

RETURN POLICY AFTER FUKUSHIMA

UNDER SCIENTIFIC CONTROVERSIES



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Photo: TEPCO
(2011)

4S Denver 2015

Four years on after Fukushima

- 120,000 evacuees (2014)
 - 80,000 are from Evacuation Zones
 - 40,000 are from outside: « self-evacuees »
- Different compensation payments to evacuees according to zones

➔ Tensions and divides within affected communities

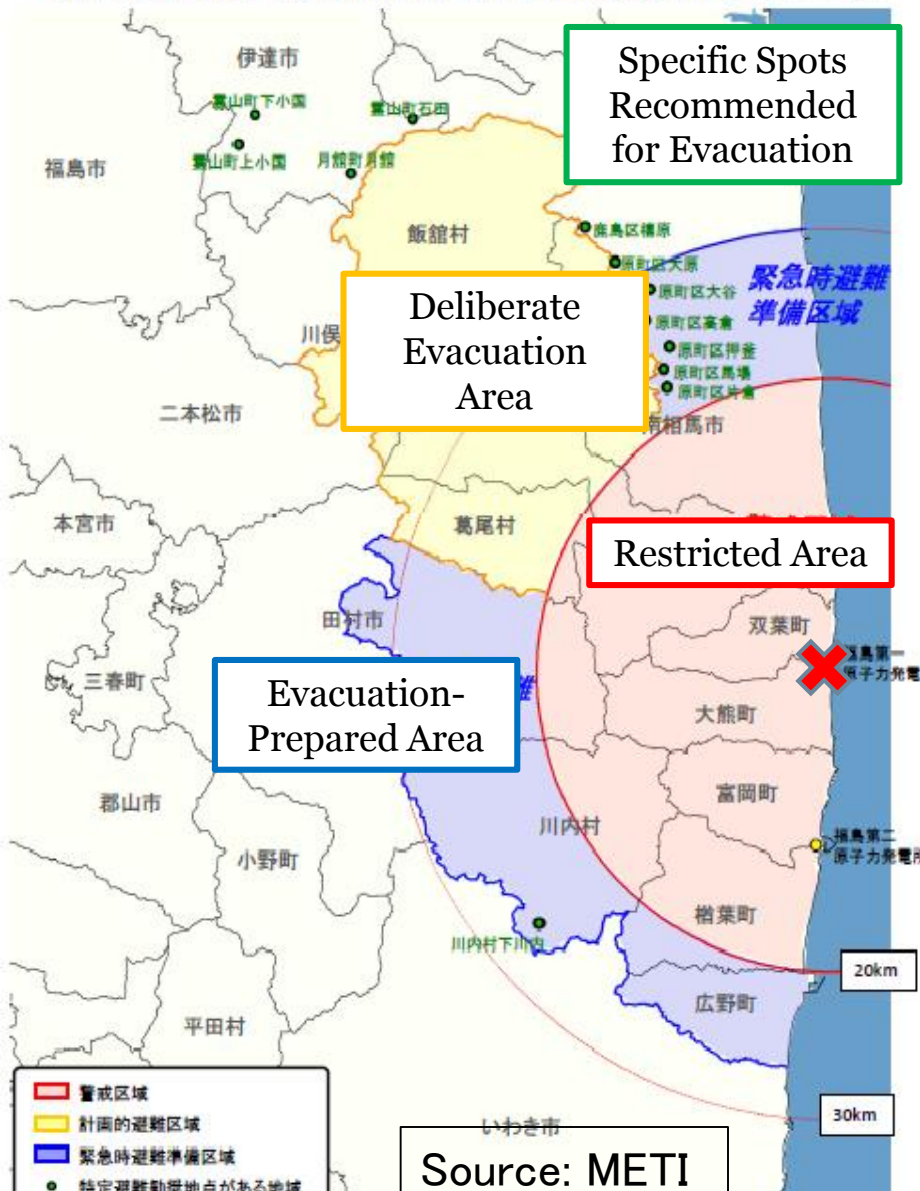
- Return encouraged by the government and municipalities to the areas they judge « safe »

➔ Ignoring the existence of scientific controversies,
No real consultations with stakeholders

Initial Evacuation Zones (2011)

緊急時避難準備区域解除前

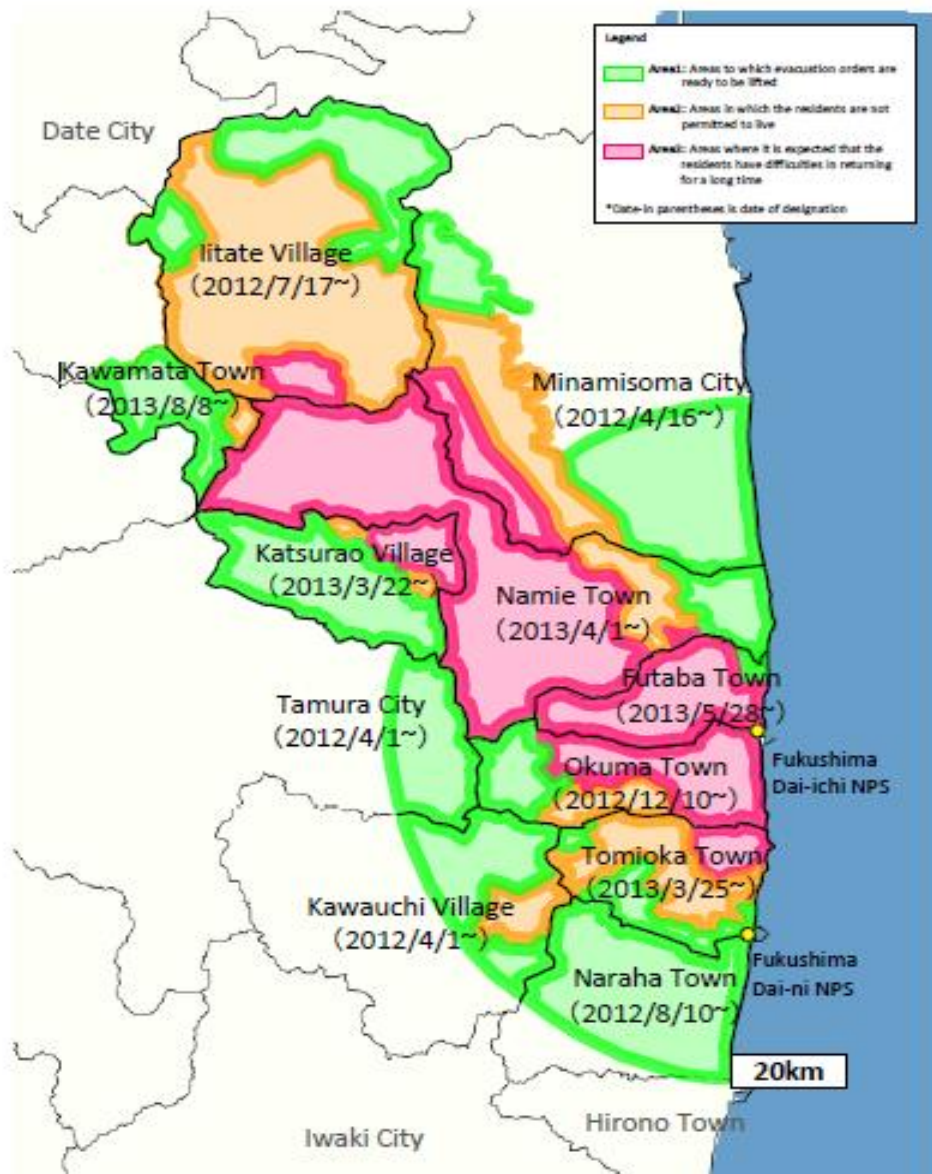
警戒区域、計画的避難区域、緊急時避難準備区域及び特定避難勧奨地点がある地域の概要図



Earthquake		
11/03	2km radius	Evacuation
	3km radius	Evacuation
12/03	10km radius	Evacuation
	20km radius	Evacuation
15/03	20-30km	Shelter indoors
22/04	20-30km	Shelter indoors or Evacuation by own means
	Areas with more than 20mSv per year	Evacuation within 1 month
16/06	Spots with more than 20mSv per year	Recommended for Evacuation

Source: METI

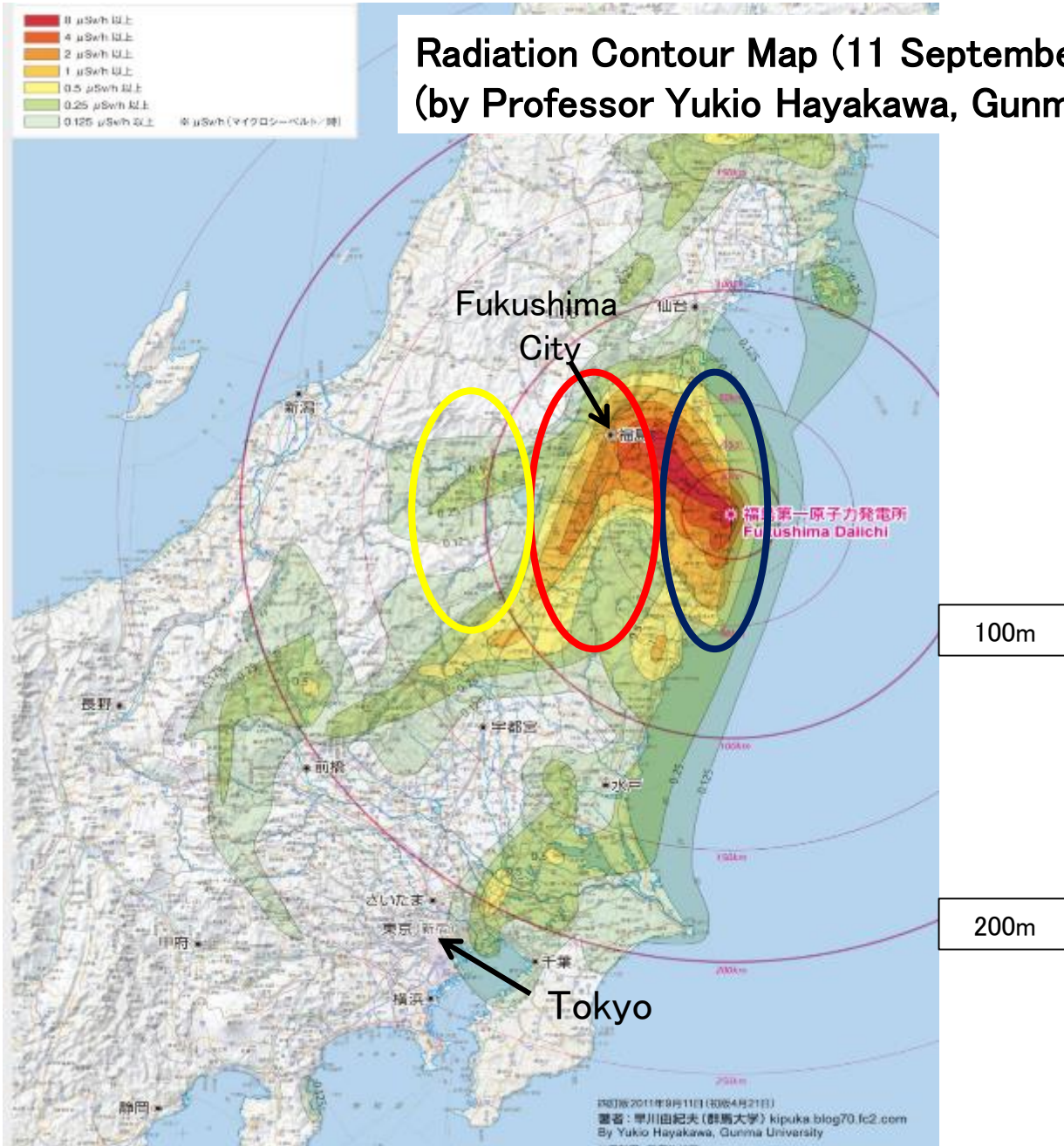
Areas to which evacuation orders have been issued
(August 7, 2013)



Revised Evacuation Zone (2012-)

	Radiation Level	Area
Green	Less than 20 mSv/y	Ready for return after decontamination
Yellow	Between 20-50 mSv/y	Residents are not permitted to live
Red	More than 50 mSv/y	Homecoming is difficult

Radiation Contour Map (11 September 2011) (by Professor Yukio Hayakawa, Gunma University)



International Guidelines for IDPs

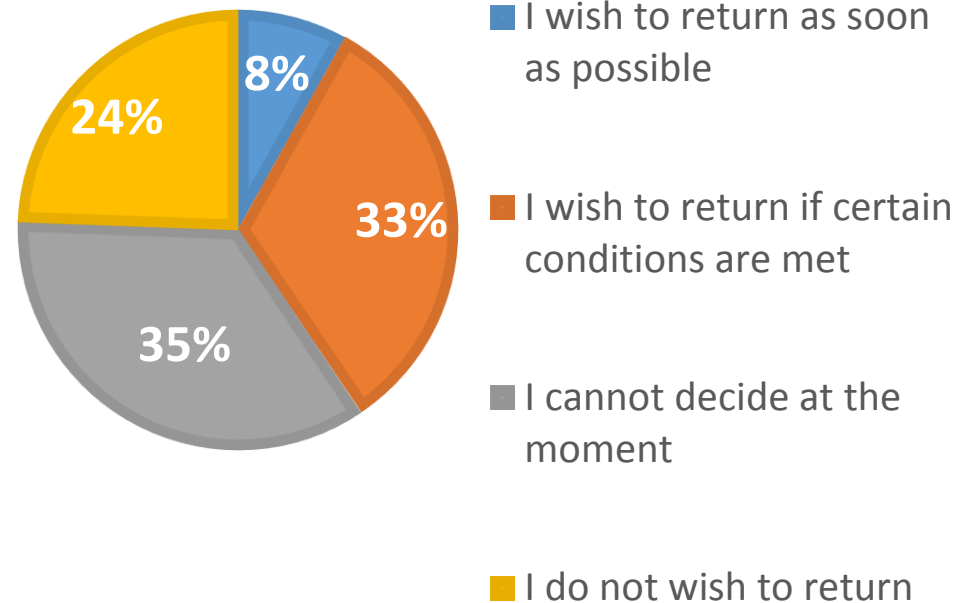
Fukushima evacuees = Internally Displaced Persons (IDPs)

- IDPs have rights to make an informed and voluntary decision on durable solutions to their displacement:
Return, Local Integration, Resettlement
- 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.

Source: The Framework on Durable Solutions for Internally Displaced Persons (UN, A/HRC/13/21/Add.4, 29 December 2009)

Case study: Naraha town

- Situated within 20km from the crippled Daiichi station
- The entire town was evacuated following the accident
- The opinion survey conducted in 2014 showed:
 - Only 8% of the population wished to return
 - 60% were undecided or do not wish to return
- Despite this, the government lifted the evacuation order in Sep 2015.



Source: Naraha town et al., 2014.

Main reasons for non-return

- Radiological risks (ambient radiation dose, contamination of water, temporal storage of waste...)
 - scientific controversies on « low-dose »
 - lost trust toward the authorities
- Long-term risk from the crippled nuclear station (continuous incidents from cleanup activities, future decommissioning activities, ISF...)
- Lack of social infrastructures (schools, clinics, supermarkets...etc.)
- Do not want to return alone
 - lost « communities »

« Temporary » housing : 4 years later ...



Temporary Storage of Decontamination Waste



Post accidental management and the loss of trust

- *“ Under the context where trust is lost toward the government and nuclear operator, risk analysis of experts would not be listened to (by the population)”*
- *“ Both the government and nuclear power plants operators had made a mistake of saying “safe” for the activity which inherently has risks. This was the fundamental cause of damaged public relations. We should not repeat the same mistake”*

Source: Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry (METI), “Regaining Trust toward the Nuclear Policy”, November 2014

http://www.enecho.meti.go.jp/committee/council/basic_policy_subcommittee

Loss of trust : elements

- « safety myth » (Sato, 2015) : no nuclear accident
- Late disclosure of information on radiological measurements (SPEEDY system) (Sugawara, 2015)
- A globally *reassuring* risks communication
 - ▣ « no risks below 100 mSv »
 - ▣ The *denial* of the existing controversy on « low doses »

20 mSv/year threshold : a contested decision that triggers public outcry (also from experts)

We demand the following:

Retraction of the “20mSv/y” standard for children. Disclosure of the names of experts, who deemed “20mSv/y” for children to be safe.

Green Action, Greenpeace Japan, Citizens' Nuclear Information Center, Citizens Against Fukushima Aging Nuclear Power Plants (Fukuro-no-Kai), Osaka Citizens Against the Mihama, Oi, and Takahama Nuclear Power Plants (Mihama-no-Kai), Friends of the Earth Japan

*The then-Special Advisor to the Cabinet, Toshiso KOSAKO, Professor of University of Tokyo, resigned from the post in protest against the threshold of 20mSv/year to be applied for children, 29 March 2011

*In such a case of uncertainty,
no threshold could be thoroughly
justified. But we are still
accountable for the one we choose.*

From the interview with an official responsible for the post accidental management in Japan (Oct 2013)

The emergence of a counter expertise



IS SAFECAST
PRO-DATA

Conclusion and research questions

- When Public expertise is not trustworthy : what is the role and specific legitimacie(s) of « counter expertise »
- Trsutworthiness of public expert in charge of giving advice after a nuclear catastrophe :
- How to make decisions when there are controversies ?
- What is the role of science ?
 - « powerless science » for risks regulation (Boudia and Jas, 2014) ?
 - If a smaller role of science, which one ? What other sources of legitimacy for dramatic decisions ?