

**International Advanced Training Course on  
Stakeholder Engagement for Recovery after Nuclear Disasters  
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**About the co-expertise process**

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# Introduction

- Experience from the Chernobyl and Fukushima nuclear accidents clearly highlighted that in a context of **absence of background knowledge** of the population about radiation risk and **distrust** of authorities and experts, the diffusion of scientific and technical information plays a very limited role in helping people to understand the situation they are confronted with after a nuclear disaster
- This experience also demonstrated that **approaches** integrating the **active cooperation** of those affected into the recovery process enable to **empower** them in order to make **informed decisions** about their own protection and that of their loved ones



# The Chernobyl and Fukushima experience

- **Chernobyl:**

The **ETHOS project** and **CORE program** in Belarus (1996-2008): initiated by a team of French experts in villages of the Stolyn and Bragin districts with the support of the Belarus authorities

## **Fukushima:**

- The **crisis communication experience** from professors of the Nagasaki University (Spring 2011)
- The **Fukushima Dialogue** meetings initiated by ICRP (2011-today)
- The **Kawauchi village experience** (2011-today) : initiated by local authorities and professors of the Nagasaki University with the support of the Japanese government
- The **Suetsugi community experience** (2011-today): initiated by local citizens in cooperation with voluntary experts and the support of local authorities and organizations





Ethos project, Belarus



Ethos project, Belarus

## Chernobyl



Core programme, Belarus



Core programme, Belarus



# The Fukushima Dialogue meetings

## Third meeting on 'Improving the quality of food products'

Date City, July 2012





Kawauchi, Japan

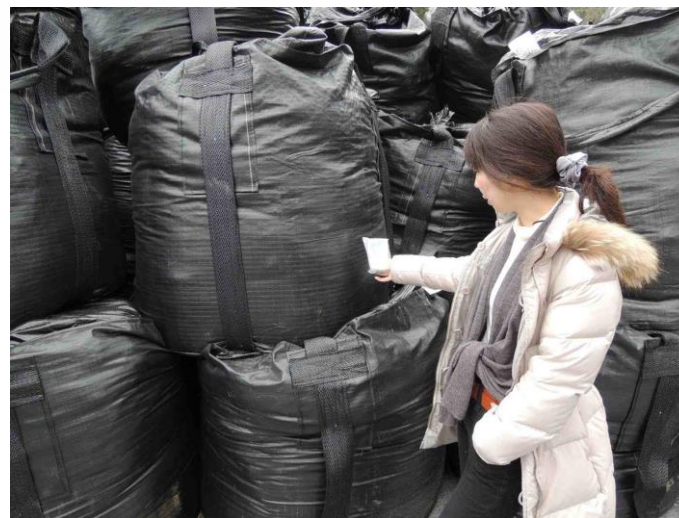


Kawauchi, Japan

## Fukushima



Suetsugi, Japan



Suetsugi, Japan



# Lessons learned (1)

- The most effective way of **engaging affected people in the recovery phase** after a nuclear disaster is:
  - To **listen understand** their **daily concerns**
  - To carry out **measurements with them** in order they understand where, when and how they are exposed. This must be done step by step starting **from the source of exposure** to gradually go to the **exposures** received by individuals through the various exposure pathways
  - To use as much as possible **common language** and the **narration**
  - And never forgetting that communicating about risk only works if there is **trust** between the people affected and the experts / authorities



## Lessons learned (2)

- When engaging affected people, experts should:
  - Adopt a **prudent approach** for managing radiation risk based on the **optimisation principle** i.e. keeping all exposures as low as reasonably achievable
  - Promote protective actions improving the **well being of individuals** and the **quality of the living together** of the community they belong
  - Respect their **individual decisions** while preserving their **autonomy of choice**
  - Keep in mind that the issue at stake is **not to make people accepting the risk** but allowing them **to make informed decisions** about their protection and their life choices
- All of the above lessons have led to gradually develop the so called '**co-expertise process**' (cooperation between experts and stakeholders)





# The co-expertise process



**Combining:**

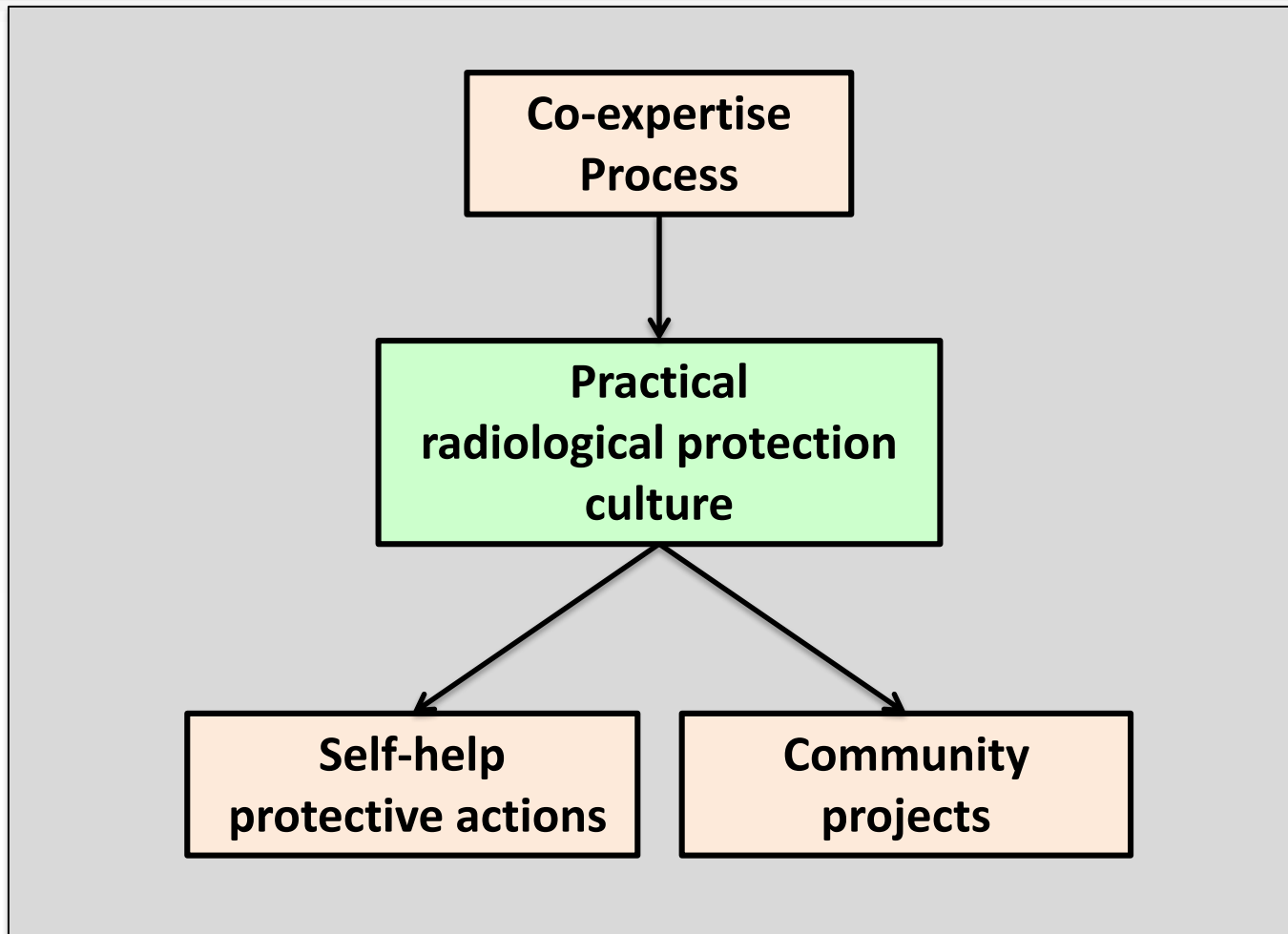


# Practical radiological protection culture

- The co-expertise process promotes the development of a **practical radiological protection culture** among affected people defined as the **knowledge** and **skills** enabling citizens **to make well-informed choices and behave wisely** in situations involving potential or actual exposures to ionising radiation
- The practical radiological protection culture allows people:
  - To **interpret** the results of the measurements of radiation
  - To **build their own benchmarks** in relation to the radioactivity present in their daily life
  - To make their own decisions to protect themselves and their loved ones and to **implement self-help protective actions**
  - To **develop local projects** to improve their living conditions
  - To **judge the effectiveness** of the protective actions implemented by themselves but also by authorities and organisations



## In summary



# The ethical dimensions of the co-expertise process

- To be credible in the implementation of the process experts must:
  - Master the scientific basis of radiological protection and its practical implementation - **Accountability**
  - Share openly all information they own and recognize limitations - **Transparency**
  - Listen carefully to the stakeholders to understand their concerns and individual situations - **Empathy**
  - Deliberate and decide together with stakeholders- **Inclusiveness**
  - Act in accordance with the ethics of radiological protection, that is to say **prudently** and **equitably**
  - Ensure **respect for people's freedom of choice** without manipulating them in any way
  - And above all to remain **faithful** to their commitment over time



## Concluding remarks

- Lessons learned in co-expertise processes implemented in Belarus and Japan demonstrated the feasibility to develop a practical radiation protection culture to **empower** people in order they make **informed decisions** about their **protection** and thus restore their **dignity** and **trust** in authorities and experts
- This requires the mobilization of **specific skills, adapted means of measuring radiation** and the **support of authorities**. It also takes **time...**
- The key of success is to put science and technology **at the service of resolving the concrete problems** people are facing

**‘To work **with** people and not **for** them’**



# References

- Bataille C., Crouail P., 2008. - Rehabilitation of Living Conditions in the Post-Chernobyl Context: Implementation of an Inclusive Radiation Monitoring System in the Bragin District in Belarus. In: Proceedings of the International Conference on 'Radioecology and Environmental Radioactivity' (Part 2), Bergen, Norway, 15-20 June 2008, pp. 129-132.
- Lochard J., 2013. Stakeholder Engagement in Regaining Decent Living Conditions after Chernobyl. In: Social and Ethical Aspects of Radiation Risk Management, Oughton D., Hansson S.O. (Eds.), Radioactivity in the Environment, Vol. 9, Elsevier, pp. 311-331.
- Takamura N, Orita M., et al., 2018. Recovery from nuclear disaster in Fukushima: collaboration model. Radiation Protection Dosimetry, 182(1): 49–52.
- Lochard J., Schneider T., et al., 2019. An overview of the dialogue meetings initiated by ICRP in Japan after the Fukushima accident. Radioprotection, 54(2), 87–101.
- Schneider T., Maître M., et al., 2019. The role of radiological protection experts in stakeholder involvement in the recovery phase of post-nuclear accident situations: Some lessons from the Fukushima-Daïchi NPP accident. Radioprotection, 54(4), 259–270.
- Lochard J., Ando R., et al., 2020. The post-nuclear accident co-expertise experience of the Suetsugi community in Fukushima Prefecture. Radioprotection, 55(3), 225–235.



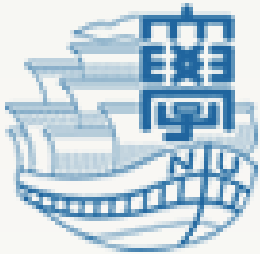
# Thank you for your attention



*Borrowed from Noboru Takamura*

**Kawauchi villagers collecting mushrooms to draw up a contamination map**





# Atomic Bomb Disease Institute

Nagasaki University

<http://www-sdc.med.nagasaki-u.ac.jp/abdi/index.html>

