

Evacuation and Return Policy after Fukushima: From the viewpoints of international law on displacement

Reiko Hasegawa, Research Fellow

Politics of the Earth Programme (*Médialab*)

Sciences Po



Nuclear Displacement: Two Patterns

Total Number of Fukushima Evacuees: 1 60 000 (May 2012)

1. From Evacuation Zones defined by the government

Mandatory Evacuation (110 000)

Recognized as legitimate evacuees/victims by the government

➡ Financial compensation and assistance

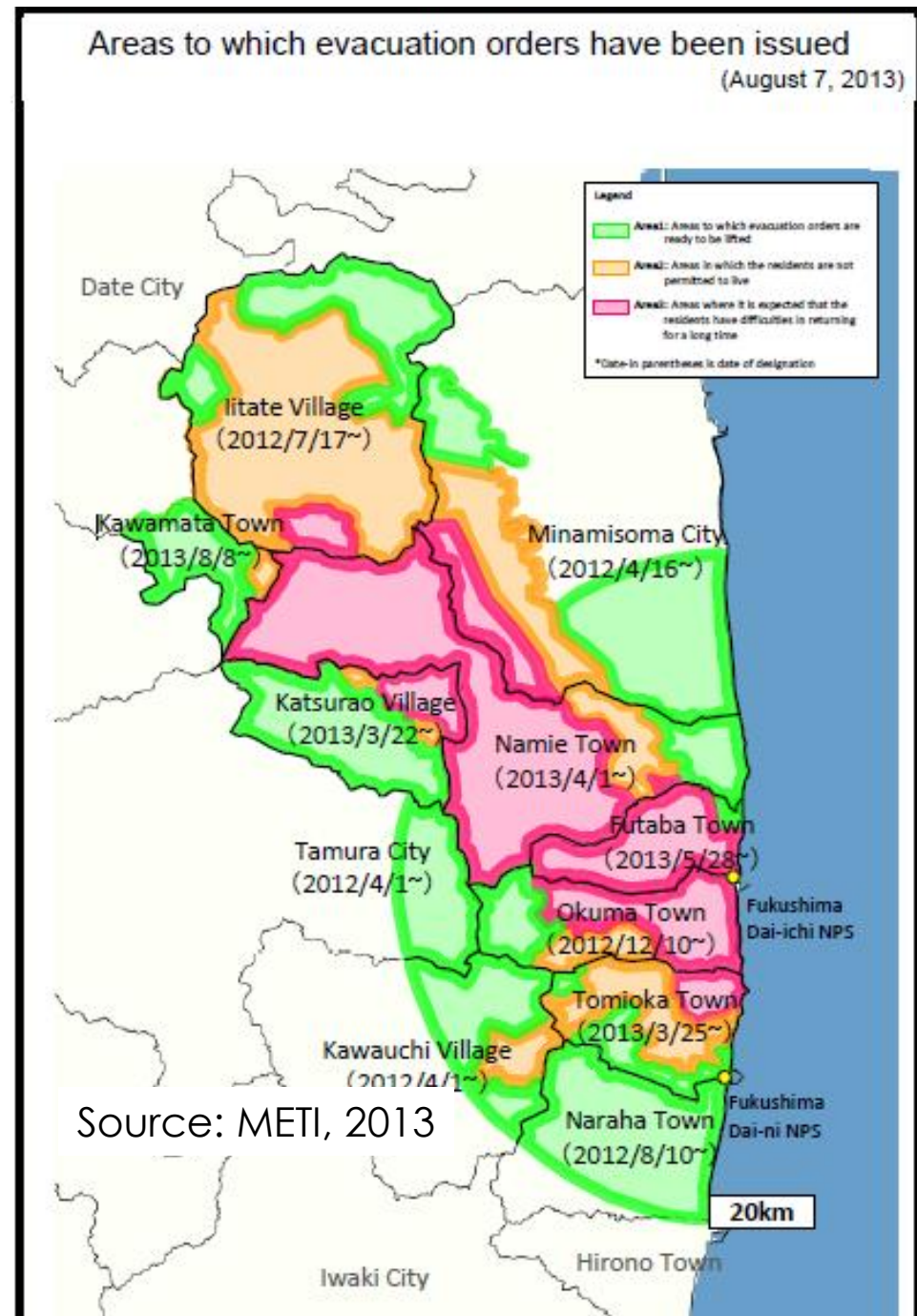
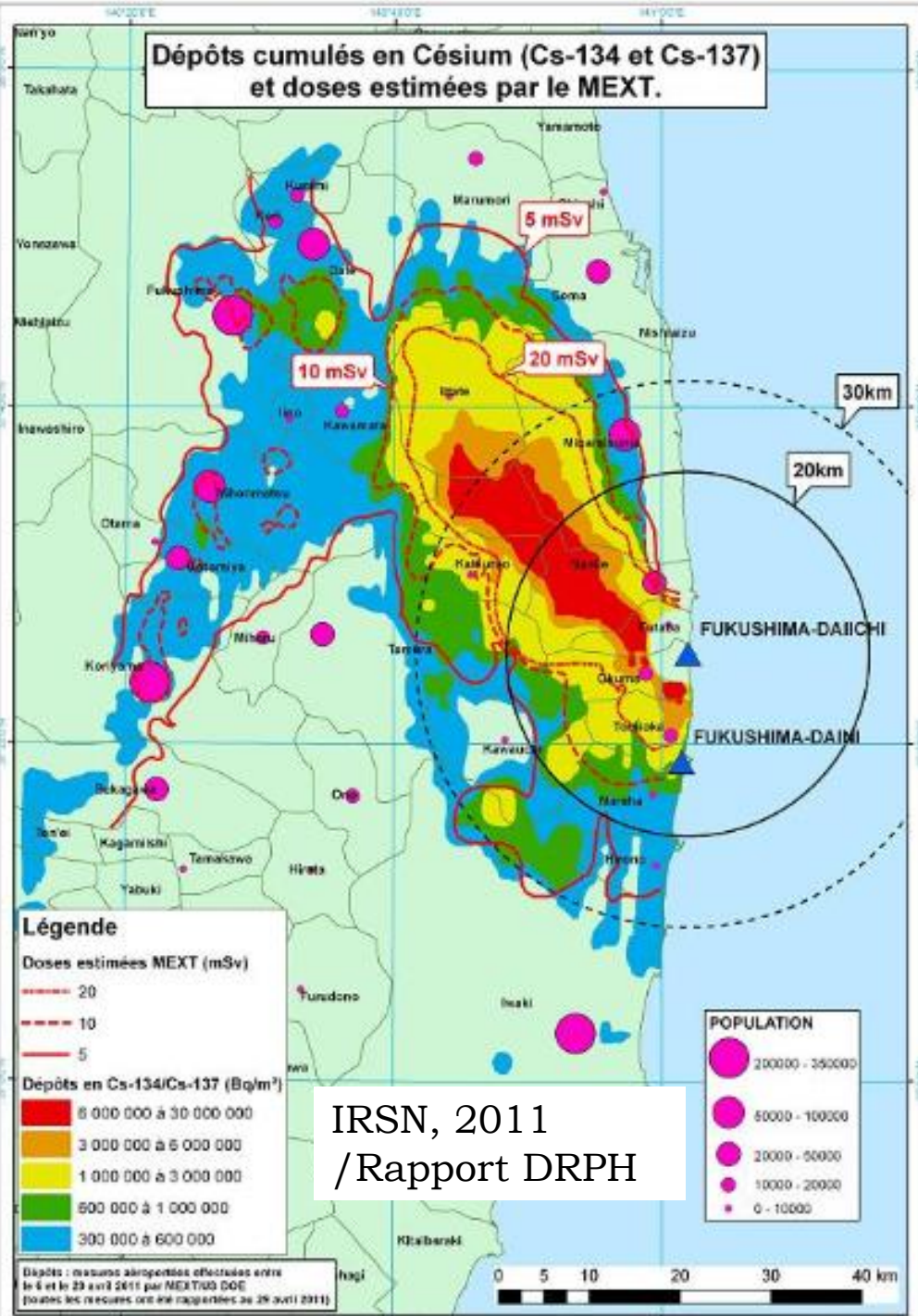
2. Outside of Evacuation Zones

Voluntary Evacuation (“Self-Evacuees”) (50 000)

Not recognized as legitimate evacuees/victims

➡ No (little) compensation and assistance





Fukushima Post-Accident Policy:

encourage return and to live with radiation risk

- The authorities changed the public exposure dose limit of 1mSv/year to the referent dose of 20mSv/year in April 2011
- Return encouraged by “carrot and stick” tactics: financial incentives + cessation of shelter assistance
- Question of return highly politicized, provoking the sense of loyalty to the community and the glorified notion of “resilience”

Outside Evacuation Zones

- Many mothers with children evacuate, leaving husbands to stay working (family separation) eg. 50% split in two or more locations
- 20-30% of Fukushima City residents still wish to evacuate (Fukushima city, 2012; 2013)



Divided families and communities



“20mSv/year” Controversy and Contestation (1)

Post-accident communication of the Japanese authorities:

- Insist on the 100mSv threshold doctrine, i.e. risk so little as ignorable

“In case of exposure dose with 100 mSv or lower, the effects by radiation exposure to get cancer is not significant than the effects by other cancer-causing factors. In this regard, it is internationally recognized (established) that it is difficult to epidemiologically prove that low levels of radiation exposure leads to an increase of health risk.” (NRA, 2013: p.3)

- Sensitivity of children to radiation exposure, not scientifically proven

- LNT model, not scientifically proven

“it is employed as a determination to compensate for scientific uncertainty standing firmly on the side of public health safety.” (Cabinet Secretary, 2011)

“20mSv/year” Controversy and Contestation (2)

- Prof Kosako, Tokyo Univ Prof, then governmental advisor (former ICRP C4 member), resigned in protest in April 2011.
- The post-Chernobyl legislation enacted in 1991 set the reference dose at 5mSv/year for resettlement (Soviet Union, Ukraine SSR, Belarus SSR)
- JFBA (Japanese Federation of Bar Associations), Japanese lawyer's federation, recommends 5mSv/year from the perspective of Japanese legislations:
 - Nuclear Controlled Area: > 5.2mSv/year (>1.3mSv in 3-month period)
 - Nuclear workers' accident recognition standard: 5mSv (since 1976, a worker diagnosed with leukemia after being exposed to 5mSv at NPP)
- The case of a Fukushima Daiichi clean-up worker diagnosed with leukemia after being exposed to 19.5mSv was recognized by the court as illness related to his clean-up work in October 2015.

“20mSv/year” Controversy and Contestation (3)

Risk perception of 116 radiation experts in Japan before the accident (Miura et al. 2013; researchers from Nagasaki Univ and Tokyo Healthcare Univ):

for oneself: 35.6mSv (average); 40.4mSv (male), 11.7mSv (female)

for children: 8.5mSv (average); 3mSv (female), 1mSv (50%)

for spouses: 15.8mSv (average)

For the majority of Japanese RP professionals, 20mSv/year was also too high for children and spouses.

As a result...(1)

Very limited return of the population despite decontamination.

- Only 22% have future intentions to return (IRSN, 2016)
Eg. Naraha, 8% returned after a year.
- Returnees are mainly elderly (more than 60 yrs old), whereby creating towns with very few children and young generations
- Young generations are commuting to their original towns due to many job opportunities created by state funding in former evacuation zones

As a result...(2)

Massive group lawsuits by affected populations

- 25 group-action lawsuits for compensation all over Japan, more than 10,000 plaintiffs

E.g. “The lawsuit against the 20mSv/y reference” in Minamisoma city (April 2015)

“The lawsuit against irradiation of children” in Fukushima (Aug 2014)

- Criminal trial against TEPCO (July 2015): ex-CEO and two former vice-presidents of TEPCO
- 33 lawsuits against the operation or restart of nuclear (or research) reactors since March 2011

Compensation

- Over 2 million compensation cases have been treated so far and 60 billion euros to be paid by TEPCO (TEPCO, 2016)
- According to FEPC (Federation of Electric Power Companies of Japan) in Oct 2016:

Compensation cost: 80 billion euros

Decontamination cost: 70 billion euros

ISF: 11 billion euros (gov estimates)

- Enormous gap in amount along the different evacuation zones
 Jealousy and division of communities

E.g. Psychological indemnification:

A case of family of four (two adults and two children)

From Red Zone, 432,000 euros in total

From within 20km Green/Yellow Zones, 252,000 euros in total

From between 20-30km, 54,000 euros in total

Outside EZ, 7,200 euros in total (e.g. Date city, Fukushima city...etc.)

Fukushima evacuees under international law and normative frameworks

Fukushima evacuees are Internally Displaced Persons (IDPs) from disaster

- **Guiding Principles on Internal Displacement** (UN, 1998):
intl. normative point of reference for internal displacement

IDPs are defined as “persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, of human rights or natural **or human-made disasters**, and who have not crossed an internationally recognized State border.”

- **Framework on Durable Solutions for IDPs** (UN, 2009)



International framework on Displacement from Disasters

- The displaced population have a right to choose between voluntary return, local integration at the place of refuge, and resettlement in other areas of the country: “Durable Solutions”
- The primary responsibility to provide durable solutions for IDPs and ensure their protection and assistance needs to be assumed by the national authorities (Principle 3)
- Under no circumstances should IDPs be encouraged or compelled to return or relocate to areas where their life, safety, liberty or health would be at risk (Principle 15)
- The rights, needs and legitimate interests of IDPs should be the primary considerations guiding all policies and decisions relating to internal displacement and durable solutions (Framework on DSs for IDPs, UN 2009).



Gap with ICRP recommendations

Notably in Publication 111 (2009) on the protection of people living in long-term contaminated areas after a nuclear accident or a radiation emergency:

“(Living in the contaminated area after an emergency exposure situation requires constant monitoring and vigilance by the inhabitants in their day-to-day life and thus) constitutes a burden for the individuals living in the contaminated areas and for society as a whole. However, both may find a benefit of continuing to live in the affected areas. Countries generally cannot afford to lose a part of their territory, and most inhabitants generally prefer to stay in their homes rather than to be relocated (voluntarily or not) to non-contaminated areas” (p.30)

Contradictory to:

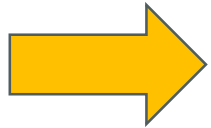
- ◆ International normative framework “the right to seek safety in another part of the country” guaranteed by Principle 15
- ◆ The reality of Fukushima: only 22% wish to return



Concluding remarks

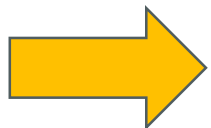
Important lessons learned from Fukushima:

- RD of 20mSv/year and the policy of encouraged return

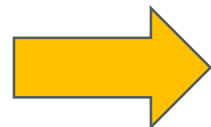


a source of controversy and contestation

- After a nuclear disaster, the population are entitled to have:



a right to seek safety in another part of the country (Principle 15) and to be assisted in this choice



a right to choose from three durable solutions: return, local integration or resettlement and each choice to be assisted **on equity** by the authorities (e.g. no favoring of one option by financial incentives)

