Lessons learnt by IRSN about the involvement of experts toward the population in contaminated areas in the Fukushima prefecture
ICRP Dialogue Initiative
for the rehabilitation of living conditions in contaminated territories after Fukushima accident”

- Launched in fall 2011 with Japan Radiation Safety Forum
- Until fall 2015, twelve dialogue seminars gather local actors with experts from Japan and abroad to discuss their concerns and to share local initiatives
- Organised with the support of IRSN, ASN, NRPA and the Committee on Radiation Protection and Public Health of NEA/OECD
- Examples of topics: contaminated foods, raising children, culture,.. or focused on Date, Iitate, Iwaki, MinamiSoma
- An international workshop will be held in Fukushima city in December 2015 to present and discuss the main lessons
ICRP Dialogue seminar – March 2013
Analysis performed by IRSN and CEPN

- Launched in 2013
  - to identify the main lessons which can be learned from these dialogues and benefit to French IRSN experts in the event of a post-accident situation
  - to raise awareness of IRSN experts about human dimensions of post-accidental situations

- Done in cooperation with Japanese stakeholders and experts involved in the dialogues in Fukushima prefecture
Major findings

- The human dimensions 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
The human dimensions

- The human consequences are very similar to Tchernobyl accident
  - Strong worry about health and especially of children health
  - But non only: the irruption of radioactivity is a rupture, which deeply upsets the relationship of man to himself, others and his environment → **total loss of control on daily life**
  - In addition loss of confidence in authorities and experts
    - Feeling of helplessness and abandonment
    - General feeling of discrimination and exclusion
  - 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 for the evacuees
The stakeholder engagement: authorities, the public and experts

- Local authorities or local communities mobilized themselves to initiate actions with the help of experts personally committed

- Experience feedback from these experts
  - The major difficulty is to talk about the effects and risks associated with exposure to ionizing radiation:
    - be consistent with the scientific knowledge and modest with respect to the uncertainties and limits of knowledge
    - do not easily conclude that the situation is safe
  - Radiation protection is unavoidable but it cannot handle people's lives
    - Importance of focusing on individual data and their distribution within the community to be at their service
  - Respect the values and choices of each person
The co-expertise process

- 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, but also expectations
  - Assessment conducted jointly by locals actors and experts (voluntary experts from various places and local professionals) on the situation of the people and their community
  - Importance of means to measure and characterize the radiological situation
  - 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 the results → importance of social media in Japan
Meeting in Suetsugi with ICRP – July 2012
Questions and concerns
The development of the practical radiological protection culture

- Co-expertise leads to promote a **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*

- **Access to measurements** by the people with suitable devices is critical

- 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
Personal dosimeter with 1-hour integrated-dose readout

These

A Fukushima city resident

weekend

holiday weekend

μSv/h

Sep 01 Sep 02 Sep 03 Sep 04 Sep 05 Sep 06 Sep 07 Sep 08 Sep 09 Sep 10 Sep 11 Sep 12 Sep 13 Sep 14 Sep 15 Sep 16 Sep 17

0.0 0.1 0.2 0.3 0.4 0.5
Assessment of external exposure by citizens in Suetsugi
Suetsugi - July 2013
Measurements of the products of local gardens
Suetsugi – March 2013
Visit of the decontamination waste disposal site
Tentative summary and challenges (1)

- Which role for the experts in post-accidental situation?
  - The co-expertise process is the key to regain trust between authorities/experts and inhabitants. It relies on a long term cooperation.
  - To be helpful, scientist need to understand that, as necessary as radiation protection is, it is not the only problem inhabitants are facing and it can not handle people's lives. It must be at the service of individuals and the community.

- Should such a situation happen in France or in Europa
  - What would be the place at local level of a national expert, such as IRSN, …?
  - How can we prepare ourselves to this work with the population?
When radiation comes into your daily life (Pr. Othsura Niwa)

Your everyday life

you

House

children

wife

parents

friend

friend

cat

dog

Job

place

environment
What I have learned (Pr. Nobuhiko Ban)

- Our expertise do not cover all aspects
- People’s perception is the reality
- Have and provide various viewpoints
- Know each one’s situation
- Imagine unspoken words
Development of the Babyscan
BABYSCAN: a whole body counter for small children in Fukushima

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THANK YOU FOR YOUR ATTENTION