Recovering from the Great East Japan Earthquake

Reconstruction of the areas with radioactive contamination

Restoring the environment to make progress

The radioactive materials released into the environment by the accident at Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Plant caused massive environmental pollution. The air dose rate is declining due to physical attenuation, decontamination work, and other factors, but there are still large amounts of radioactive materials in the environment.

The accident had a major impact on our society, with approximately 154,000 people in Fukushima prefecture moving away from their home town as of March, 2013. Even some local authorities such as Tomioka town and Futaba town have moved their offices to other locations inside and outside of Fukushima.

The accident also heavily impacted industries. Agricultural products were subject to shipment restrictions and their reputation was damaged by harmful rumors. Eventually the rice-field acreage in Fukushima prefecture has declined dramatically and the prices for vegetables and other Fukushima products have dropped. In contrast, industrial output has largely recovered to pre-disaster levels, but a full recovery is still a challenge.

Airborne monitoring survey of radioactive substances (Left: Air dose rate at 1m above ground surface, Right: Deposition of radioactive cesium on ground surface)



Source: Nuclear Regulation Authority, Results of the Sixth Airborne Monitoring Survey, (November 16, 2012)

Population changes in the three prefectures hardest hit by the disaster



1. Population figures for lwate, Fukushima, and Miyagi are compiled from 2010 Population Census of Japan, Basic complete tabulation on population and households, Ministry of Internal Affairs and Communications.
2. Figures for in-migrants are totals compiled from notifications of residence given to heads of municipalities.
3. The bar graph (left axis) shows net migration into the prefecture, and the line graph (right axis) shows the net migration rate (relative to the prefecture's population).

Source: Annual Report on the Internal Migration in Japan Derived From the Basic Resident Registers, Ministry of Internal Affairs and Communications, compiled by Ministry of the Environment

In order to reduce the impact of the radioactive materials released into the environment by the accident at Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Plant on people's health and daily lives, decontamination is being performed by both national and local governments under the provisions of the Act on Special Measures concerning the Handling of Radioactive Pollution (*) A higher priority has been given to decontaminating schools, kindergartens, and other locations where children spend their time every day. Housing is decontaminated with land owners' agreements one by one. Initially decontamination was scheduled to be completed for a period of two years, from 2012

%The name of the act - literally translated into English



Children happy to be back in Kawauchi Village

Photo: Kawauchi Village

to 2013, but the situation is to be re-examined in summer, 2013, approximately six months prior to the end of FY, so that it can be reviewed if necessary. Radioactive contamination hindered holding traditional local festivals outdoors in many areas of Fukushima, such as Soma Nomaoi festival, one of significant intangible folk cultural assets. It had been celebrated by local people for over a thousand years; however it had to be cancelled in 2011 in the aftermath of the earthquake. But there was strong request by the people to hold the festival as usual. In response, the festival grounds were given priority for decontamination, and it came back to the town

Soma Nomaoi Festival returned to the calendar

after two years of absence in 2012.



Photo: Fukushima Pref./Ministry of the Environment Decontamination Information Plaza

Some municipalities are proceeding quickly with decontamination and making good progress on reconstruction.

Kawauchi Village in Fukushima prefecture is the one from which all the villagers evacuated following the nuclear accident, and is now calling for them to return. Decontamination of the living environment of children such as schools had been completed in March, 2012, and nearly all the houses had also been decontaminated by March, 2013. The original population of Kawauchi Village was about 3,000, and approximately 40% of them have now returned; some have returned to spend their time about four days a week. The returnees are largely the elderly, while the most people in their twenties or under have been expected to return, and 40 children have already been back to schools and a kindergarten. In an attempt to create local employment to encourage more people to come back, the village has invited private companies to set up factory operations and has built vegetable factories. They even have a plan under way to construct commercial facilities. To create the new Kawauchi Village, the village is making steady progress both with decontamination and provision of infrastructure.

Hirono Town is a coastal town in the Hamadori area of Fukushima prefecture. A large proportion of people of Hirono Town evacuated and has still lived outside the town, In March, 2012, the town office returned to Hirono Town and has encouraged many people to return, who evacuated and still live outside the town. Decontamination of schools was given top priority, the living environment of children had been fully decontaminated by August, 2012, and nearly all the houses were decontaminated by March, 2013. Even 60%-70% of the farmland has been decontaminated. These efforts of the town have been paid off, and 100 children, about one fifth of the original number of children before the accident, have returned to local schools.

Radiation levels in Hirono Town were lower than those in other towns nearby, so they are leading the way in reconstruction. They believe that their determination to accelerate reconstruction will support their neighbors to follow.

Action to address concerns about mid- and long-term effects of radiation on health

Concerns about low dose levels of radioactivity remain as a significant issue.

Fukushima prefecture is conducting surveys of all Fukushima residents for the purpose of mid- and long-term health management. One objective is to inquire about the whereabouts of each individual in the aftermath of the nuclear accident in order to assess his or her radiation dose. All residents under age 18 at the time of the disaster are also to receive thyroid ultrasound tests and medical checkups. In addition, there are tests using a whole body scanner to measure internal dose. Furthermore, children and expectant mothers are given personal dosimeters (glass badges, etc.) To ensure a proper implementation of this mid- and long-term health management for Fukushima residents, the national government has established the Fund for the Health Management of Fukushima Residents in the amount of 78.2 billion yen.

On the other hand, the following issues were raised at the time of consultation.

- (1) Was the information delivered properly from the counselors to the people, apprehending their health concerns? (in simple words, etc.)
- (2) Wasn't there a lack of communication between each other (or wasn't there too much one-way communication from the experts)?
- (3) Were sufficient people and opportunities made available to alleviate people's anxieties?

To address these issues, a liaison council chaired by the Minister of the Environment was set up in April, 2012 to seek what action could be taken to counsel about health concerns of the people affected by the nuclear accident. In May, an action plan was drawn up. This has formed the basis for current work to strengthen the bonds and generate mutual understanding among the people, the experts, and all the entities concerned.

Outline of health management for residents of Fukushima prefecture

Health management for Fukushima residents (applies to all residents)

Estimating individual radiation exposure (basic data)

Basic survey

Target: All residents in Fukushima prefecture on March 11, 2011

Method: Self-report questionnaire

Content: Inquiry about whereabouts on and after March 11, 2011 (Assessment of estimated radiation exposure levels)



Continuing health management

Fukushima resident's health management file

- Records and organizes each individual's health survey data and results of tests

- Informs residents about radiation

Health management database

- Used for residents' long-term health management and treatment
- Conveys knowledge gained from health management to future generations

Assessing health

Detailed examination

Thyroid examination

(for all Fukushima residents up to age 18, including evacuees currently liviing outside of Fukushima prefecture)

Examination: Ultrasound examination of thyroid * Aims to cover all the target population within about 3 years, then at regular intervals afterwards

Health checkup (conventional health examination)

Target: All residents of evacuation zone, other residents identified by basic survey Content: Standard checkup + differential white blood cell count,

- etc.
- Target: Residents of areas other than evacuation zones, etc. Content: Standard checkup

Consultations, support

Regular health checkups at place of work or local municipality, cancer screening, etc. enable early detection and treatment.

Treatment

Checkups performed for the residents previously not eligible for

Mental health & Lifestyle Survey

(Questionnaires for the residents of evacuation zones, etc.)

Survey of expectant and nursing mothers

(Questionnaires for the women who applied for a Maternal and Child Health Handbook between August 1, 2010 and July 31, 2011)

Follow-up

Source: Ministry of the Environment

- Whole body counter

- Personal dosimeter

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