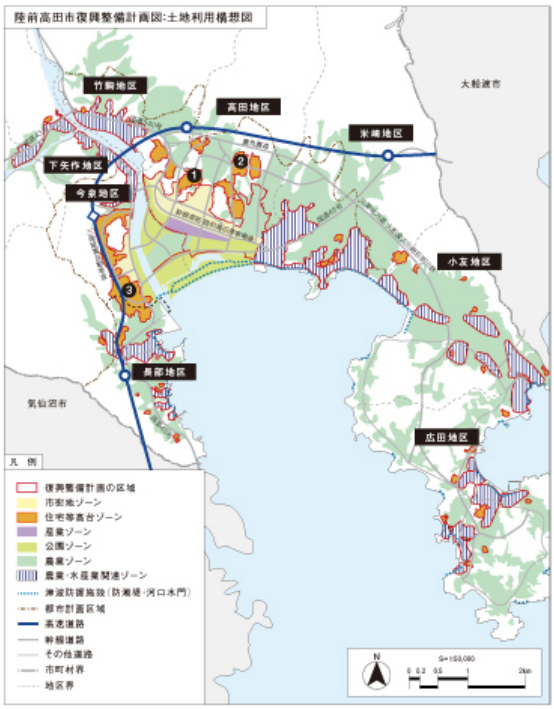
Rikuzentakata Post-earthquake Reconstruction

Challenges in Tohoku Reconstruction

Creating a beautiful new seaside city with a harmonious blend of ocean, greenery and sunshine, which people worldwide can appreciate

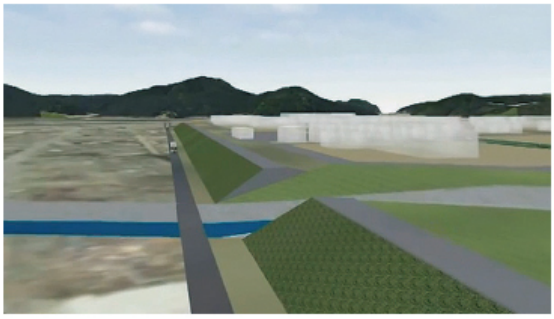
The City of Rikuzentakata was severely damaged by the giant earthquake and the unexpectedly large tsunami that followed. The tsunami washed away the beautiful coastal pine forest, and devastated the region's physical and social infrastructure. Even more tragically, the disaster left 1,800 dead or missing in the city.

To support reconstruction of communities, the three prefectures comprising the Tohoku region planned land readjustment for 51 districts. As of the end of September 2013, 46 districts (90 percent) reached the stage of launching a project, and 20 districts (39 percent) had already started site preparation. To facilitate reconstruction of communities in the disaster-affected areas, Rikuzentakata City became the first city within Iwate Prefecture to conclude an outsourcing agreement with the Urban Renaissance Agency. As for reconstruction and improvement of the city's central area, land replotting took place in the Takata and Imaizumi districts. The city's plan was to relocate residential areas to higher ground on the mountainside and form a new city center on the elevated land. This would create a compact city fully equipped with multiple disaster prevention measures. Based on this plan, the municipal government and citizens are joining together to create a new seaside city with a population of over 25,000 and a harmonious blend of ocean, greenery and sunshine.

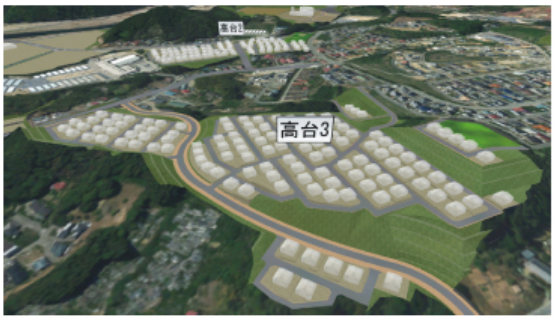


VR helps build consensus in the course of collective relocation of communities to higher ground

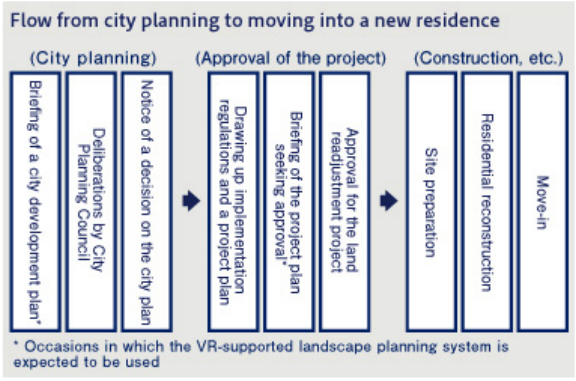
In the City of Rikuzentakata, which suffered enormous damage from the Great East Japan Earthquake, new city development initiatives are in progress. After receiving approval as a land readjustment project for post-earthquake reconstruction, site preparation work began in part of the Takata and Imaizumi districts. The development of a new city center, involving a large-scale civil engineering project to develop land at higher elevations, will cause significant changes in the community's surroundings and landscape. Citizens thus have concerns about how high the planned elevated ground will be, and in what way their lives will change in a new residence. Clearly, it is not an easy task to convince citizens of the need for relocation and to reach consensus. To facilitate presentation of post-relocation conditions and environment, a Panasonic VR (virtual reality)-supported landscape planning system was used. The system can view terrain from different perspectives, such as a bird's-eye view and a pedestrian's viewpoint. This proved especially useful for reviewing the plan during a briefing for citizens, and for creating an explanatory video on the Rikuzentakata City website.



Elevated ground in the Takata district



High ground in the Takata district



3D conceptual image video for the city's new central area shown on the Rikuzentakata City website uses VR data with narration

陸前高田市 RIKUZENTAKATA CITY IPPON MATSU

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