

# Relocation Once More: 2011 Great East Japan Earthquake and Tsunami

## Introduction

The 2011 Great East Japan Earthquake, accompanied by a devastating tsunami is one of the most catastrophic disasters in the history of Japan. To create more resilient cities, the national and local governments promoted “collective relocation” of houses from the lower inundated lands to uplands. However, the relocation was not new at all for the coastal communities. In fact, they relocated their houses at least twice; one of the relocations was even more than 120 years ago.



(Source: Japan Geospatial Information Authority)

## Research question

**Why do people relocate their houses again and again?** What makes the coastal cities vulnerable to disasters, especially to tsunamis?

## Research site

Yamada City, Japan

## Target population

Residents in Yamada

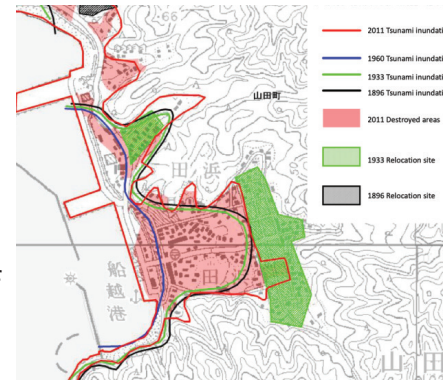
## Why did the past relocations fail?

### 1896 Tsunami & relocation

It was the community that led the relocations rather than the governments. Many of the relocation sites were not damaged by the subsequent tsunamis.

### 1933 Tsunami & relocation

The national government recommended relocation and funded some part of the civil works. However, there was no municipal regulations that prohibited the building of houses in the tsunami-affected areas.



(Source: Cabinet Office, Japan)

## Lessons learned

The devastating disasters urged people to relocate their houses. However, as time goes by, people returned to the areas that had been affected by the past tsunamis. These newly developed residential areas were severely damaged by 2011 Tsunami, whereas many relocated sites survived from the same disaster.

## Will the latest relocation succeed?

### 2011 Tsunami & relocation

The relocation was coupled with designation of a new Disaster Risk Zone, which prohibits residential use in lowland. The national government mandated to designate such zone as a requirement for its reconstruction subsidy. This land use change brought about drastic changes in the urban form.



(Source: Google Earth)

## Conclusion

The 2011 relocation is effective in maintaining the planned urban forms by designating all tsunami-affected areas as the Disaster Risk Zone.

However, there were some negative consequences. The lengthy process and undesirable conditions of the relocation resulted in the outmigration of the community members who used to live in lowlands.