

Japan's cleanup lags from tsunami, nuke accident

March 10 2013, by Elaine Kurtenbach



In this Wednesday, March 6, 2013 photo, workers haul a bag of radiation-contaminated leaves during a cleanup operation in the abandoned town of Naraha, just outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat. (AP Photo/Greg Baker)

(AP)—Two years after the triple calamities of earthquake, tsunami and

nuclear disaster ravaged Japan's northeastern Pacific coast, debris containing asbestos, lead, PCBs—and perhaps most worrying—radioactive waste due to the crippled Fukushima Dai-Ichi nuclear plant looms as a threat for the region.

So far, disposal of debris from the disasters is turning out to have been anything but clean. Workers often lacking property oversight, training or proper equipment have dumped [contaminated waste](#) with scant regard for regulations or safety, as organized crime has infiltrated the cleanup process.

Researchers are only beginning to analyze environmental samples for potential [health implications](#) from the various toxins swirled in the [petri dish](#) of the [disaster zone](#)—including [dioxins](#), benzene, cadmium and [organic waste](#)-related, said Shoji F. Nakayama of the government-affiliated National Institute for Environmental Studies.

Apart from some inflammatory reactions to some substances in the dust and debris, the longer-term health risks remain unclear, he said.

The mountains of rubble and piles of smashed cars and scooters scattered along the coast only hint at the scale of the debris removed so far from coastlines and [river valleys](#) stripped bare by the tsunami. To clear, sort and process the rubble—and a vastly larger amount of radiation-[contaminated soil](#) and other debris near the [nuclear plant](#) in [Fukushima](#), the government is relying on big construction companies whose multi-layer subcontracting systems are infiltrated by [criminal gangs](#), or yakuza.

In January, police arrested a senior member of Japan's second-largest yakuza group, Sumiyoshi Kai, on suspicion of illegally dispatching three [contract workers](#) to Date, a city in Fukushima struggling with relatively high [radioactive contamination](#), through another construction company

and pocketing one-third of their pay.

He told interrogators he came up with the plot to "make money out of clean-up projects" because the daily pay for such government projects, at 15,000-17,000 yen (\$160-\$180), was far higher than for other construction jobs, said police spokesman Hiraku Hasumi.

Gangsters have long been involved in industrial waste handling, and police say they suspect gangsters are systematically targeting reconstruction projects, swindling money from low-interest lending schemes for disaster-hit residents and illegally mobilizing construction and clean-up workers.

Meanwhile, workers complain of docked pay, unpaid hazard allowances—which should be 10,000 yen, or \$110, a day—and of inadequate safety equipment and training for handling the hazardous waste they are clearing from towns, shores and forests after meltdowns of three nuclear plant reactor cores at Fukushima Dai-Ichi released radiation into the surrounding air, soil and ocean.

"We are only part of a widespread problem," said a 56-year-old cleanup worker, who asked to be identified only by his last name, Nakamura, out of fear of retaliation. "Everyone, from bureaucrats to construction giants to tattooed gangsters, is trying to prey on decontamination projects. And the government is looking the other way."

During a recent visit to Naraha, a deserted town of 8,000 that is now a weedy no-man's land within the 20-kilometer (12-mile) restricted zone around the crippled nuclear plant, workers wearing regular work clothes and surgical masks were scraping away topsoil, chopping tree branches and washing down roofs.



In this Tuesday, March 5, 2013 photo, bags of radiation-contaminated leaves and soil sit in a stand of trees in the abandoned town of Naraha, just outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat as clean-up projects face troubles with organized crime and mishandling. (AP Photo/Greg Baker)

"They told me only how to cut grass, but nothing about radiation," said Munenori Kagaya, 59, who worked in the nearby town of Tomioka, which is off-limits due to high radiation.

Naraha's mayor, Yukiei Matsumoto, said that early on, he and other local officials were worried over improper handling of the 1.5 trillion yen (\$16 billion) cleanup, but refrained from raising the issue, until public allegations of dozens of instances of mishandling of radioactive waste prompted an investigation by the Environment Ministry, which is

handling decontamination of the 11 worst-affected towns and villages.

"I want them to remind them again what the cleanup is for," Matsumoto said in an interview. "Its purpose is to improve the environment so that people can safely return to live here. It's not just to meet a deadline and get it over with."

The ministry said it found only five questionable cases, though it acknowledged a need for better oversight. Another probe, by the Health, Labor and Welfare Ministry found rampant labor violations—inadequate education and protection from radiation exposure, a lack of medical checks and unpaid salaries and hazard pay—at nearly half the cleanup operations in Fukushima.

About half of the 242 contractors involved were reprimanded for violations, the ministry said.



In this Monday, March 4, 2013 photo, a sign warns people to stay out of an area where piles of radiation-contaminated soil sit on the sports field of a school in the abandoned town of Yamakiya, outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat as clean-up projects face troubles with organized crime and mishandling. (AP Photo/Greg Baker)

An Environment Ministry official in charge of decontamination said the government has little choice but to rely on big contractors, and to give them enough leeway to get the work done.

"We have to admit that only the major construction companies have the technology and manpower to do such large-scale government projects," said the official, who spoke on condition of anonymity, citing the sensitivity of the issue. "If cleanup projects are overseen too strictly, it will most likely cause further delays and labor shortages."

Minoru Hara, deputy manager at a temporary waste storage site in Naraha, defended the 3,000 workers doing the work—the only people allowed to stay in the town.

"Most of the cleanup workers are working sincerely and hard," Hara said. "They are doing a good job of washing down houses and cleaning up gardens. Such criticism is really unfair, and bad for morale."



In this Tuesday, March 5, 2013 photo, swans swim in a river near bags of radiation-contaminated leaves and soil in the abandoned town of Naraha, just outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat as clean-up projects face troubles with organized crime and mishandling. (AP Photo/Greg Baker)

Labor shortages, lax oversight and massive amounts of funds budgeted for the clean-up are a recipe for cheating. And plenty of money is at stake: the cleanup of a 20-kilometer (12-mile) segment of an expressway whose worst contamination exceeds allowable radiation limits by 10 times will cost 2.1 billion yen (\$22.5 billion), said Yoshinari Yoshida, an Environment Ministry official.

"While decontamination is a must, the government is bearing the burden. We have to consider the cost factor," said deputy Environment Minister

Shinji Inoue as he watched workers pressure wash the road's surface, a process Yoshida said was expected to reduce contamination by half.



In this Sunday, March 3, 2013 photo, a solar-powered radiation meter indicates radiation levels beside the sports ground of a school in the abandoned town of Iitate, outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat as clean-up projects face troubles with organized crime and mishandling. (AP Photo/Greg Baker)

The cleanup is bound to overrun its budget by several times, as delays deepen due to a lack of long-term storage options as opposition among local residents in many areas hardens. It will leave Fukushima, whose huge farm and fisheries industry has been walloped by radiation fears, with 31 million tons of nuclear waste or more. Around Naraha, huge

temporary dumps of radioactive waste, many football fields in size and stacked two huge bags deep, are scattered around the disaster zone

The cleanups extend beyond Fukushima, to Iwate in the north and Chiba, which neighbors Tokyo, in the south. And the concerns are not limited to radiation. A walk through areas in Miyagi and Iwate that already were cleared of debris finds plenty of toxic detritus, such as batteries from cell phones, electrical wiring, plastic piping and gas canisters.



In this Tuesday, March 5, 2013 photo, workers position bags of radioactive waste at a temporary waste storage site in Naraha, just outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat. (AP Photo/Greg Baker)

Japan has the technology to safely burn up most toxins at very high temperatures, with minimal emissions of PCBs, mercury and other poisons. But mounds of wood chips in a seaside processing area near Kesennuma were emitting smoke into the air one recent winter afternoon, possibly from spontaneous combustion.

Workers at that site had high-grade gas masks, an improvement from the early days, when many working in the disaster zone had only surgical masks, at most, to protect them from contaminated dust and smoke.



In this Tuesday, March 5, 2013 photo, bags of radiation-contaminated waste sit in fields in Naraha, just outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Decontamination efforts have begun in the town but resident have not been allowed to return for more than brief visits. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat as clean-up projects face troubles with organized crime and mishandling. (AP Photo/Greg Baker)

Overall, how well the debris and contaminants are being handled depends largely on the location.

Sendai, the biggest city in the region, sorted debris as it was collected and sealed the surfaces of areas used to store debris for processing to protect the groundwater, thanks to technical advice from its sister-city Kyoto, home to many experts who advised the government in its cleanup of the 1995 earthquake in the Kobe-Osaka area that killed more than 6,400 people.



In this Sunday, March 3, 2013 photo, piles of radiation contaminated waste sit in a field in the abandoned town of Iitate, outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat as clean-up projects face troubles with organized crime and mishandling.

(AP Photo/Greg Baker)

But Ishinomaki, a city of more than 160,000, collected its debris first and is only gradually sorting and processing it, said the U.S.-educated Nakayama, who worked for the U.S. Environmental Protection Agency before returning to Japan.

"There were no technical experts there for the waste management side," he said. "They did some good work with chemical monitoring but in total, risk assessment, risk management, unfortunately they did not have that expertise."

Ultimately, just as they are choosing to live with contamination from chemicals and other toxins, the authorities may have to reconsider their determination to completely clean up the radiation, given the effort's cost and limited effectiveness, experts say.

Regarding the nuclear accident, "there has been so much emphasis on decontamination that no other options were considered," said Hiroshi Suzuki, a professor emeritus at Tohoku University in Sendai and chairman of the Fukushima Prefectural Reconstruction Committee.



In this Monday, March 4, 2013 photo, piles of radiation-contaminated waste sit in a field in the abandoned town of Namie, outside the exclusion zone surrounding the Fukushima Dai-ichi nuclear plant in Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat as clean-up projects face troubles with organized crime and mishandling. (AP Photo/Greg Baker)

Some places, such as playgrounds, obviously must be cleaned up. But others, such as forests, should just be left alone, since gathering or burning radioactive materials concentrates them—the opposite of what is needed since the more diluted they are, the better.

To a certain extent, policy is being dictated by politics, said Suzuki.

Before the accident, residents believed they were completely safe, he said. "The authorities want to be able to tell them once again that the

area is safe. To do this they need to return it to the state that it was in before the accident."

Naraha resident Yoshimasa Murakami, a 79-year-old farmer, said he has low expectations.



In this Monday, March 4, 2013 photo, piles of radiation-contaminated waste sit in a field outside Fukushima city, in northeast Japan. Two years after the triple calamities of earthquake, tsunami and nuclear disaster ravaged Japan's northeastern Pacific coast, radioactive and chemical contamination remains a threat as clean-up projects face troubles with organized crime and mishandling. (AP Photo/Greg Baker)

A month after the government started cleaning his spacious home he has not seen a major decrease in radiation, he said while sitting on a balcony overlooking his traditional Japanese garden.

He set a dosimeter on the grass. It measured radiation nearly five times the target level and almost the same as the 1.09 microsieverts per hour found when officials surveyed it in December.

Murakami had come to the house for the day. He, his wife and daughter now live 50 kilometers (30 miles) away in Koriyama city.

He visits a few times a week to keep an eye on the cleanup workers. At nearly 80, Murakami says he doesn't mind about the radiation, but his wife does. And if he returns, his other relatives and grandchildren will be afraid to visit.

"Then, what's the point?" he said.

"I don't think decontamination is going to work," Murakami said. "The nuclear crisis is not fully over, and you never know, something still can go wrong."

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