Insights from innovative approaches developed in post emergency situations – a way to engage populations living in contaminated territories and inform and communicate on the real situation at stake

M. MAITRE
CEPN, 28 rue de la Redoute, 92290 Fontenay-aux-Roses, France
E-mail address: melanie.maitre@cepn.asso.fr

T. SCHNEIDER
CEPN, 28 rue de la Redoute, 92290 Fontenay-aux-Roses, France
E-mail address: thierry.schneider@cepn.asso.fr

E. GALLEG0
UPM, Jose Gutierrez Abascal, 2 E-28006 Madrid
E-mail address: eduardo.gallego@upm.es

1. Introduction

The Chernobyl and Fukushima accidents have caused significant social and economic disruptions that have affected the local populations, with effects extending over years or decades, inevitably impacting their health and well-being. It appears that affected populations are very concerned about their living conditions, and these concerns encompass various aspects (health, environment, economy, etc.). However, they generally lack information, support and basic knowledge to cope with this kind of situation. Following the Chernobyl accident, several studies have highlighted the need for developing new and innovative approaches to respond to concerns of populations affected by long-lasting contamination of their environment and to improve their living conditions. And the recent feedback from the Japanese situation - 7 years after the Fukushima accident – confirms these conclusions. It also shows that, thanks to the progress of digital technologies, people living in contaminated territories have now the means to measure the radioactivity of their environment, share these results through various networks and so, regain progressively control of their daily life.

In this context, this paper aims to examine how these innovative approaches can represent an occasion to engage people living in contaminated territories, answer to their concerns, and to inform and communicate on the situation at stake. This paper will also inquire the role of radiation protection experts in that kind of situation.

2. Method

To achieve this objective, this paper will propose a review of several European projects dedicated on people living in contaminated territories (ETHOS [1], FARMING [2], SAGE [3], EURANOS [4], CORE [5], PREPARE [6] [7] [8] [9], SHAMISEN [10]) as well as insights from studies currently conducted in Japan, which are based on interviews, testimonies and main outcomes from the ICRP Dialogue initiative in Fukushima [11].

3. Results

After a nuclear accident, a mistrust towards institutional experts and authorities progressively builds up and induces that communication and counselling actions towards public cannot be effectively and trustworthy done directly by traditional national experts. To grasp the situation at stake, some innovative approaches have been developed and lead to the following results:
• Instead of turning to the competent authorities, people living in affected territories preferably refer to reliable local persons (local facilitators) such as local medical doctors, nurses, teachers and elected people. These facilitators ensure a liaison role between the national and local levels by relaying and balancing the scientific expertise with the local concerns and context. This calls for developing dedicated structures for dialogue contributing to develop a practical radiological protection culture at the local level and to improve the well-being of affected population.

• The participation of affected populations to self-help protection actions and measurement (of foodstuff, environment, external dose, etc.) provide people with opportunities to regain control over their daily life. It helps people to understand what is at stake in their own environment and how they can take decision to avoid or mitigate individual exposures. In that way, they become actors of their own radiation protection and engage themselves to the recovery of their territory. However, to be effective, these initiatives should be sustained first by the authorities and radiation protection experts and notably thanks to the dissemination and the transmission of the radiological protection culture through current stakeholders and future generations.

• The situation in Fukushima shows that now, with digital progress, local populations are using mobile and connected measurement devices that propose real-time results of their environmental contamination. These results are then collected to citizen monitoring networks which come in parallel with the official environmental monitoring. In this context, the whole question is to know how the approaches developed by citizens and national and local authorities can be reconciled to build a common project of characterization of the territory?

4. Conclusions

Following a nuclear accident, information, communication and public involvement can be effective thanks to innovative approaches which respect the dignity and the autonomy of people living in the contaminated territories. Then, radiation protection experts can play a key role consisting on giving advises on radiation protection, training local facilitators, training local inhabitants to make their own measurements, etc. The challenge lies in preparing these experts to play this role, and to be ready to take into account and respond to all concerns of local populations, which often goes far beyond the ‘simple’ issue of ionizing radiation. Ethical considerations (e.g. justice, equity, freedom, etc.) are also aspects that experts need to have in mind in the empowerment process of local stakeholders.

This type of questioning is one of the research topic currently addressing by the WG 'Information, Communication, Participation' of the European platform NERIS, which aims to develop recommendations on information to the public, communication among experts and stakeholders and to enhance participation of relevant stakeholders in the Emergency Preparedness and Response process. The current outcomes of this WG will be also highlighted during this presentation.
References


[10] SHAMISEN Project, Collective authors (2017). Recommendations and procedures for preparedness and health surveillance of populations affected by a radiation accident. ISGlobal (CC BY-NC4.0)