

Mitigation Strategies

Before the 2011 Great East Japan Earthquake, many mitigation strategies (both structural and non-structural) were already implemented by the Japan Government; however, some of them failed when the disaster took place.

Several measures were taken after the 1960 tsunami such as seawalls and coastal dykes. After the 2011 disaster, it was found that the lack of protection of the dyke toes was a mistake. Tsunami hazard maps were developed, which provided information about the inundation zones, evacuation shelters, and guides on surviving a tsunami. These hazard maps were both beneficial as well as limiting because even while guiding people in knowing the risk area, they gave false assurance to people outside the expected inundation zone that they were not at risk. In the pre-2011 period, there was a misconception that RC buildings were the safest choice to survive a tsunami disaster, but in the 2011 Earthquake and Tsunami disaster, a number of those buildings were either washed away or overturned.

There were cases where mitigation strategies worked. For instance, a quick and effective response by high school students who ran to higher ground saved many lives¹

There were several lessons learned following the 2011 Great East Japan Earthquake disaster. Although Japan is known for prioritizing disaster risk management, there were several key learnings. According to a report published by the World Bank, the main lessons were: 1) the need for a holistic approach, 2) more investment in prevention, 3) the need to collaborate with relevant stakeholders, and 4) every disaster as a chance to learn. The importance of resilient infrastructure, conducting regular drills, effective stakeholder engagement, advance planning, and continuous reflections are now understood.²

References

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