

# Considering the Meaning of Build Back Better from the experience of Catastrophe

International Recovery Forum

Enhancing Urban Resilience

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# Build Back Better(BBB)

in Sendai Framework for Disaster Risk Reduction  
2015-2030

- **Priority 4:** Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

Based on Priorities 1-3, BBB is a key concept for the restoration.

- Priority 1: Understanding disaster risk
- Priority 2: Strengthening disaster risk governance to manage disaster risk
- Priority 3: Investing in disaster risk reduction for resilience

# BBB in the context of Japan, its disaster history

- . . . . .
- 1896, Meiji Sanriku Earthquake, 21 thousand people dead.
- 1933, Shouwa Sanriku Earthquake, 3 thousand people dead.
- 1960, Chile Tsunami, 142 people dead.
- 2011, Great East Japan Earthquake, 18 thousand people dead.



Huge earthquake and tsunami disasters occurred many times repeatedly in the same area.

The restoration must include the preparation against the next tsunami.

# Tsunami hit Japan - Miyako City, Iwate Prefecture -

**Tsunami easily surmounted the Great Seawall.**

Photo originally provided by Taro-cho Fishery Cooperative;  
Courtesy of Cabinet Office, Government of Japan



# Taro, Iwate Prefecture

## Seawalls were destroyed or come over.



Toni Hongo, Kamaishi, Iwate  
Higher places were safe, but lower palaces were  
devastated.



Toni Hongo

The construction of seawalls enabled the housing development at lower area.



Yoshihama, Ohfunato, Iwate  
Hill settlements escaped from the damage.

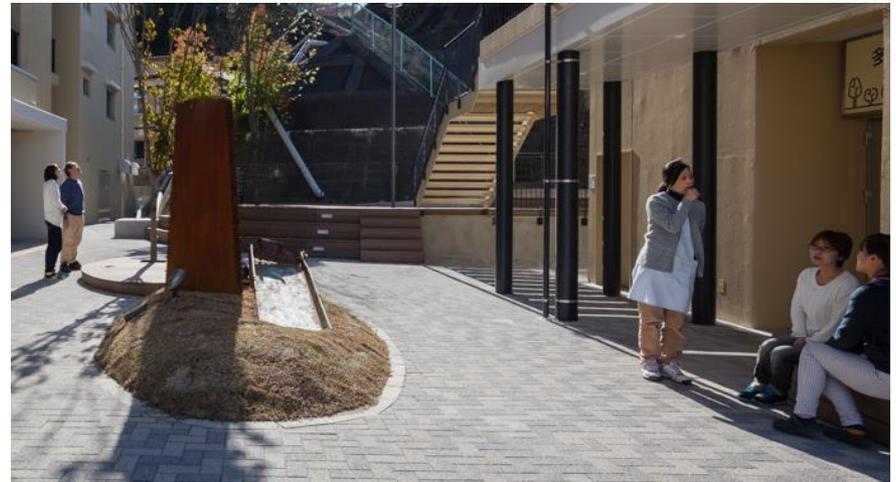




# Three measures are indispensable.

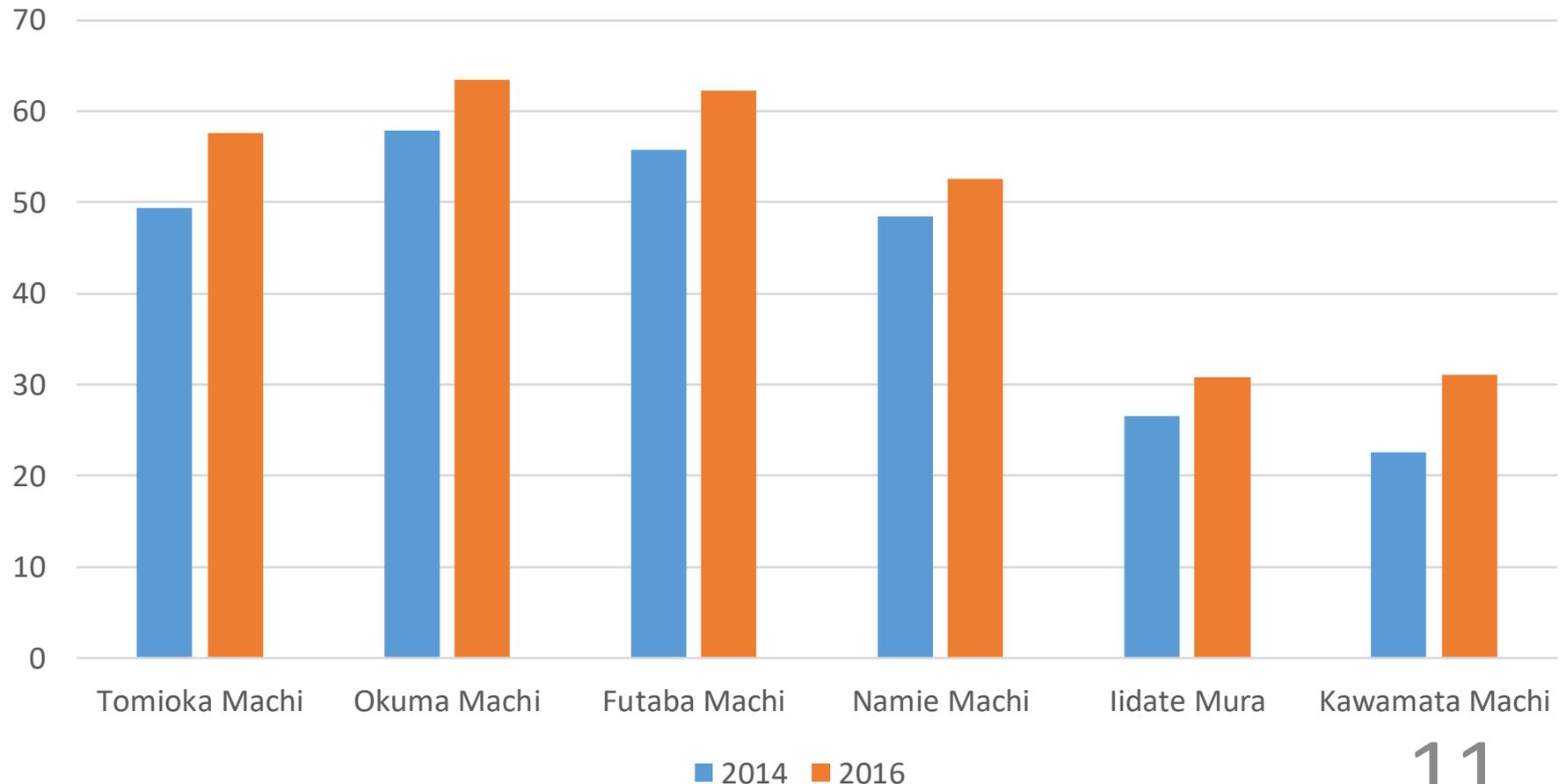
- Disaster prevention: seawalls, water-breaks can prevent small or medium scale of tsunami from damaging communities.
- Safe location of communities: The area where we have houses or other facilities for our use should be hopefully located safely with enough height.
- Evacuation routes and places: People can evacuate to safe places when huge tsunami occurs.
- Through these processes, science and technology should be fully applied.

# A restoration housing with evacuation facilities in kesennuma City



# Residents evacuated from the areas close to Fukushima 1<sup>st</sup> NPP

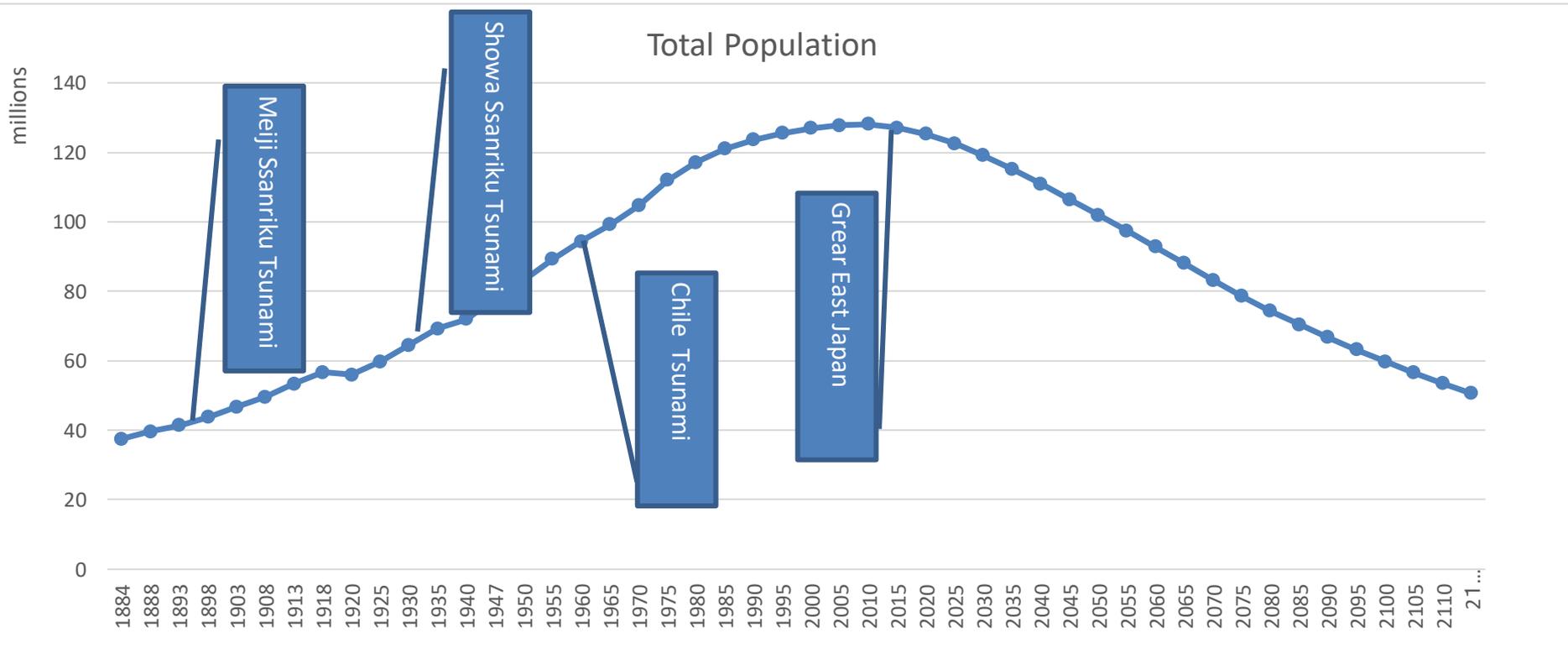
Percentage of those who responded that they would not return in residents' intention survey



# Dual Status as Residents of the Affected Areas in Fukushima

- The people evacuated can be registered in their hometown and in the place where they actually live.
- The affected people can receive some civic services from the both local municipalities.
- This dual status takes place substantially at present as a part of emergency treatments, but the proposal mentioned this should be established institutionally to be applied for a long time.

# Great Disasters in The East Japan and the Population Changes



# Restoration in Population Declining Society

- When it takes a long time to complete the restoration projects like in the case of the Great East Japan Earthquake, the economy and society will have changed significantly.
- Therefore, BBB should mean to catch up with the new economic and social situation appearing in process of the restoration.
- Integration of communities' activities to prepare the reduction of population
- Selection and concentration strategy for industrial development.

# Responsibility for BBB.

- Natural disaster: The principle of self-responsibility, if necessary, mutual assistance and public aid are desirable.
- Man-made disaster: The accident of nuclear power plants requires the responsibility must be take by the policy promoter and business enterprises.
- Those responsible must work for the BBB too.

# Conclusion

1. BBB means restoring damaged communities so as not to be affected by similar disasters, utilizing science and technology.
2. BBB means restoring the lives of disaster victims to realize their hope as much as possible.
3. BBB means restoring the industry and social activities in the affected communities so as to avoid the influence of the disaster to the rest of the world.
4. BBB must consider that the restoring must be sustainable to the future society when it takes a long time.
5. Finally, the responsibility must be well considered when BBB strategy is implemented.