Radiation and Fukushima's Future

Asia-Pacific Journal Feature

Between 2012 and 2014 we posted a number of articles on contemporary affairs without giving them volume and issue numbers or dates. Often the date can be determined from internal evidence in the article, but sometimes not. We have decided retrospectively to list all of them as Volume 12 Number 30 with a date of 2012 with the understanding that all were published between 2012 and 2014.

serious decontamination efforts in the most effected zones have yet to begin.

Projection: No return to 7 areas near Fukushima plant for 5 years

Asia-Pacific Journal Feature

In the climate of fear and uncertainty problems will remain serious ones for years.

concerning current levels of radioactive contamination in Fukushima Prefecture and their potential impact on public health, new government reports are indicating that these Asahi Shimbun

April 23, 2012

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Below are recent reports from Asahi and Jiji concerning the extent of contamination in Fukushima and the likely medium and longterm prognosis. Several areas of Fukushima will have high radiation levels for at least a decade and it will be 5 years or more before residents of the municipalities closest to Fukushia Daiichi will be able to consider returning to their homes. The Japanese government is deliberating buying the area around Fukushima Daiichi, including residential properties, and making it public land. The government's Reconstruction Agency

is also investigating whether or not evacuees are interested in returning at all. At this stage, Bereft of decontamination work, residents will be unable to return home for at least five years in seven municipalities around the crippled Fukushima No. 1 nuclear plant, according to the government's radiation projection charts.

The charts, based on aircraft monitoring in November, show projected annual radiation doses until the end of March 2032 in areas that have not been decontaminated.

Released for the first time at a meeting with



officials of Futaba county, Fukushima Prefecture, on April 22, the charts will be used to help evacuees and municipalities work out arrangements for their return to their hometowns near the nuclear plant.

However, the central government has not come up with specific plans on decontaminating areas around the plant, particularly in spots where radiation levels already exceed 20 millisieverts per year--the minimum level at which evacuees are allowed to return home.

Environment Minister Goshi Hosono indicated that some areas will not be decontaminated in the initial phases of the enormous project.

"We have to prepare for the option of not all residents necessarily returning," he said after the April 22 meeting.

The charts show that seven municipalities, including Minami-Soma and Iitate, will have areas with annual radiation levels above 20 millisieverts at the end of March 2017. Six of the municipalities will contain such dangerous areas 10 years later.

Areas with more than 50 millisieverts a year are expected five years later in four municipalities, including Futaba and Okuma, both of which host the Fukushima No. 1 plant. In 10 years, the zone is predicted to shrink to the border area between Futaba and Okuma.

Futaba Mayor Katsutaka Idogawa welcomed the government projections, saying the data will help residents understand the realities of the situation and prevent them from getting their hopes up too high.

But Namie Mayor Tamotsu Baba described the charts as "just cartoons," and he reiterated his request at the meeting for the government to draw up a more specific decontamination plan.

"I am worried what residents will think after seeing the charts," Baba said. "The town cannot make any move without government projections for radiation levels that include the carrying out of decontamination efforts."

The government created three types of evacuation zones this month. It has put priority on decontamination work in "zones being prepared to have the evacuation order lifted," which have annual radiation levels of less than 20 millisieverts.

The government also seeks to wrap up decontamination work by March 2014 in the "no-residence zones," which have annual radiation levels of between 20 and 50 millisieverts. The goal is to cut the radiation by around half in these zones without counting on natural declines, and expand areas to which will people can return home at an early date.

But for the "difficult to return zones," with annual radiation levels above 50 millisieverts, the government has no decontamination plans, meaning that residents from those areas will unlikely be allowed to return home for more than five years.



In nearly all parts of the town of Naraha town, annual radiation levels will drop below 10 millisieverts in two years, according to the projections. But town officials say other problems need to be worked out.

"We want to return as early as possible, but the compensation issue has yet to be cleared," Mayor Takashi Kusano said. "We still have distrust in the government."

The central government intends to conduct a survey on whether evacuees want to return to their hometowns after presenting a detailed compensation plan. It is also considering devising support measures and creating "temporary towns," which municipalities near the plant can use in the long term.

Okuma town, where 90 percent of the homes lie within the "difficult to return zones," is studying the installment of a temporary town in another municipality.

"Natural declines (in radiation) can be somewhat predicted," Okuma Mayor Toshitsuna Watanabe said. "It is important to determine what decontamination method should be taken to make the areas more habitable."

"We will decide on a program for a return of the evacuees and restoration of the areas based on results from future decontamination tests," the mayor said.

Katsuya Endo, mayor of Tomioka, said the

government also needs to show the effectiveness of such decontamination work.

"If the government presents residents with data showing that decontamination will certainly reduce radiation, it will have a positive effect on their sense of crisis," Endo said.

But the Environment Ministry is facing difficulties drawing up projections that include the effects of decontamination.

"Making such projections is not easy," a ministry official said. "That's because how much the levels drop after decontamination depends on the distance from forests, land features and usage."

The ministry is forming decontamination plans with local governments in line with a roadmap made public in January.

But it has put off its decontamination program in areas exceeding 50 millisieverts, saying, "It's difficult to reduce radiation levels through decontamination work."

In its guidelines for clearing methods, the ministry has issued instructions to remove soil and use high-pressure hoses to wash roads and buildings.

However, the ministry also said the effects could be limited by simply repeating the same methods.



It says it will carefully review the decontamination efforts from March 2014.

radiation levels in some parts of Fukushima Prefecture are still expected to be dangerous at above 50 millisieverts a year, a government report says.

Municipalities, which could remain off-limits for a decade, could demand more thorough decontamination measures than those in the roadmap. Stricter efforts could include reconstructing buildings and cutting down trees, which would add to the huge costs and may lead to problems concerning flood prevention and groundwater.

The report, which contains projections through March 2032, was presented by trade minister Yukio Edano Sunday to leaders of Futaba, one of the towns that host the crippled Fukushima No. 1 power plant.

"If decontamination effects are included in the charts, it could give people overly high expectations," said a ministry official in charge of decontamination. "(The ministry) hopes people understand the limits of the projections and to use the charts as a starting point for evacuees to think of the future, which includes whether to return home."

The report includes radiation forecasts for 2012 to 2014, and for 2017, 2022 and 2032, based on the results of monitoring in November last year. It was compiled to help municipalities draw up recovery and repopulation programs for the nuclear disaster.

The forecasts do not take into account experimental decontamination efforts.

Fukushima air to stay radioactive in 2022

Earlier this month, the government designated areas where annual radiation dosage exceeds 50 millisieverts as those likely to remain off-limits to evacuees in the near term.

Jiji

The report said that annual radiation levels in March 2022 will probably exceed 50 millisieverts in some of the areas, including Futaba and Okuma, the other town that hosts the radiation-leaking plant.

April 24, 2012

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In another meeting between the central and local governments, Reconstruction Minister Tatsuo Hirano presented a draft policy for reviving Fukushima that is based on a special reconstruction law that took force in March.

FUKUSHIMA — A decade from now, airborne





include:

The draft said the central government will provide fiscal support to improve living conditions and revive the regional economy and communities.

Shaun Burnie, Matsumura Akio and Murata Mitsuhei, The Highest Risk: Problems of Radiation at Reactor Unit 4, Fukushima Daiichi

The government plans to give Cabinet approval to the policy as early as May.

Peter Hayes, Global Perspectives on Nuclear Safety and Security After 3-11

Asia-Pacific Journal articles on related subjects

Miguel Quintana, Radiation Decontamination in Fukushima: a critical perspective from the ground