

## **The involvement of experts in post-accident management at the service of population: Lessons from the Fukushima accident**

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- In fall 2011, **ICRP initiated a series of Dialogues** between representatives of the Fukushima Prefecture, local professionals, local communities, and experts in radiation protection from Japan and abroad.
- The aim of this dialogue is to **find ways** to respond to the challenges of the long-term **rehabilitation of living conditions** after the Fukushima accident.
- Organised in cooperation with Japan Radiation Safety Forum, IRSN, ASN, NRPA and the Committee on Radiation Protection and Public Health of NEA/OECD.
- Up to now, 10 Dialogue seminars organised.
- Analysis performed by IRSN and CEPN together with a panel of stakeholders from Japan involved in the Dialogue seminars

# ICRP Dialogue seminar – March 2013



- The human dimension of the post-accident situation
- The stakeholder engagement: authorities, the public and experts
- The co-expertise process
- The development of the practical radiological protection culture
- Perspectives

## The human dimensions (1)

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- The Chernobyl accident and the Fukushima accident show that the long-term management of their consequences is not straightforward
- The human consequences are very similar:
  - Loss of confidence in authorities and experts
  - Strong worry about health and especially of children health
  - General feeling of discrimination and exclusion
  - Feeling of helplessness and abandonment
  - Loss of control on daily life and apprehension of the future

## The human dimensions (2)

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- The technical answer to improve the radiological situation has indirect effects that isolate affected people from their day-to-day environment:
  - Decontamination, interdictions, restrictions, controls of food,...
- The main key issues to be addressed by each inhabitant:
  - To continue to live in the affected territories or to leave them
  - To return or not at home
- Need to evaluate the possibility to work and to produce in the contaminated territories
- Need to consider the new conditions in comparison to the situation prevailing before the accident

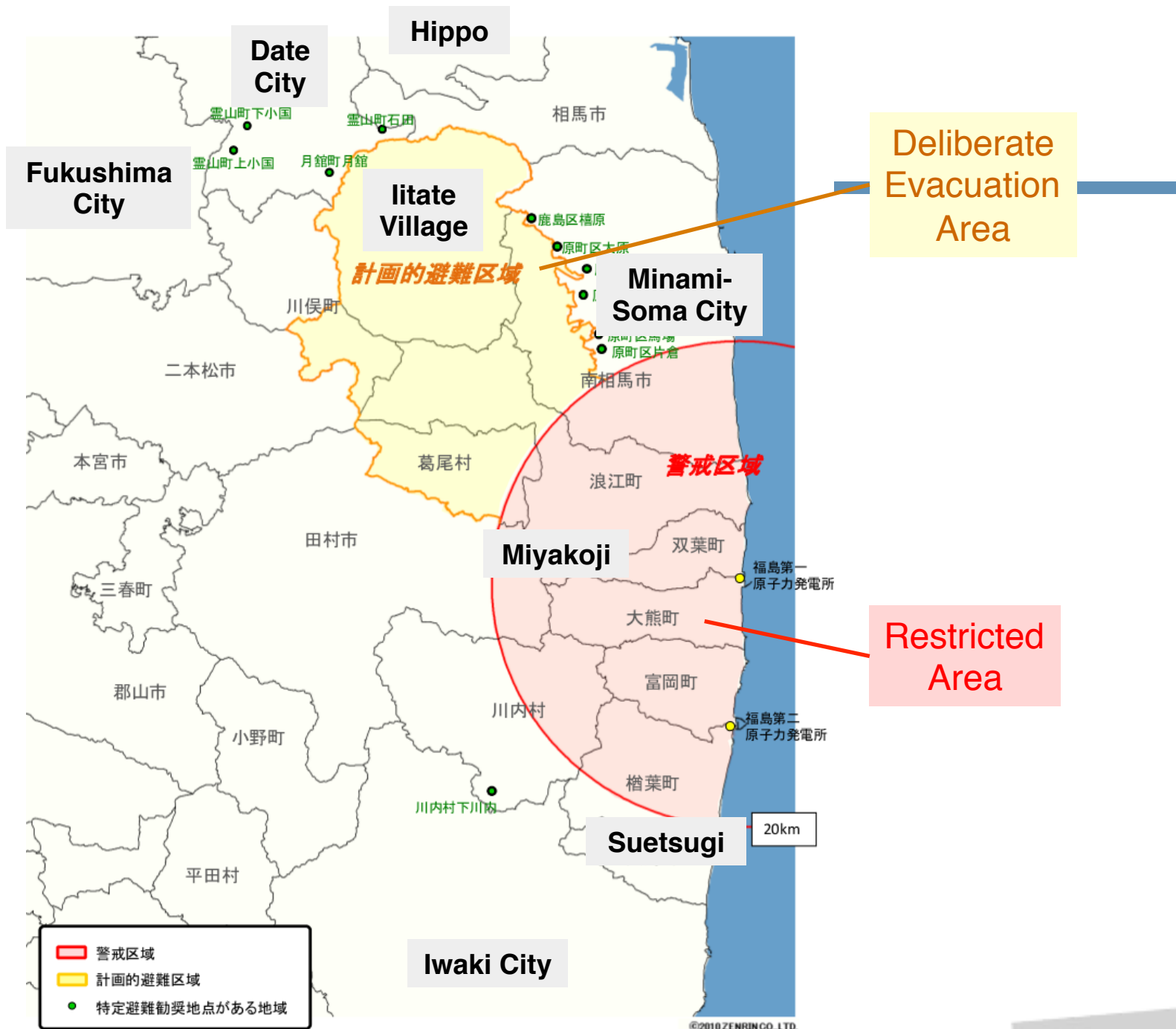


# The stakeholder engagement: authorities, the public and experts

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## The observations in Fukushima:

- Local authorities took charge of the situation with the help of experts and relying on local administration (e.g. Date city and Iitate village)
- Local communities mobilized themselves to initiate actions with the help experts (e.g. Suetsugi and Hippo)
- These experts of very different backgrounds are personally committed to serve the affected people
- National authorities remained away from these local initiatives and are just beginning to take an interest





## Experience feedback from the Japanese colleagues who engage themselves (1)

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- Rapid need for a **reliable and accessible information**
- Need for **training** and important role of **social networks**
- Being **consistent with the scientific knowledge** and **modest with respect to the uncertainties and limits** of knowledge.
- Clear commitment of the authorities and administrations to **serve local communities** and good articulation between the different levels of decision making
- Importance of **engaging local professionals** from education, health and administration and establishing mechanisms for **sustainable cooperation**

## Experience feedback from the Japanese colleagues who engage themselves (2)

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- Do not easily conclude that the situation is safe.
- The major difficulty is to talk about the effects and risks associated with exposure to ionizing radiation
  - The discourse of risk is a dead end
- Respect the values and choices of each person
- Radiation protection is unavoidable but it cannot handle people's lives
  - It must be at the service of individuals and the community
  - Importance of focusing on individual data and their distribution within the community

## Role of co-expertise (1)

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- The process of co-expertise relies on:
  - **Establishment of places for dialogue** allowing experts to listen and discuss together with affected people their questions, concerns, challenges, but also expectations
  - **Assessment conducted jointly** by locals and experts on the situation of the people and their community
  - **Implementation of projects** to address the problems identified at the individual and community levels with the support of local professionals, experts and authorities
  - **Evaluation and dissemination** of results

## Role of co-expertise (2)

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- In Fukushima, it seems that the co-expertise process has been implemented only in a few communities that gradually engaged themselves in concrete local projects
- This process has evolved in a similar way to that of Belarus, however with differences regarding:
  - The personal engagement of voluntary experts and local professionals at the service of the population
  - The means for measurement to characterize the radiological situation
  - The sharing of information via social media

## Experience feedback from the Japanese colleagues who engage themselves (3)

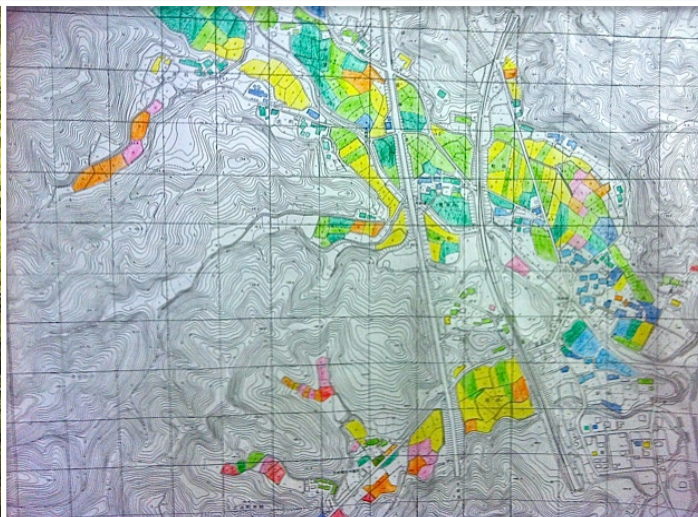
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- Dialogue and measurement are important to restore confidence
- Scientific explanations cannot alone create confidence in the experts
- The key elements to work with the population:
  - Reach out to the population
  - Use a common language
  - Be sincere and commit in the long term
  - Produce tangible results for the population
- Importance of disseminating lessons learned and favouring emulation among communities
- Importance of financial support from the administration to generalize the actions and ensure their sustainability



# Meeting in Suetsugi with ICRP – July 2012

- Questions and concerns -



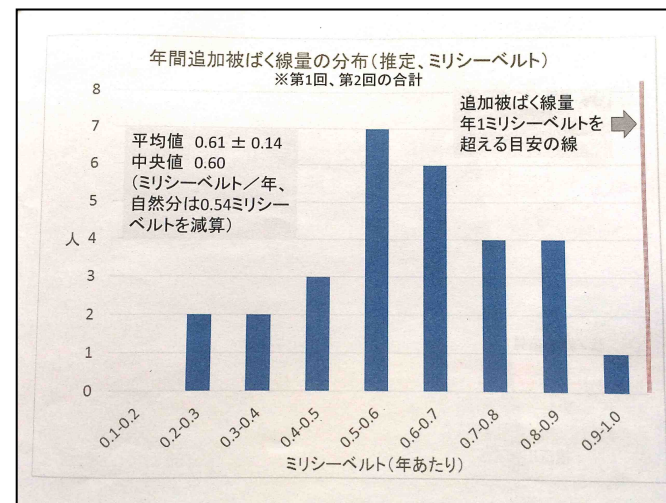
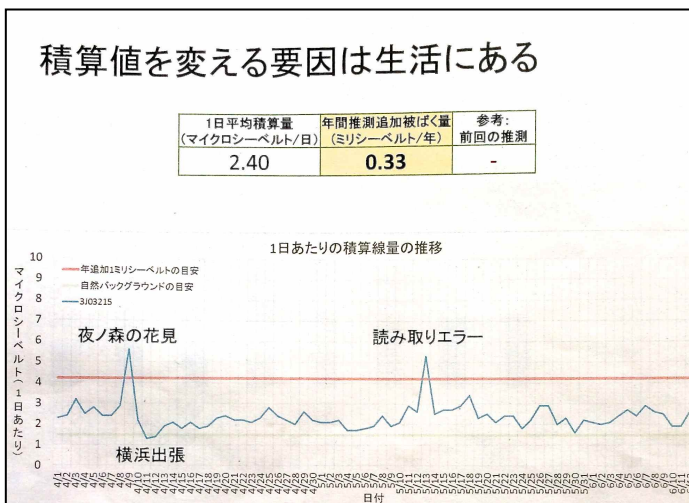
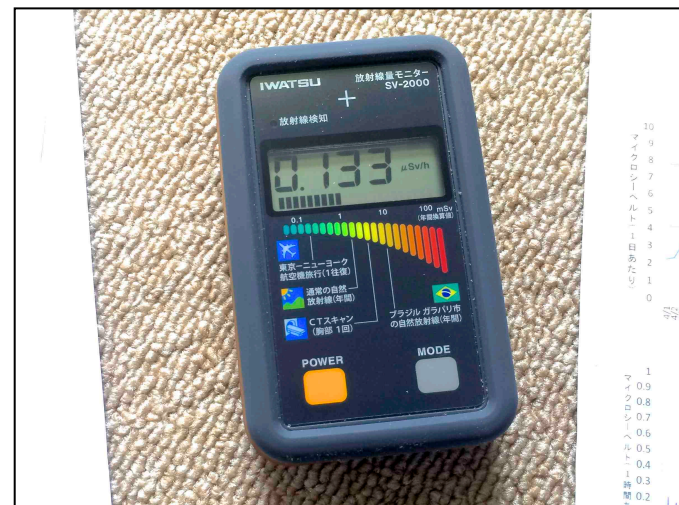


## The development of the practical radiological protection culture

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- Co-expertise leads to promote the practical radiological protection culture within the affected communities, defined as:  
***The knowledge and skills enabling citizens to make choices and behave wisely in situations involving potential or actual exposure to ionizing radiation***
- This progressively allows everyone to:
  - Interpret results of measurements
  - Build her/his own benchmarks against radioactivity in day-to-day life
  - Make her/his own decisions and protect her/himself and loved ones = self-help protection
- Access to measurements by the people with suitable devices is critical

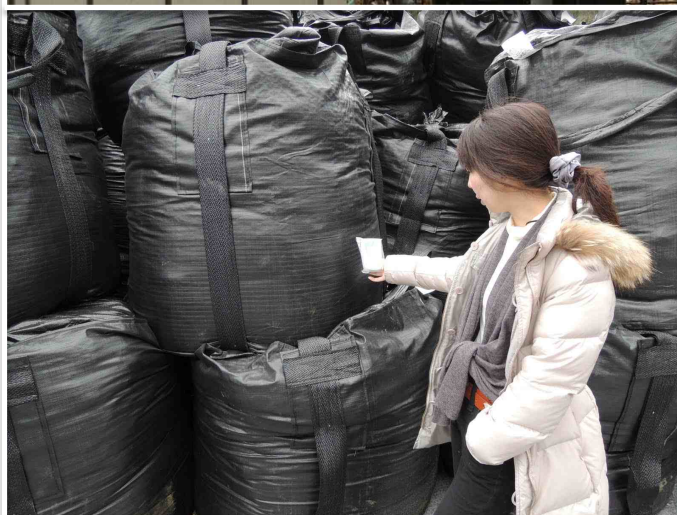
# Assessment of external exposure by citizens in Suetsugi





# Suetsugi – March 2013

- Visit of the decontamination waste disposal site -





# Meeting with ICRP – July 2013

## - Measurements of the products of local gardens -





**Presentation of organic vegetables produced in the affected territories, 7th Dialogue meeting in Iwaki**



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## **BABYSCAN: a whole body counter for small children in Fukushima**

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Babatunde Oginni<sup>3</sup> and Isamu Muramatsu<sup>4</sup>



# Development of the Babyscan



# Communication is the key



Dr. Masaharu Tsubokura, Minamisoma

- ▶ Minamisoma: >1000 families are on the waiting list
- ▶ the  $^{40}\text{K}$  result is helpful in explaining the result
- ▶ a large fraction of parents (still) ask about the safety of tap water
- ▶ *From R. Hayano*

CEPN

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ET DE SÛRETÉ NUCLÉAIRE

- The preliminary lessons from the ICRP Dialogue seminars point out the importance of human dimensions and the role of co-expertise
- Some issues to be dealt with in the perspective of post-accidental preparedness:
  - How to share the information, including the role of social media?
  - How to help the interpretation of the results?

- Further developments are needed, among them:
  - **Stakeholders engagement** processes,
  - Mechanisms to ensure the **coordination and sustainability of protection measures** adopted by the affected people with the support of experts,
  - Organisation of **the scientific and technical work** to answer questions from the affected population related to radiation protection,
  - Development of **decision-aiding processes relying on the cooperation** with local, regional and national professionals from health care, education, administration in charge of environment,
  - Follow-up of the **return of populations** (conditions and means),
  - Long-term **health surveillance** for affected populations.

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- For further information:
    - [www.icrp.org](http://www.icrp.org)
    - <https://twitter.com/hayano>
    - <http://ethos-fukushima.blogspot.com/>

**THANK YOU**  
**FOR YOUR ATTENTION**