

Lessons learned in communication from the Fukushima accident

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Background

- The **dialogue meetings** on the rehabilitation of living conditions after the Fukushima accident
- The experience of the **Suetsugi community**
- The focus here is on communication with **people living in the affected territories** and in particular after the accident



The 12th ICRP Dialogue meeting
Date City, Fukushima Prefecture, 2015



The co-expertise process
Suetsugi village, Fukushima Prefecture, 2013

<http://www.fukushima-dialogues.com>



What is at stake in the management of nuclear accidents?

- **The irruption of radioactivity** into people's everyday lives and its long term persistence create an unprecedented **complex situation** which profoundly **upsets daily life**, raises many **questions and concerns**, generates **numerous views**, and exacerbates **conflicts**
- What is at stake is to protect the population against **radiation risk** but also to preserve as much as possible **decent working conditions** on accident site and **living conditions** for the affected people off-site
- These objectives are part of the overall ethical perspective shared by all ethical theories which is to ensure at the same time:
 - the **well-being of individuals** and
 - the **quality of the living together**

The human dimension of nuclear accidents

- The testimonies of the Fukushima residents have confirmed what had already been observed in the affected areas after the Chernobyl accident, namely:
 - the **collapse of trust** in authorities and experts
 - the **loss of control** over everyday life
 - the **disintegration** of family and social ties and the **breakdown** of the economic fabric
 - the **apprehension about the future**, particularly that of children
 - the **threat** on the autonomy and **dignity** of affected people
 - the **fear to be abandoned**
- They also revealed the total **lack of radiological protection culture** within the population and the **deep footprint of Hiroshima-Nagasaki** (among others the fear of genetic effects)



Why communication about radiation risk is a challenge?

- There is **no direct sensorial relationship with radiation**. Everything passes through language, hence the importance of **trust in the word of the others**
- Experts and professionals **use of the scientific language to communicate**. As a consequence they are not understood by laypeople and there are very few words in the common language to speak about radiation
- The perception of radiation risk is largely dominated by the **images and narratives of Hiroshima-Nagasaki**, as well as of the **Cold War**
- The inevitable and recurring **debate among experts on the effects of low levels of radiation and issues surrounding nuclear energy** maintains confusion in the minds of people
- As a result, this situation leaves the vast majority of people in **ignorance and voiceless**, and polarizes an acting minority on irreconcilable antagonistic positions



Why communication about radiation risk is a challenge?

- In the context of a nuclear accident, the **loss of trust** in the authorities and experts combined with the lack of radiological protection culture, the images of the past, and the avalanche of conflicting views of the media and experts, makes conventional communication about radiation risk **inoperative**
- As a reminder, the **key stages of risk communication**:

- 1) Get the numbers right
- 2) Tell them to publics
- 3) Explain what the numbers mean
- 4) Show publics they have accepted similar risks before
- 5) Explain how risk benefits outweigh the costs
- 6) Treat publics with respect
- 7) Make publics partners with risk communicators

According Baruch Fischhoff



Lessons learned in communication (1)

- Experience shows that the most effective way of communicating the risk of radiation in a post-accident situation is **to engage affected people in the characterization of their individual radiological situation** in relation to their daily concerns and to help them interpret the results together with people in their community
- The keys factors for successful risk communication:
 - **Listening and understanding** the concerns expressed by the affected people
 - **Engaging them in measurements** to understand where when and how they are exposed
 - Proceeding step by step starting **from the source of exposure** to gradually go to the **exposures received by people** through the exposure pathways
 - Using as much as possible **common language and narratives**
 - And never forgetting that **risk communication only works if there is trust**



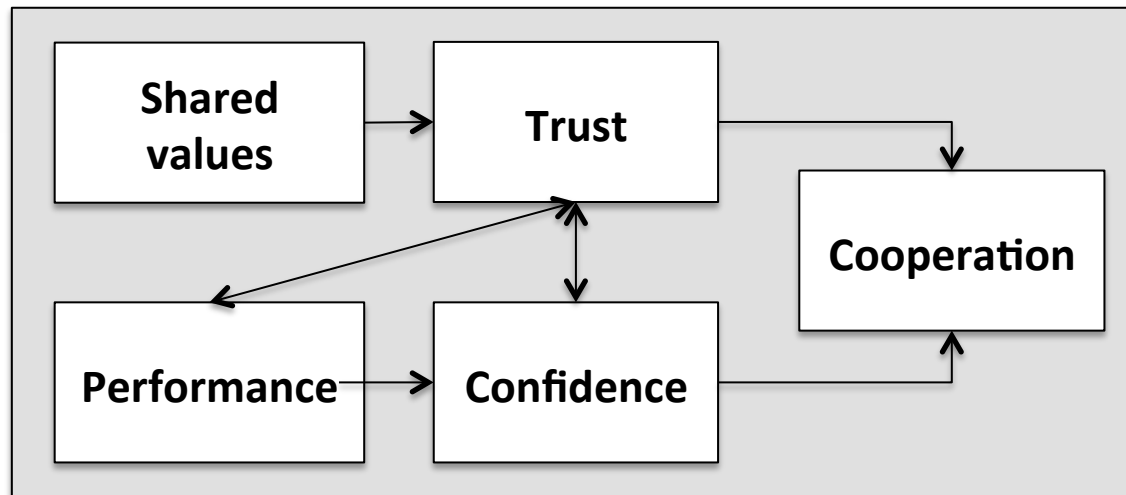
Lessons learned in communication (2)

- When communicating about radiological risk, experts should:
 - Adopt a prudent approach for managing risk based on the **ALARA principle**
 - Promote protective actions improving the **well being of individuals** and the **quality of the living together** of the community they belong to
 - **Respecting 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 process that we have called '**co-expertise process**' (cooperation in expertise) to communicate effectively with people residing in affected areas after a nuclear accident



The co-expertise process

- The **co-expertise process** emerged in the late 1990s in Belarus in the context of the rehabilitation of living conditions in the territories affected by the Chernobyl accident. It has been enriched and refined in recent years through the experience gained in communities in Japan affected by the Fukushima accident particularly in **Suetsugi**
- This process is consistent with the **Trust, Confidence and Cooperation model** developed by experts in risk perception and communication



Timothy Earle and Heinz Gutscher

<https://understandingsocialtrust.wordpress.com>



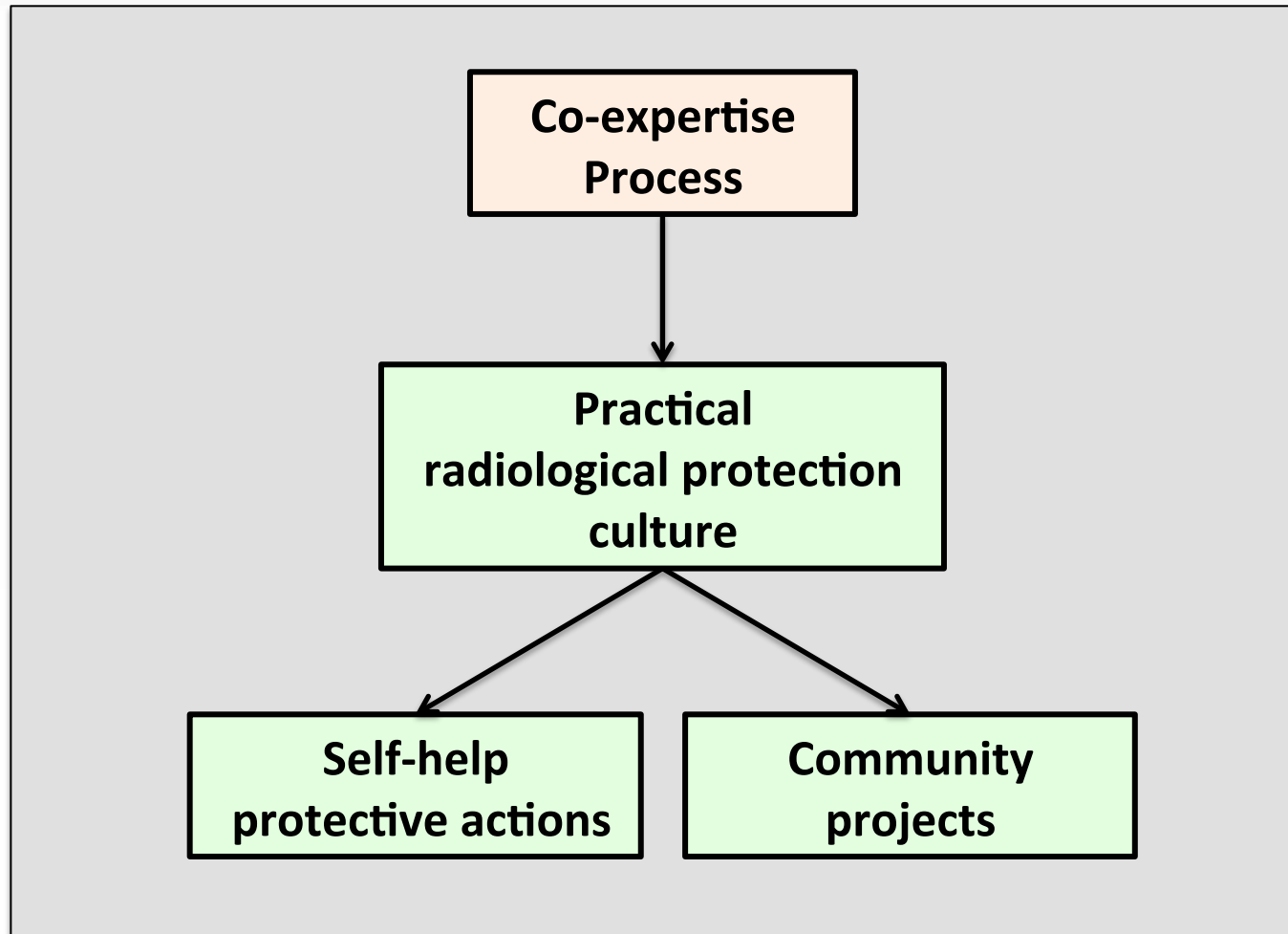


The co-expertise process
ETHOS Project, Olmany village, Belarus, 1996-2001

The co-expertise process (1)



The co-expertise process (2)



Practical radiological protection culture

- The co-expertise process contributes to develop a practical radiological protection culture allowing 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
 - To **judge the effectiveness** of the protective actions implemented by authorities, organisations or by themselves
- This culture presents features that are **common to all exposures situations**, but it is implemented with **different means** at work, in the medical domain and in everyday life

A definition: The **knowledge** and **skills** enabling citizens **to make well-informed choices and behave wisely** in situations involving potential or actual exposures to ionising radiation. *ICRP Glossary under development*



The ethical dimensions of the co-expertise process

- Experience from Chernobyl and Fukushima has shown that to be credible 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 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**
 - Do not to lose sight of the fact that what is ultimately at stake is the **dignity** of people



Concluding remarks

- The experience of Chernobyl and Fukushima has shown that it is possible to communicate effectively about radiation and radiological protection with the affected people
- This requires the mobilization of **specific skills, adapted means of measuring radiation** and the **support of authorities**. It also takes times...
- The key of success is:
 - to put science and technology **at the service of resolving the concrete problems** people are facing
 - to ensure **respect for people's freedom of choice** without manipulating them in any way, but also **not to abandon them to themselves**

To work **with** people and not work **for** people



Thank you for your attention



**Inspection visit by villagers of the Suetsugi
decontamination waste storage site**

