

## Editorial

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### Reconstruction following the 2011 Tohoku Earthquake and Tsunami: Long-term resilience and sustainability implications

The 2011 Tohoku Earthquake and Tsunami (also referred to as the Great East Japan Earthquake) caused great devastation throughout the North-Eastern coast of Japan. Following the disaster important reconstruction efforts were made to rebuild the area and attempt to improve the safety and resilience of coastal communities against future events. In the process, the Japanese government spent vast quantities of money, profoundly altering the physical and societal landscape of the region. This reconstruction period was divided into three phases, with the last one officially ending in 2018.

This special issue has brought together the latest research and practical case studies regarding the state of reconstruction of the Tohoku region, providing a holistic view of how the reconstruction has affected the communities involved. The papers focus not only on the reconstruction that has been carried out, but on the long-term resilience and sustainability implications that these have on the communities affected [1, 2]. Essentially, when considering the reconstruction of a region, it is important to not only consider how the physical infrastructure and houses are rebuilt, but also how the social and artistic values of a community can be preserved and transmitted into future generations [3]. The preservation of the memories of such a disaster can be done in several ways, and in the modern world this can take the shape of visual disaster records from digital archives and films [4].

Although the disasters have caused a great deal of loss for the communities affected, it also presents an opportunity to re-examine the configuration of urban space and what kind of changes may be needed in order to strengthen future resilience and sustainability. It is clear that the communities affected, using resources and funding from the Japanese government, have made great efforts to improve the preparedness to future disasters. Learning from the lessons of evacuation during the 2011 event, improvements have been made to evacuation plans [5]. Such improvements will likely enhance the long-term resilience of the areas [1,2], though it is worth noting that the lessons learnt from this event have transcended Japan, and are influencing how other countries approach disaster recovery [6].

Although ten years have passed since the 2011 Tohoku Earthquake and Tsunami, the recovery and reconstruction process are still ongoing in many communities. In some instances, recovery many continue years from now and in other instances, certain aspects of society may never recover. Thus, the need to continue research into the long-term recovery of the region is vital. The editors thus hope that the scientific research provided in the present special issue will help many other locations around the globe to better protect against natural hazards, improve Build Back Better processes, and achieve a future in which no human is harmed as a consequence of such events.

### References

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