

Japan—March 11 2011 Tripple Disaster and Recovery

A magnitude 9.0 earthquake off Miyagi spawns massive tsunami in the Pacific Coast triggering nuclear accident in the Dai Ichi Nuclear reactor in Fukshima

March 11, 2011



Disaster Statistics

- Affected prefectures—
- Total deaths
- Fukushima— 1,606 dead. 211 missing, 182 wounded
- Miyagi-- 9,526 dead. 1,426 missing, 4,136 wounded
- Iwate--- 4,671 dead. 1,206 missing, 201 wounded

Earthquake and Tsunami damage

- Fukushima prefecture— radiation contamination affecting 23 kilometers from Fukushima`s crippled nuclear plant. Displacement of people. More than 150,000 people continue to be displaced from their homes and offices
- Loss to fisheries industry including damage to fishing vessels, ports, fish farming facilities— estimated at Yen 1.26 trillion
- Loss to agriculture--

Lessons learned

- The damage has raised high level of conscious among the public to review current science and technology innovation
- The nuclear disaster has raised the national question—could it have been prevented
- Was Japan prepared enough for tsunami damage

Lessons Learned--energy

- Nuclear debate- demolished the myth that Japanese nuclear power plants are safe
- Raised a fierce national debate on Japan`s dependance on nuclear power— 30 percent of total energy sources.
- Rising calls to boost natural energy sources including hydro from current 9 percent to be main energy source

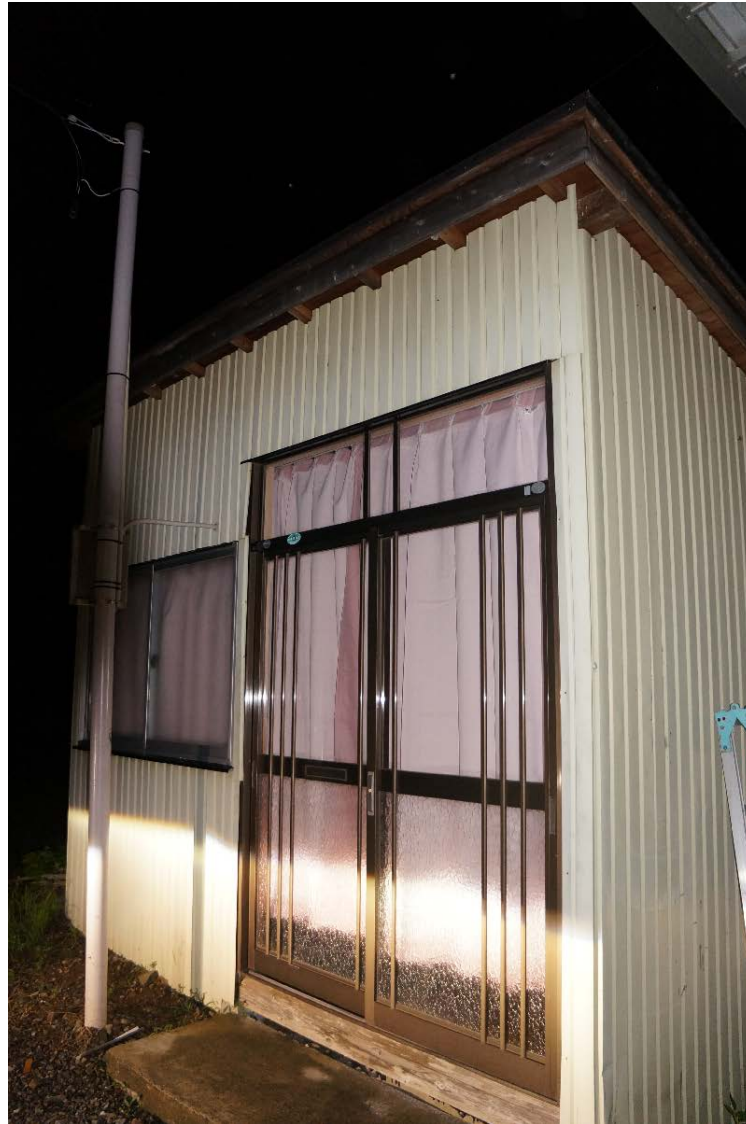
Lessons learned—disaster prevention

- A review of current disaster prevention policies – change from prevention to resilience
- Technology alone is not sufficient to protect people from natural disasters
- To build a resilient and robust society by accepting the limitations of existing countermeasures and technologies

Lessons learned on individual level

- The need to include women in disaster mitigation policy making
- The important of building community resilience through stronger networking
- The role of schools in disaster protection— as evacuation centres,

Prefab homes



Recovery so far

- Recovery budget estimated at 16.9 trillion yen or US 211 billion dollars
- Cleaning debris—25 million tonnes of debris was generated from the three worst-hit prefectures— less than 10 percent have been disposed mostly because of resistance by other public in other prefectures
- Rebuilding lost infrastructure and communities--

Recovery— Sendai City.

The industrial and economic centre of Tohoku

- Population 1.06 million
- Tokyo-Sendai travel— one and half hour
- Sendai a modern bustling city was hit by the quake and tsunami damaged local airport.
- Death toll 891. missing 30. Buildings collapsed
- Recovery is focusing on turning Sendai into a disaster resistant environmental city of new level through joint participation of local city government and citizens—2011-2015

Recovery plan

- Long term issues to be addressed—psychological care for the victims, disaster prevention education
- Rebuilding people`s livelihoods—new business focuses on nursing care for elderly started by local women.
- Addressing energy issues—achieving sustainable energy supply. Wind farms, Solar Pannels
- Reconstruction with self-help, independence cooperation and mutual support
- Creating economy/urban vitality to drive the reconstruction of Tohoku
- New Sanriku Fukko National Park—harmonious coexistence with fishery, long trails and afforestation as a symbol of green

