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.
Content

- 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)

- 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's health
  - General feeling of discrimination and exclusion
  - Feeling of helplessness and abandonment
  - Loss of control on daily life and apprehension of the future
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

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)

- 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)

- 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)

- 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)

- 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)

- 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

- 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 -
In the case of the Chernobyl accident, the stakeholder involvement was essentially driven by the European team through the Ethos and Core projects! The green light was given by the national and local authorities for developing projects with the local stakeholders but without direct involvement of national experts! Local people were ready to work but ask for clear commitment of the European team to work honestly and in the perspective of improving the local situation! In practice, local people experimented and established progressively a network of “active stakeholders” on the basis of concrete issues (health of the children, clean production, education…)! Progressively, local professionals and national experts were ready to be involved and were leading the development of the practical projects!

In the case of the Fukushima accident, there have been rapidly the self-organisation of local citizens, involvement of experts to help the decontamination activities and organisation of the monitoring!

Presentation of organic vegetables produced in the affected territories, 7th Dialogue meeting in Iwaki
BABYSCAN: a whole body counter for small children in Fukushima

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Development of the Babyscan
Communication is the key

Dr. Masaharu Tsubokura, Minamisoma

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

- www.icrp.org
- https://twitter.com/hayano
- http://ethos-fukushima.blogspot.com/

THANK YOU FOR YOUR ATTENTION