

## Stratégies de gestion des denrées alimentaires et du milieu agricole

### *Management of contaminated goods in post-accident situation – Lessons learned from Fukushima*

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Feedback analyses from post-accident situations, as Chernobyl and Fukushima, have clearly emphasized the importance of management strategies for contaminated goods during the days, months and years after the accident. Indeed, following the accident, the response generally focuses on the implementation of protective actions, radiological countermeasures and the control of radioactivity in foodstuffs, in order to ensure the quality and sales of the products. Then, issues concerning the loss of image of local products can appear, and subsequent strategies have to be taken to restore the consumer confidence.

Based on a literature review and interviews performed in 2017-2018 with Japanese stakeholders involved in the Fukushima-Daiichi NPP accident recovery, this presentation proposes an analysis of the strategies for the management of contaminated goods which have been implemented in Japan.

Major lessons learned from this analysis reveal that, today, many strategies have been implemented to regain the food safety and the confidence of consumers. These strategies have involved various actors (producers, retailers, local and national authorities, citizen and consumers' associations, etc.). There are all committed, each in their own way, to ensure the quality of the products and their promotion to the public.

Key elements of these strategies are:

- The implementation of agricultural countermeasures to minimize contamination of foodstuffs;
- The development of a comprehensive radioactivity control system to ensure the radiological quality of goods produced in the Fukushima prefecture. Associated with this control, specific reference values had to be defined;
- The establishment of a compensation system, to indemnify producers for the loss of earnings due to the accident;
- The choice to sell local products at reduced prices, to maintain sales volume, as well as preserve farming activity and processing industry;
- The implementation of circumvention strategies (e.g. renaming) or conversion strategies (e.g. toward organic farming) to ensure sales of local products;
- The constant improvement of the overall quality of products (notably their taste) to restore the confidence of consumers;

- The development of new partnerships and stakeholder networks seeking in particular to characterize as accurately as possible the radiological situation of their local products;
- The implementation of actions aiming to promote and advertise local products as well as certify the quality of the products.

Therefore, exceptional resources have been implemented in Japan since the Fukushima accident to revitalize the socio-economic activity of the affected territories, where profound social and demographic disturbances have been brought by the accident. Indeed, Fukushima-Daiichi NPP accident has accelerated the decline of agricultural activities in the Fukushima prefecture. Affected areas are changing dramatically: many innovative projects, supported by the government, are emerging as part of an economic reorientation (photovoltaic farms, waste treatment industry, robotics, drones, etc.). In such a context, the sustainable recovery of agricultural activities in this territory remains a real challenge.

Also, the future of the radiological control system remains a whole question. The fact is that almost all measurement results show now concentrations below detection limits, and the people have less and less interest for measuring radioactivity in food and other goods. This raises the following question: how to maintain vigilance and sustain the radiological protection culture within these territories?

Finally, while the consumer confidence in local products appears to have improved significantly within the Fukushima prefecture, this seems not to be the case for consumers living outside. Therefore, it is necessary to further explore the evolution of the behaviour of these consumers as well as how authorities, local producers and retailers will tailor the response in the forthcoming years.