Variety of Housing Relocation after 3/11
its characteristics and challenges

Voluntary / Individual Relocation

Government-driven / Group Relocation

Tamiyo Kondo, Ph.D
Associate Professor, Kobe University

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Great East Japan Earthquake (2011)

Source: New York Times
“Group Relocation” to mountainside by government-funded projects

source: KAJIMA (2015.03)
“Individual Self-help” Relocation
including government-funded buyout and non-buyout
Where are survivors relocating to and how did they make decision?

Figure: Building Constructed after 3/11
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City of Higashimatsushima, Miyagi Pref.
Infill development × Compact
City of Higashimatsushima

- Development of new building construction of ‘infill development’ in existing residential areas.
- Existing residential areas have absorbed new detached housing in blank areas which are vacant lots.

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Infill development × Compact
City of Rikuzentakata, Iwate Pref.
• New buildings are ‘scattered’ citywide dotted along the existing roads and the borderline flooded area.
• The boundary line of the living area is expanding.
• Land use change/development from agricultural to residential.

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new detached housing that was developed by clearing trees and developing residential land.

New development × Sprawl
Housing Recovery by development type and footprint after 3.11

- Infill development
- Compact footprint
  - Infill \times Compact
  - New \times Compact
- Sprawl footprint
  - Infill \times Sprawl
  - New \times Sprawl

New development with infrastructure construction

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How’s individual relocation rebuilding better?

From People-centered eye

- People finished reconstructing housing **faster** than group relocation. They think speed is really important.
  - However, will it be good decision in the long-run?

- People feel **unhappy** about their **community**.
  - Cannot Sustaining previous community and creating new community.

- People can afford to reconstruct their housing and buy new land. However, there is a **problem with family finance** in post-retirement years.
  - People **did not have another alternative**, such as private rental housing.
How’s individual relocation rebuilding better?  
*From Spatial-centered eye*

• **New Development × Sprawl type = Non-compacted City is unsustainable** in terms of **city management** because of too much infrastructure construction in depopulated city.
  – New Construction and long-term management of infrastructure such as roads, sewage/water, retaining wall for landslide etc.

• It is also **socially unsustainable** for people to sustain their life: **mobility** degradation and inactivate **community**
  – Elderly have to walk to supermarket half an hour each way, sloping road.
What are the key lessons learned?

• It is important to utilize urban planning 'guidance' for housing recovery with the perspective of spatial planning by utilizing survivors' resilience is suggested as an effective model for sustainable disaster recovery.
  – Not too much reliance for government-driven group relocation. Need alternatives for diverse redundancy.

• Community-driven group relocation would be better alternative for sustainable and resilient housing recovery not only for people-centered but also spatial-centered approach.
My next research target=
Community-Driven Group Relocation

“Decision making by community“ enable following outcomes.

– Sustain Community
– Nearby Relocation
– Infill Development
– Faster than government?
Reference

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- Chang, K., Shao, P. and Kondo, T., Relocation of Communities after Natural Disasters in Taiwan and Japan, “Demography of Disaster” edited by Taylor, A. and Karácsony, D. (Eds.) Publisher TBA. (forthcoming)
Community-Driven Housing Recovery after Hurricane Katrina (2005)

- Renovation of occupied and vacant property to provide affordable housing ➞ priority for people
- Construction of infill development,
- Greening of vacant lots

Keywords: neighborhood-based +community-driven ➞ holistic recovery, spatial and property development & planning including property transfer and clustering

Source: New Orleans Redevelopment Authority, Neighborhood Stabilization Program Phase two report, July 2013