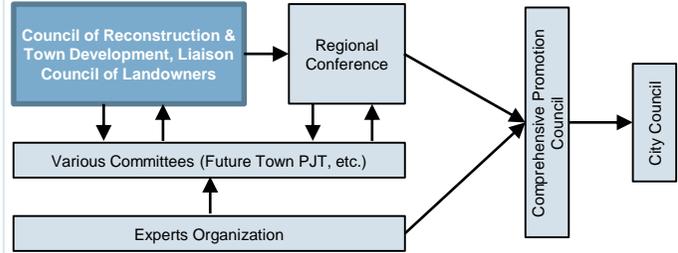


Development of Disaster Management Bases Integrated in Town Development by Cooperation of Residents

<p>Region</p>	<p>Kamaishi City, Iwate Prefecture</p>	<p>Important Aspects to Realize “Better Reconstruction”</p>	<p>Development of Disaster Management Bases Integrated in Town Development; and Process of Consensus Building among Residents</p>		
<p>Overview of Efforts</p>	<ul style="list-style-type: none"> • Kamaishi City of Iwate Prefecture, with a population of about 40,000 (before the earthquake), is one of regions seriously damaged when the Great East Japan Earthquake occurred. About 30% of the total households was damaged mainly due to the tsunami, and a large number of casualties was suffered. • Reconstruction and town development of the city is promoted in two different ways, “Urban style” and “Fishery village style”. The former mainly promotes development by readjusting land parcels, and the latter mainly promotes population resettlement. • As for the promotion system for reconstruction, Council of Reconstruction & Town Development and Liaison Council of Landowners have been established. They are promoting the reconstruction by determining projects suited to the actual situations of disaster affected 21 districts. 				
<p>Points of Efforts</p>	<p>1. Promotion of Town Reconstruction in Accordance with Regional Characteristics</p> <ul style="list-style-type: none"> • In Kamaishi the land use policy by district has been developed to create two type of districts, “District developing a new town as non-flooding area by relocating to upland and installing multiple defenses” and “District adopting building regulations for land use”, based on the regional characteristics. <p>2. Establishment of Council of Reconstruction & Town Development by Respecting Residents Playing the Key Role</p> <ul style="list-style-type: none"> • Immediately after the earthquake, opportunities to hold dialogue between the city administration and relevant parties such as residents, business operators and landowners have been established in a style of social gathering organized by the city administration, in disaster-affected districts within the city. • District reconstruction revolves around the exchange of opinions among Council of Reconstruction & Town Development of each district, Liaison Council of Landowners, and the city administration. While incorporating inputs from the residents as much as possible, a comprehensive town development policy has been determined and developed, including plans for not only housing but also elementary and junior high schools, as well as attracting the 2019 Rugby World Cup, a sports complex, etc. 	<p>Land Use Policy: 3 Key Points</p> <p>Securing Safety</p> <ul style="list-style-type: none"> ➢ Secure the overall safety by focusing on the evacuation of the residents and combining developments of land use, evacuation and disaster management facilities. <p>Reconstruction of Dwelling</p> <ul style="list-style-type: none"> ➢ Develop post-disaster public housing for those who lost their houses due to the earthquake and have difficulty in securing housing by themselves. ➢ Secure land for housing by ensuring a certain level of safety with multiple disaster defenses, so that housing will not be lost. <p>Creation of Evacuation Mechanism</p> <ul style="list-style-type: none"> ➢ Raise the awareness of disaster preparedness through disaster prevention education, evacuation drills, and passing on the lessons and stories of disaster, so that each individual can protect own life for sure. ➢ Develop a system enabling a smooth evacuation, e.g. measures for speedy dissemination of information and for people such as the elderly with difficulty in evacuation, etc. 	<p>Seawall Development Concept</p> <p>Tsunami Defense Level (level 1)</p> <p>In the case of high-frequency tsunami (occurs almost every several decades to every hundred years or more. Magnitudes of Sanriku Tsunamis in Meiji and Showa periods in Kamaishi), minimize water intrusion into inland areas with seawalls and breakwaters, as small as possible.</p> <p>Tsunami Damage Mitigation Level (Level 2)</p> <p>In the case of the biggest tsunami (greater than the high-frequency tsunami, exceeding the capacity limit of measures by seawalls and breakwaters. Magnitude of Great East Japan Earthquake in Kamaishi), make sure to protect lives of people by combining hard development and soft measures.</p>	<p>Land Use Concept</p> <p>Develop a district-specific land use policy with the idea of two district types, based on simulation results of water intrusion by the biggest tsunami against the development target height for the high-frequency tsunami. Combine hard development and soft measures in the policy.</p> <ul style="list-style-type: none"> ➢ District developing a new town as non-flooding area, by relocating to upland and installing multiple defenses ➢ District allowing the land use of area where a certain amount of water intrusion is foreseen, by adopting building regulations for land use. 	
	<p>3. Promotion of Town Development in Cooperation with Local Businesses</p> <ul style="list-style-type: none"> • In September 2012 a memorandum of understanding on development of disaster public housing with Kamaishi Plant of Nippon Steel Corporation was signed. The housing was developed through a public-private partnership, and the construction was completed in February 2015. • The Nippon Steel plant located close to the former shopping district of the city was partially rented to attract Aeon Town in March 2014. Requests by Kamaishi Chamber of Commerce and Industry and businesses in the shopping district were reflected in the determination to attract Aeon Town. 	<p>Image of Development</p> 	<p>Joint Store Facility</p> 	<p>Information Exchange Center</p> 	



Status of Reconstruction and Land Use in Unosumai and Kerobe Districts

Land Use Policy of Unosumai District and Current Status

Figure: View over Unosumai District



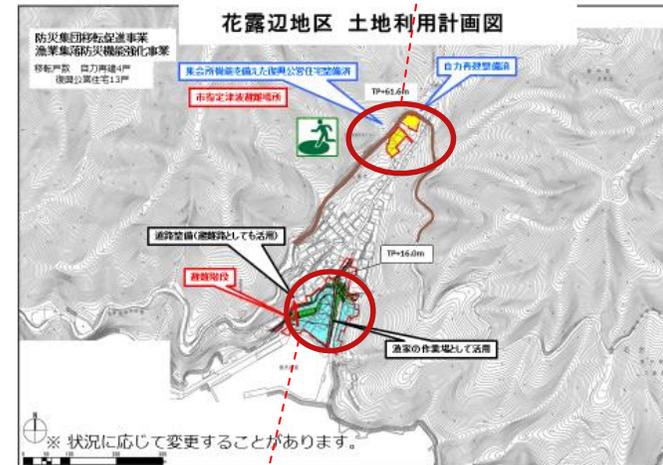
← Instead of relocating to upland, incorporate building regulations to town areas existed before and prepare for disasters such as tsunami.

Figure: Planned construction site of elementary & junior high schools



Land Use Policy of Kerobe District and Current Status

Figure: Development status of residence at relocation destination (completed)



← Relocate the residential area to upland and develop new fishery-related facilities in the coastal area.

Figure: Site after relocation

