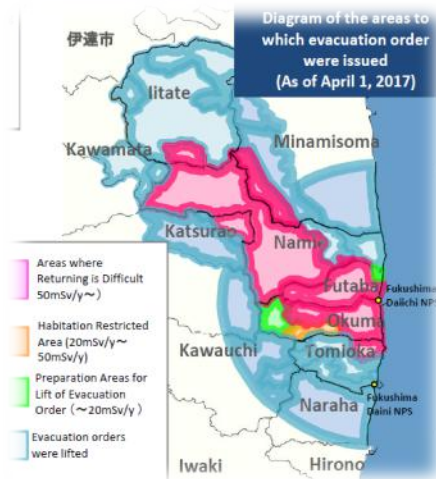


Conditions for return of people since the lifting of evacuation orders in the territories affected by the Fukushima accident

Pascal Crouail, Thierry Schneider

NERIS workshop Dublin

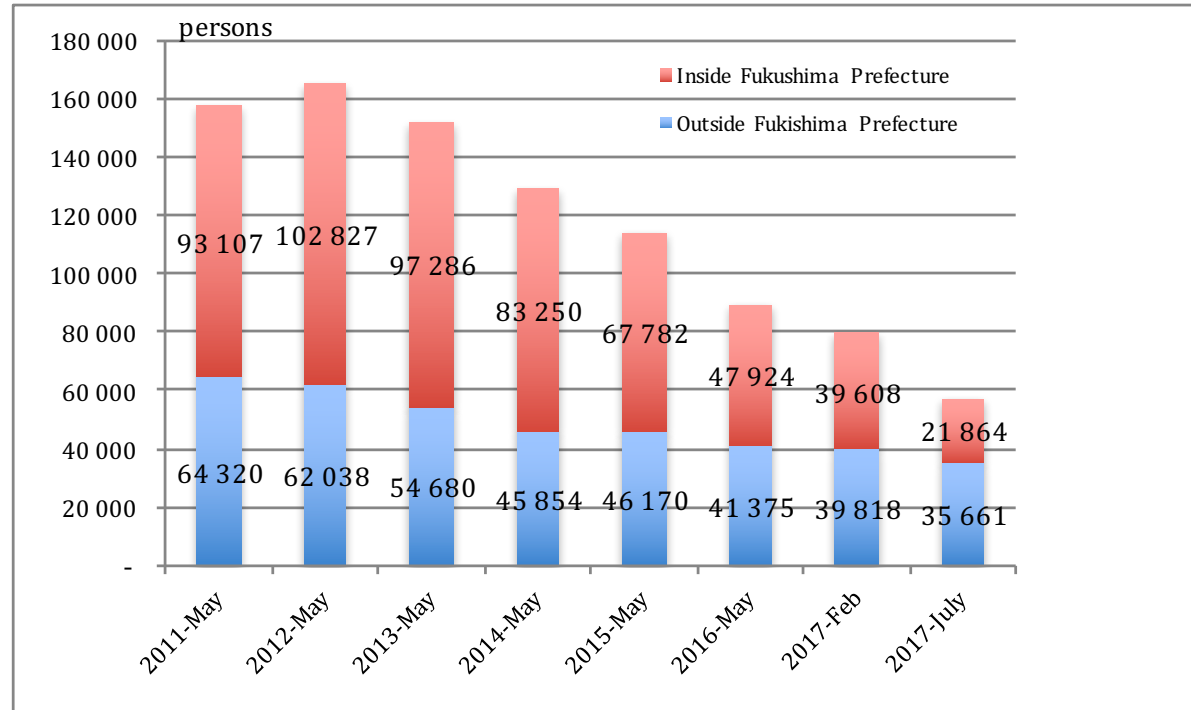
April 27, 2018



Context and objective of the analysis

- 3 year- (2015-2017) follow-up of the issues regarding the return of evacuated people
- ~ 120 stakeholders met (~1h interview/person), at all levels of decision: national (Ministry, authorities, expert institutes, etc.), regional (Prefecture, universities) and local (Chamber of commerce, elected people and public officials of the affected municipalities, local professionals, evacuees and returnees)
- Identify issues raised and lessons to be learned that could impact the EP&R plans, principles and doctrine elaborated in France (between 2005 and 2011-12)
- Sustain exchanges with Japanese national/local organisations and stakeholders involved in the recovery and rehabilitation processes
- Focus on specific municipalities where the evacuation orders have been (or will be soon) lifted

Evolution of the number of evacuees



Source: Fukushima Prefecture

Lessons learned from the analysis (1)

List of topics

- Difficulties encountered with **modelling** (incomplete identification of affected areas, too conservative forecast of exposures, mistrust)
- Conditions of the **evacuation** and their social and health consequences (self vs forced evacuees, traumas, stigmas, casualties)
- Living conditions in 'temporary' houses and long term impacts of a **long-lasting displacement** on health, family life and structure and on local communities (disrupted)

Living conditions in temporary houses



- **Zoning** criteria, evolution with time and side-effects
- Actual vs calculated **exposure** levels; dose **monitoring** capabilities provided
- **Countermeasures** implemented (e.g. decontamination of rural and urban areas; control system of radioactivity in foodstuff, etc.); selection, use and pertinence of associated radiological - or of other nature – **criteria** (implementation and lifting)

Complex waste management



Collecting sansei in Kawauchi



- **Compensation** system (incl. observed adverse effects)
- Consequences on **health and well-being** (including secondary health issues unrelated to radiation exposure), and health **surveillance** system
- Complexity brought by **the** large diversity of **involved stakeholders at the local, regional and national levels**
- Measures implemented to increase the **revitalization** and **attractiveness** of the affected areas

Possible attractiveness for new citizens?



Concluding remarks (1)

Fukushima accident put for the first time the sensitive issue of the return of evacuees including radiological considerations, together with socio-economic and ethical dimensions

- ▶ Importance to better address the temporal dynamics of the post accident situations
 - Need to elaborate EP&R plans and to design exercises taking into account all phases of the accident
 - At the time of the decision taken in emergency and intermediate (transition) phases, need to consider as much as possible the longer term issues
 - Need to involve local populations and professionals in the decision-making and processes
- ▶ Importance of designing with local communities mechanisms of governance aiming to restore dignified living conditions

Concluding remarks (2)

- ▶ Further analysis needed on:
 - Follow up of decisions of evacuees after the end of the compensation process (since 1 April 2018)
 - Future steps of the decontamination (and waste management) strategy for inhabited areas, as well as forestry and mountain areas
 - Evolution of the environmental monitoring
 - Development and transmission of radiological protection culture in the long term
 - Sustainability of economic and social development of municipalities in the following years

***THANK YOU
FOR YOUR ATTENTION***