

# Three Years On: Lives in Limbo

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**In March 2011, Kaori Saito watched the Fukushima Daiichi nuclear disaster unfold on TV from her living room in Fukushima City, roughly 60 kilometres away. When the government instructed her to keep her two young children indoors to avoid radiation, she asked her husband if they could move away. He said no and refused to discuss it further.**

Mrs. Saito argued with her children when they wanted to play outside, and washed their clothes constantly. The constant worry inflicted a psychological toll, and in August 2011 she moved away, divorcing her husband a year later. Today she lives with her children in a government-subsidised apartment in the mountains of Nagano, almost 400km southwest of Fukushima City. “I felt I had no choice if I was going to protect them,” she says. “It’s been very hard,” she admits. “All our relatives are in Fukushima. The children get to see their grandparents twice a year, if they’re lucky.”

*Genpatsu rikon* (nuclear divorce) is one of the less-documented problems to have emerged since the triple meltdown at the Daiichi plant. Nobody knows how many couples have been pulled apart by the disaster, but anecdotes suggest dozens, perhaps hundreds of families permanently separated. In most cases, mothers have moved away from Fukushima Prefecture, leaving behind husbands who are tethered to work or simply don’t believe the radiation is harmful.

Government estimates say that 270,000 people from the Tohoku (northeast) region remain scattered throughout Japan since the tsunami/earthquake/nuclear disaster began.<sup>1</sup> Of these, 146,520 were forced to abandon their homes in or near the government’s mandatory 20km evacuation zone.<sup>2</sup> Tens of thousands more have fled voluntarily.<sup>3</sup> About a third of the refugees are in their sixties or older.<sup>4</sup>

About 100,000 of the refugees live in temporary accommodation.<sup>5</sup> For many, this means hastily built, two-roomed homes closely packed into available land in towns and cities around Fukushima Prefecture. Many of the homes are starting to decay.<sup>6</sup> Thousands more share houses with relatives.

For Yuki Segawa and her three young children life now is a government-built apartment in the northern suburbs of Tokyo, a three-hour drive from her home in Koriyama, Fukushima Prefecture. She has held her family together – barely: Her husband Yoshinobu drives from Koriyama to be with the family on weekends. Like many refugees, she says the hardest part of life away from home is being separated from the network of family and friends that once cushioned life.

In November 2013, a top government official acknowledged what evacuees have known since 2011: Many will never return home. Shigeru Ishiba, secretary general of the ruling Liberal Democrats (LDP) said the “time will come” when the government will have to reverse its policy of allowing everyone back.<sup>7</sup>

For now, however, families like the Segawas live in limbo. The most contaminated areas, with annual radiation doses of at least 50 millisieverts (home to about 25,000 people) are still designated “difficult-to-return-to areas”, a government-coined euphemism for permanent homelessness.<sup>8</sup>

Critics say the government is reluctant to admit that the clean-up of Fukushima will take decades, or that many parts will remain unlivable, because it would complicate plans to restart Japan’s 48 idling commercial reactors. Without that admission, thousands of refugees cannot claim compensation for homes and other lost assets, meaning they cannot move on with their lives. Unless the state officially declares the most contaminated areas around the Daiichi plant permanently uninhabitable, refugees are still expected to return home. According to many polls, most have abandoned hope of picking up their old lives and want enough money to set up new ones.<sup>9</sup>

Not surprisingly, some of the people who fled these areas have despaired. Local officials cite high rates of depression, premature death and – in the worst cases – suicide among refugees. In December 2013, Japan's Mainichi newspaper reported a tragic milestone: In Fukushima Prefecture, one of the three prefectures more affected by the triple disaster, the number of indirect deaths from the evacuation surpassed those directly caused by the tsunami and earthquake in Fukushima: 1,605 people.<sup>10</sup>

This number is likely an underestimate. Shigekiyo Kanno, for example, is not among the recorded victims. In June 2011, Kanno (54) hung himself in a compost shed that he had borrowed five million yen to build. "If only there were no nuclear disasters..." he wrote in a suicide note to his family. His dairy business was ruined by the Fukushima disaster, but because he lived in Soma – outside the 20km exclusion zone – he was not entitled to a penny in compensation.<sup>11</sup> His widow is suing Tokyo Electric Power Co. (TEPCO), operator of the ruined Daiichi complex.

In some parts of Fukushima's 20km evacuation zone, the government has partially lifted the evacuation order, allowing refugees to spend the daylight hours in their homes. But, as the sun falls, security guards in parts of Minamisoma, Namie and other towns and villages order people to leave.

A survey by Namie town office in 2013 found that 37.5% of residents had given up on reclaiming their old lives, and the same percent remained "unsure."<sup>12</sup> Only about 19% were confident they would return, but even that figure is viewed with scepticism. "Why would people come back here permanently to live?" asks Masami Yoshizawa, a farmer who refused to leave his cattle herd in Namie. "There is no infrastructure any more; no schools, shops or transport."

For a few days during March 2011, after a string of explosions at the Daiichi nuclear plant, rain and snow laced with radiation fell across Namie and much of Fukushima, contaminating thousands of acres of rich farming land and forests. 146,520 people nearest the plant were ordered or urged to evacuate. Today, thousands of homes are still blanketed in an invisible poison only detectable with beeping Geiger counters.

Japan's central government refined its policy in December 2011, defining evacuation zones as "areas where cumulative dose levels might reach 20 millisieverts per year". This is 20 times higher than the limit recommended by the International Commission on Radiological Protection for non-accidental situations.

Local governments are spending millions of dollars to persuade refugees to come back, dividing the nuclear clean-up with the central government, which handles the most toxic areas. One estimated price tag for decontaminating a heavily mountainous and wooded area roughly half the size of Rhode Island (2000 sq km) is \$50bn US dollars.<sup>13</sup> That figure is widely considered an underestimate. Many experts say, in any case, decontamination won't work. The hills, mountains and forests of Fukushima are particularly contaminated. Radiation washes down from these hills into detoxified land, polluting it all over again.

Fighting radiation is now one of the few growth industries in Minamisoma, about 20km north of the Daiichi plant. Most of the city's 71,000 people fled in March and April 2011. About a third have yet to return. Decontamination employs about 1,000 people – a large chunk of the town's remaining able-bodied workforce. The city has budgeted \$230m for this fiscal year alone to clean local homes and businesses of toxins.<sup>14</sup>

Radiation levels in most areas of Fukushima have dropped by around 40% since the disaster began, according to central government estimates, but these figures are widely disbelieved. The understandable confusion and distrust of the authorities complicate already difficult decisions for parents like Kaori Saito, who must decide where their children will be safe. "They remove the ground under the posts, pour some clean sand, lay down concrete, plus a metal plate and put the monitoring post on top," says Nobuyoshi Ito, a farmer who opted to stay behind in the heavily contaminated village of Iitate and record the impact of radiation on crops, animal life and himself. "The device ends up 1.5 meters from the ground." Because radiation has settled on surfaces, the higher off the ground the posts are, the lower the level of radiation they record.

Ito says the local municipality checks radiation in about 40 places, separately to government monitoring posts, collecting figures that are on average 20% higher. The readings were published in national newspapers. "Of course this has a huge impact on data, radiation dose calculations and so on," he says. "I asked the mayor: 'Why don't you protest to the central government?' But the municipality isn't doing anything to fix this situation."

The disagreement over real radiation levels is far from academic. Local municipalities are desperate for evacuees to return, and must decide on what basis – in terms of exposure to radiation – evacuation orders will be lifted. If officials unilaterally declare their areas safe, evacuees could be forced to choose between returning home and losing vital monthly compensation from TEPCO.

For the refugees, a worrying precedent has already been set in the municipality of Date, which lies outside the most contaminated areas. In December 2012, the local government lifted a "special evacuation" order imposed on 129

households because of a hotspot, arguing that radiation doses had fallen below 20 millisieverts a year. Three months later the residents lost the \$1,000 a month they were receiving from TEPCO for “psychological stress” – whether they returned or not.

The differences over what constitutes “acceptable” radiation levels will inevitably complicate policy over the return of evacuees. Local leaders sometimes set limits lower than central government requirements. “The government says we don’t need to get radiation down to 1 millisievert a year, but that’s not how we see it,” says Sakurai Katsunobu, mayor of Minamisoma. The central government, however, is sticking to its guns on its original limit of 20 mSv/yr.

The Fukushima clean-up, however, faces another perhaps insurmountable challenge: Securing sites to store contaminated soil, leaves and sludge. Many landowners balk at hosting “interim” dumps – in principle for three years – until the central government builds a mid-term storage facility. Local governments throughout Japan have refused to accept the toxic waste, meaning it will probably stay in Fukushima for good. The waste is stored under blue tarpaulins and in black bags across much of the prefecture, sometimes close to schools and homes, awaiting final disposal at an as yet unknown and uncertain location.

Kunihiro Makita, who heads Minamisoma’s decontamination office, accepts that storage is the biggest difficulty it faces. “We need 19 sites according to our estimates, and we have seven,” he said in December 2013.<sup>15</sup> The city’s contracts with landowners are usually signed for a minimum of three years, but Ito says the timeframe is simply not believable. “Nobody believes that temporary storage will be for only three years.”

Many refugees are watching the flawed, hugely expensive decontamination project play out, and wonder why the government and TEPCO cannot find the money to help them move on with their lives. These concerns have deepened since Tokyo won the right to host the 2020 Olympics, after the government pledged \$470m<sup>16</sup> to plug the Daiichi plant’s radioactive leaks. “Why is it so easy to find money when the world is watching?” wonders Katsuzo Shoji, a farmer evacuated from Iitate in 2011.

Tokyo has promised to build 22 of the 37 Olympic venues from scratch, and spend \$1bn refurbishing the national Olympic stadium, the centrepiece of Japan’s 1964 Olympics.<sup>17</sup> The total estimated price tag for the world’s most expensive sporting extravaganza is ¥409bn yen (\$4.1bn).<sup>18</sup> Refugees have told the Japanese media that, unlike the rest of Japan, many feel alienated from the Olympic celebrations. Many feel that the money used to pay for all those stadiums could be better put to use rebuilding the northeast – and paying decent compensation.<sup>19</sup>

Parents who have remained in Fukushima face a lifetime of worries about their children’s health. In May 2013, the UN said it did not expect to see elevated rates of cancer from Fukushima, though it recommended continued monitoring. The report by the UN Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) said prompt evacuation meant the dose inhaled by most people was low.<sup>20</sup> That assessment was at odds with a report by the World Health Organisation in February 2013, which warned of an elevated cancer risk.<sup>21</sup> Refugees from Iitate, Namie and other areas said evacuation in some cases took over a month. Other medical experts have criticised UNSCEAR’s preliminary report on radiation effects (the final report is due for publication in early 2014). They see a similar trend of avoiding impacts as in the case of Chernobyl. Epidemiologist Professor Hoffmann even said: “It is certain there will be an elevated level of cancer.”<sup>22</sup>

The government of Fukushima Prefecture has promised lifelong health checks for 360,000 people under 18 at the time of the disaster.<sup>23</sup> In February 2013,<sup>24</sup> the government said it had found just three cases of thyroid cancer after checking 38,000 people, a figure Suzuki Shinichi, Professor of thyroid surgery at Fukushima Medical University, said was statistically insignificant. “It is too early to link the cases to the nuclear disaster,” he said,<sup>25</sup> to widespread scorn from parents.

By February this year, however, the number of confirmed or suspected cases had grown to 75.<sup>26</sup> As I write, scientists continue to argue about the significance of this figure, and will for years to come. Kanako Nishitaka, a single mother of two, says many parents have no faith in government surveys. Born and raised in Fukushima city, she moved away after doctors found caesium in her daughter’s body. “I was told it was about the same amount as people exposed to nuclear bomb tests,” she recalls. “The scientists who do these surveys tell us to move back home, but I wonder if they would take their own children to Fukushima?”

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- 1** Figures from Japan's Reconstruction Agency. January 28, 2014.  
[http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-1/20140128\\_hinansha.pdf](http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-1/20140128_hinansha.pdf) (Accessed February 1, 2014)
- 2** Figures from the Japan Atomic Energy Commission.  
<http://www.aec.go.jp/jicst/NC/tyoki/sakutei/siryu/sakutei6/siryu5-2.pdf> (Accessed February 2, 2014)
- 3** Figures from the Ministry of Education, Culture, Sports, Science and Technology.  
[http://www.mext.go.jp/b\\_menu/shingi/chousa/kaihatu/016/shiryu/\\_\\_\\_icsFiles/afiedfile/2011/11/11/1313180\\_2\\_2.pdf](http://www.mext.go.jp/b_menu/shingi/chousa/kaihatu/016/shiryu/___icsFiles/afiedfile/2011/11/11/1313180_2_2.pdf) (Accessed January 31, 2014)
- 4** Japan Reconstruction Agency. 2014. Telephone conversation with the author, January 27, 2014.
- 5** Figure from Japan Reconstruction Agency, February 3, 2014.
- 6** See: "Fukushima evacuees' Housing Units Crumbling." The Japan Times, November 17, 2013.  
<http://www.japantimes.co.jp/news/2013/11/17/national/fukushima-evacuees-housing-units-crumbling/> (Accessed February 13, 2014)
- 7** See: "Japan ruling party questions plan to let Fukushima evacuees go home." Reuters, November 3, 2013.  
<http://www.reuters.com/article/2013/11/03/us-japan-nuclear-ldp-idUSBRE9A201U20131103> (Accessed January 29, 2014).
- 8** The limit recommended by the International Commission on Radiological Protection is 1 mSv/yr. The general worldwide limit for nuclear workers is 20 mSv/yr.
- 9** See: "70% of Fukushima Evacuees Won't Return Home." NHK, December 6, 2013.  
<http://recoveringtohoku.wordpress.com/2013/12/06/70-of-fukushima-evacuees-wont-return-home-nhk-12613/> (Accessed January 29, 2014)
- 10** See: "Fukushima nuclear evacuation-related deaths surpass prefecture's quake, tsunami toll." Mainichi, December 17, 2013.  
<http://mainichi.jp/english/english/newsselect/news/20131217p2a00m0na010000c.html> (Accessed February 3, 2014)
- 11** Refugees forcibly evacuated from the 20km exclusion zone, and several thousand more around Iitate Village and other heavily contaminated areas, are entitled to monthly compensation from TEPCO for "psychological distress" (roughly ¥100,000 a month) plus compensation for lost income and eventually for assets and the loss of their old lives. Farmers like Kanno, whose business was destroyed by rumour, are not recognised by TEPCO. There are other victims who are affected but don't fall into any of the classified zones, and therefore receive no compensation.
- 12** Namie town office. October 4, 2013. Survey.  
[http://www.town.namie.fukushima.jp/uploaded/life/5229\\_11523\\_misc.pdf](http://www.town.namie.fukushima.jp/uploaded/life/5229_11523_misc.pdf) (Last accessed February 13, 2014)
- 13** The estimate was made by National Institute of Advanced Industrial Science and Technology, which said the total cost of decontaminating the evacuation zone will be about \$20bn, with another \$30bn for areas further away. See: McNeill D, "With Fukushima nuclear plant still leaking, Japan clean-up bill soars to \$50bn." The Independent, July 24, 2013.  
<http://www.independent.co.uk/news/world/asia/with-fukushima-nuclear-plant-still-leaking-japan-cleanup-bill-soars-to-50bn-8730832.html> (Accessed February 13, 2014).
- 14** Research trip and interviews with Minamisoma officials, November 14-15, 2013.
- 15** Personal interview.
- 16** See "Once More With Feeling." The Economist, September 8, 2013.  
<http://www.economist.com/blogs/banyan/2013/09/tokyos-2020-olympics> (Accessed February 2, 2014)
- 17** Ibid.
- 18** Ibid.

- 19** See: "Nuclear Refugees Struggle to Share Olympic Joy." The Japan Times, October 19, 2013.  
<http://www.japantimes.co.jp/news/2013/10/19/national/nuclear-refugees-struggle-to-share-olympic-joy/> (Accessed February 3, 2014).
- 20** See: "No big Fukushima health impact seen: UN body chairman." Reuters, January 31, 2014.  
<http://www.reuters.com/article/2012/01/31/us-japan-fukushima-health-idUSTRE80U1AS20120131> (Accessed February 3, 2014)
- 21** World Health Organisation (WHO). 2013. Global Report on Fukushima nuclear accident details health risks. February 28, 2013.  
[http://www.who.int/mediacentre/news/releases/2013/fukushima\\_report\\_20130228/en/](http://www.who.int/mediacentre/news/releases/2013/fukushima_report_20130228/en/) (Accessed February 3, 2014)
- 22** 3sat (2013). Medical experts criticize UNSCEAR report for playing down consequences of Fukushima nuclear accident. November 5, 2013. Video available here: <http://enenews.com/tv-investigation-details-u-n-cover-up-of-fukushima-medical-doctor-theres-now-many-more-cancer-cases-than-we-expected-from-fukushima-unscear-report-has-falsified-estimations-video>
- 23** See: "Fukushima disaster panel so far reports three young people have thyroid cancer." The Japan Times, February 14, 2013.  
<http://www.japantimes.co.jp/news/2013/02/14/national/fukushima-disaster-panel-so-far-reports-three-young-people-have-thyroid-cancer/> (Accessed February 3, 2014)
- 24** Ibid.
- 25** Ibid.
- 26** See: "Thyroid Cancer Cases Increase Among Young People in Fukushima" The Asahi Shimbun, February 8, 2014.  
<http://ajw.asahi.com/article/0311disaster/fukushima/AJ201402080047> (Accessed February 13, 2014).

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