

Supporting societal and economic dynamic of recovery: lessons from Chernobyl and Fukushima

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- **Chernobyl and Fukushima experience** has demonstrated that rehabilitation of living and working conditions in affected areas is a complex process with all dimensions of individual and community life involved and interconnected. A double challenge:
 - Protecting people and the environment
 - Maintaining and supporting the dynamic of socio-economic activities
- Rely on the direct involvement of the affected people and local communities: **the co-expertise process**
- Require the adoption of **governance mechanisms** respecting ethical and social values

Lessons from experience (1)

- After a nuclear accident people are lost, they no longer trust the authorities and experts, they gradually loose control of their daily life, there is a **threat on their dignity**
- The return to the ante situation is not possible:
 - Fully removing radioactivity is not achievable
 - Many human and societal consequences are irreversible (departures, etc.)
 - Disruption of communities induces **ruptures and complex dilemmas**
- The socio-economic dynamic is confronted to an **altered context** with **new constraints** (demography, image, environment...)

Lessons from experience (2)

- Radiation protection, although essential to protect people (those who stayed and those who settle) is not able to provide the answers to ensure socio-economic development
- Respect of standards is not enough to rebuild confidence of people in the recovery process within the affected areas and outside
- **Rebuilding social trust** requires **involving people** and relies on **direct relationships** between stakeholders
- A key challenge of the recovery process is to **respect individual choices**

Lessons from experience (3)

- Radiological protection must be put at the service of **improving the living conditions** in the affected areas i.e. promoting individual well-being and the quality of the living together
- The socio-economic development must take into account the radiological context, contribute to the **protection of people and the environment** and the **maintenance of vigilance**
- None of the stakeholders and none of the decision-making levels (local, regional, national) holds the solution alone
- The contribution of **local communities** is specific and unavoidable as a driving force for long-term rehabilitation

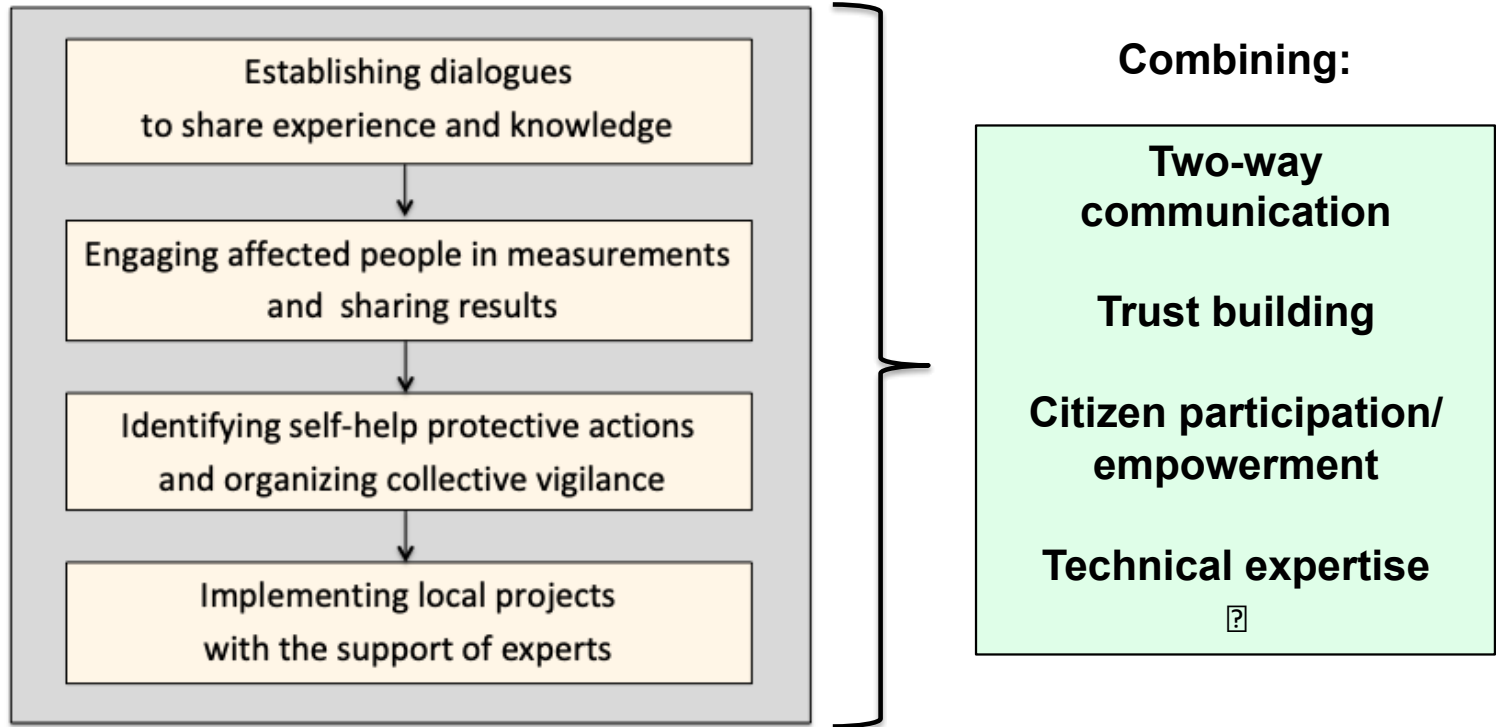


The co-expertise process* (1)

- Emergence in the late 90s in the context of the ETHOS project aiming at **rehabilitating the living conditions** in villages of Belarus affected by the Chernobyl accident
- Based on the **direct involvement** of affected people to characterize their personal radiological situation and that of their community and implement actions to protect themselves and improve their quality of life with the support of experts and authorities
- **Refinement of the process** in communities affected by the Fukushima accident: Kawauchi, Seutsugi, Yamakiya, ...

**Co-expertise process is an abbreviation for cooperation between experts and stakeholders*

The co-expertise process (2)



Dialogue, measurements and local projects are the three pillars of the co-expertise process

The role of the dialogue

- It allows affected people to ask questions, share their concerns, challenges and expectations and gradually **become familiar with the basic notions of radiological protection**. It allows experts take ownership of the local situation.
- Dialogue allows the **plurality of points of view** to be expressed. It is the means to question ready-made representations, false ideas, incantatory speeches and unrealistic points of view and also to identify the values shared by the local communities.
- **Listening** and **empathy** are the required qualities of experts

The role of measurements

- Measurement is a way of making the invisible and the frightening visible and of giving everyone the keys to understand **where, when and how he/she is exposed** and thus apprehending reality.
- Whether it is those who have decided to stay, those who wish to return or even those who want to come and settle in the affected areas, all must understand the reality they are or will be faced with in order to make **informed decisions**
- Experience has shown that **sharing results** of measurements to discuss and compare individual situations is a powerful means to **identify possible actions** to improve the protection of involved people

The role of local projects

- Beyond their practical objectives (protecting individuals and the community, improving living and working conditions, etc.), local projects are a means for those involved to find again the meaning of **personal fulfilment** stopped after the accident and to look again positively at the future
- To effectively implement these local projects, **cooperation** with the competent authorities, public and private organizations, experts and professionals is essential
- The support of local projects requires to establish appropriate mechanisms to ensure **legitimacy, transparency and fairness of the decision-making process**



The governance of socio-economic activities (1)

- The rehabilitation of decent and sustainable living conditions must be based on a **'long term vision of the territory'** co-negotiated between all the actors concerned: national, regional and local authorities, expert scientists, professionals and of course the people directly affected by the accident
- The challenge is to articulate a **sustainable framework**:
 - The restart of social and economic activities put in the aftermath of the accident
 - The emergence of new and innovative activities in line with the local context
 - The support for local projects led by individuals or communities
- It must also aim at the **constant improvement of the radiological situation**



The governance of socio-economic activities (2)

- The technical and administrative management of the economic development is essential and must be done while respecting the ethical values structuring radiological protection
 - **Beneficence and non-maleficence**: promote the well-being of individuals and the quality of living together
 - **Prudence** : promote health surveillance because of scientific uncertainties and public concerns
 - **Justice**: support all those affected by the accident
 - **Dignity**: empower the people concerned so that they regain their autonomy
- Economic development, like implementing protective actions, must involve stakeholders (**inclusiveness**), in all honesty and openness (**transparency**) and in explaining, justifying, and taking responsibility for the proposed actions (**Accountability**)



The governance of socio-economic activities (3)

- Adoption of a **new approach to expertise** in which scientists, experts, professionals are at the service of local actors in order to facilitate the development of their capacity to assess and manage their own situation and that of the effected areas
- **Monitoring and evaluation of local projects** with all stakeholders (co-assessment of the situation and problems) in order to adapt strategies and policies as the recovery process evolves
- **Capitalizing** on the accumulated experience and **making it accessible** to all affected areas and also internationally



The governance of socio-economic activities (4)

- Past experience has shown that communities having participated to co-expertise experiences are keen to develop local projects in the domains of radiological protection, social activities, economic development but also **education, memory and culture**
- In the recovery process memory is not only for commemoration but also serves as a **living reminder to raise awareness, to maintain vigilance, to pass on experience and so build the future.**
- Involvement of the **education system** (schools and universities) is a crucial way for the **transmission of experience to the next generation.**

Concluding remarks (1)

- The management of the recovery process must be linked to the '**long-term vision of the territory**' taking into account the health, social, environmental, economic, cultural, memorial dimensions, etc.
- The objective is to restore individual well-being and the quality of community life in the affected areas where people are allowed to reside. This implies to develop **a sustainable socio-economic framework** articulating:
 - The redeployment of **infrastructures** and **socio-economic activities** including innovative projects
 - The support of **local projects** initiated by individuals and local communities
 - The **dissemination** and **transmission** of the gained experience in managing the situation

- A few experiences of communities affected by the Chernobyl and Fukushima accidents have shown that to be successful the recovery process must rely on **governance mechanisms** securing:
 - An **open dialogue** between all stakeholders
 - **Experts at the service** of the affected people
 - The **empowerment of individuals and local communities** to decide together the values and principles for a common future
 - The **support of authorities**



*Thank you
for your attention*

ご清聴ありがとうございました