

"Damage, Living Environment, and Reconstruction under the Great East Japan Earthquake"

The 6th Survey of Nuclear Disaster Evacuees from Futaba, Fukushima, Summary of Results 2020

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1—Basic Information

Surveys on damage, living environment and reconstruction under the Great East Japan Earthquake have been conducted by a research project, "International comparison of reconstruction of living infrastructure from disasters" (Yasuyuki Sawada, Professor, Faculty of Economics, The University of Tokyo; Keiko Iwasaki, Researcher, NLI Research Institute) of the University of Tokyo since 2013. The surveys are targeted to all household heads of Futaba in Fukushima prefecture, where all residents were forced to evacuate due to the nuclear power plant accident caused by the Great East Japan Earthquake occurred in 2011. Surveys were conducted in July 2013, December 2014, July 2016, December 2017, July 2019 and December 2020. This paper reports the summary of results of the sixth survey conducted in December 2020.¹

Table 1. Basic Information

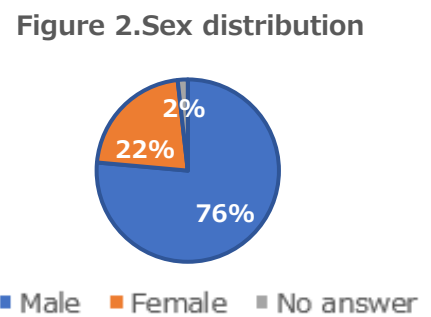
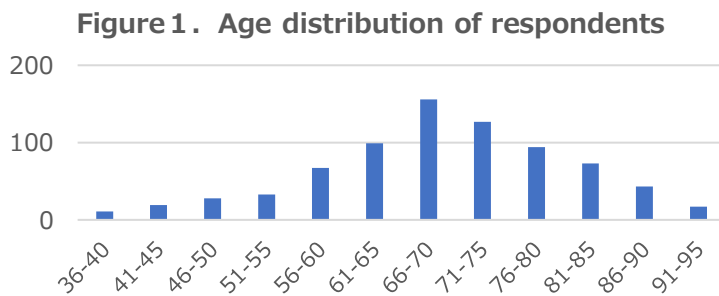
Target	All household heads of Futaba, Fukushima
Number of questionnaires distributed	2,900
Questionnaires distribution date	December 1, 2020
Questionnaires collection period	December 1, 2019 - January 31, 2021
Number of responses	789
Response rate	About 27.2%

The survey include questions about basic attributes such as age and sex, as well as questions related to connections with others (social capital) and health conditions (See appendix at the end of this report for all the questions included in the survey). The questionnaires were distributed to all households of Futaba (About 2,900 households) that receive the regular town mail from Futaba. We also distributed simplified version of the

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questionnaires excluding already available information in previous rounds of surveys to those who had filled out names and addresses in previous surveys. We received responses from 789 Futaba residents who had evacuated nationwide (416 responses from questionnaires included in the town mail, 373 responses from the simplified version of the questionnaires. Response rate is about 27%).

Figures 1 and 2 show the distribution of age and sex of the respondents. As we can see from these figures, compared to the age and sex distribution reported in the national census, the age distribution of the respondents is left-skewed, with the majority of respondents in their late 60s. The sex distribution shows that the majority of respondents are male. In addition, since the survey was conducted after the tremendous disaster, it is possible that the distributions of the respondents' characteristics are significantly different from those of general questionnaire surveys. Therefore, it should be noted that the results of this survey do not necessarily indicate the general trend of Futaba residents.



2—Health conditions

Regarding health condition of the respondents, as shown in Figure 3, many rated their own health condition before the earthquake as "good" or "very good" while many rated their current health status as "bad," "terrible" or "can't say either way". Compared to the 2016 survey result, the portion of respondents who rated their current health status as "good" increased in 2019 survey, while the portion of respondents who rated their current health status as "bad" decreased slightly, indicating that overall health status of Futaba residents have been gradually recovering. On the other hand, as shown in Figure 4, when asked about changes in health condition compared to pre-disaster status, many respondents rated their own health condition as worse than that of pre-disaster status and the distribution has hardly changed since 2013.

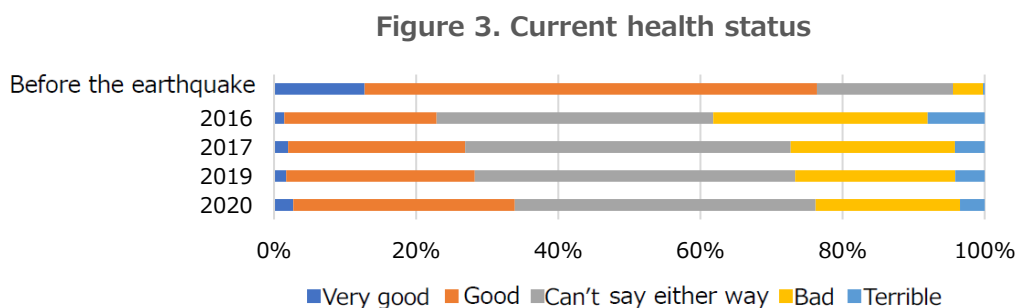
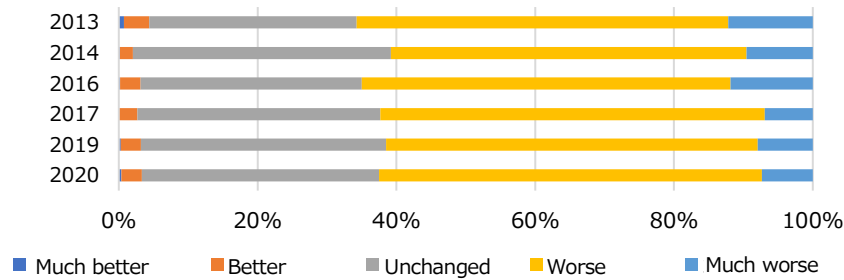
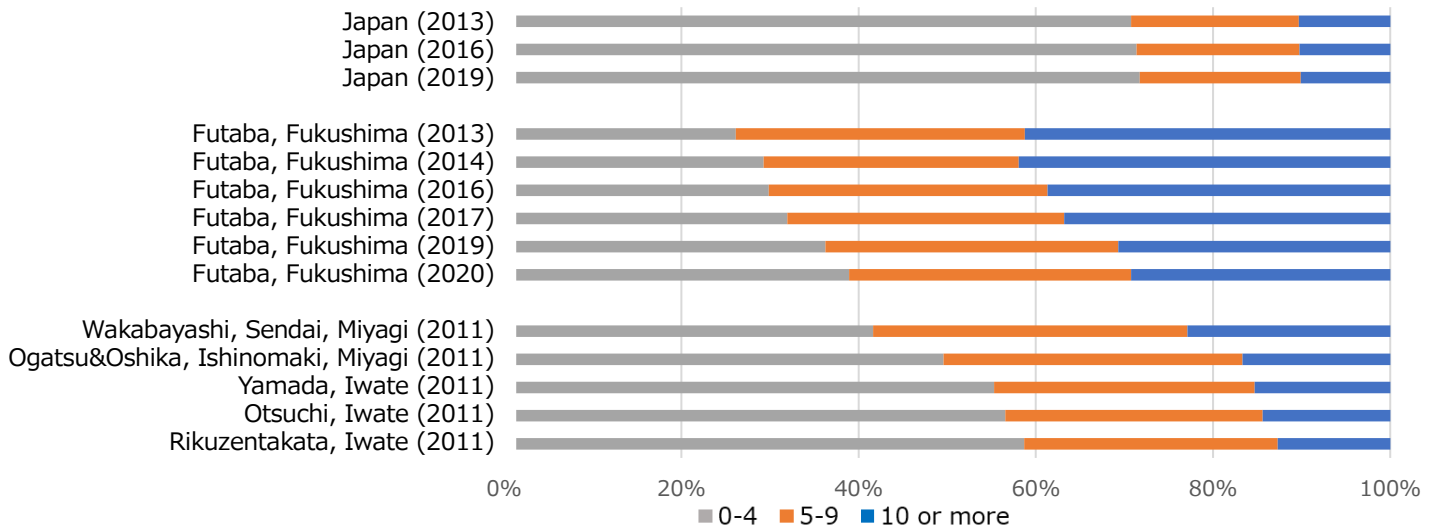


Figure 4. Change in subjective health status



As to mental health, the distribution of K6 score, a clinically validated index for diagnosing the overall stress state, of Futaba residents gradually improved from 2013 to 2020 (See Figure 5). However, the scores are still higher than those in the other disaster affected areas, indicating that mental health recovery of Futaba may take a very long time. (K6 is an internationally used measurement for general mental health status that consists of six questions. The higher the total score, the more likely the respondent is stressed.)

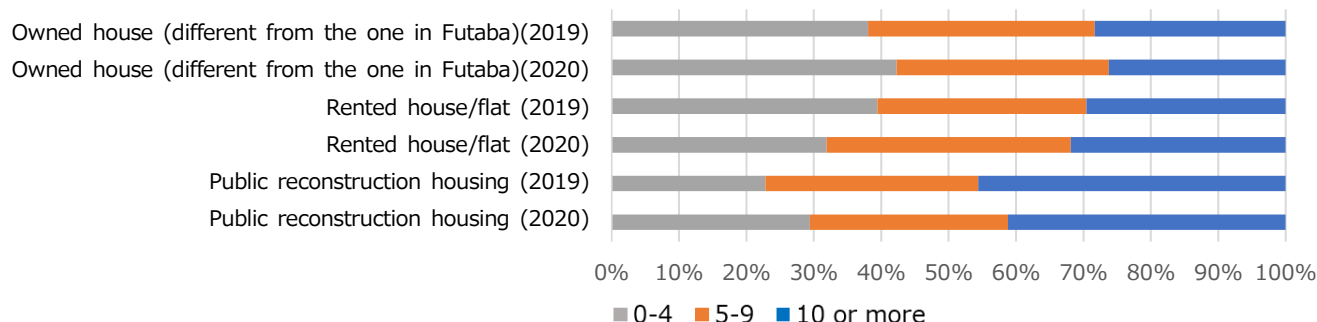
Figure 5. Distribution of K6 score for Japan, Futaba, and other disaster affected areas



Note) K6 score indicates the level of psychological distress, and the higher the value, the higher the level of stress.
 Source) Futaba: Surveys conducted by the University of Tokyo's "International comparison of reconstruction of living infrastructure from disasters" project. Japan: Comprehensive Survey of Living Conditions (2013, 2016). Other regions: Survey on the Health of Great East Japan Earthquake Victims (Research Representative: Kenji Hayashi) 2012

In addition, the previous rounds of surveys between 2013 and 2017 showed that K6 score among Futaba residents living in temporary shelters had been increasing year by year, but only few lived in temporary shelter among respondents of the 2019 and 2020 survey (6 respondents in 2019 and 7 respondents in 2020) since many who used to live in temporary shelters had moved to public reconstruction housings. Therefore, instead of checking the distribution of K6 score among temporary shelter residents, we compare the distribution of K6 score by dwelling type this time. As shown in Figure 6, K6 score among residents of public reconstruction housings tend to be higher than that of residents who live in owned houses. This suggests the importance of continuous mental health support even after leaving from temporary shelters.

Figure 6. Distribution of K6 by dwelling type



Note) This index indicates the degree of psychological stress, and the higher the value, the higher the degree of stress.

Source: Past research by the University of Tokyo's "International comparison of reconstruction of living infrastructure from disasters" project

However, the results of this survey do not necessarily apply to all residents of Futaba, and high K6 score does not necessarily mean that one has a mental disorder. Please note that the purpose of our survey is to provide policy implications.

3—Change in social capital

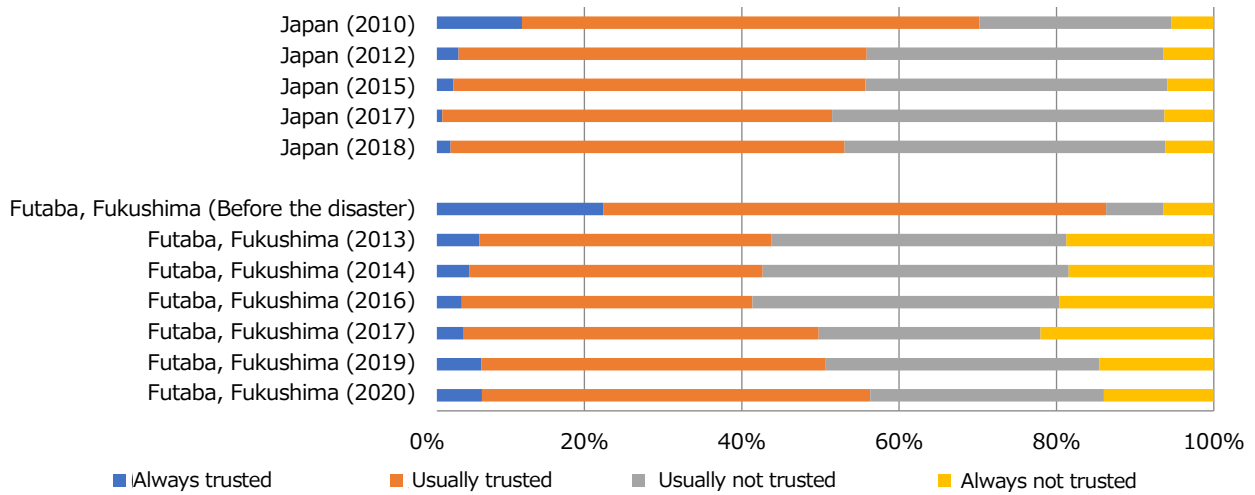
Social capital refers to trusting relationships and networks, and is sometimes referred as "kizuna" in Japanese. Social capital is getting attention as a key notion to achieve successful disaster recovery and has been one of the major focuses of our study. In previous study, we showed social capital would play an important role in maintaining mental health after the disaster, while it might have been weakened by the disaster among Futaba residents.

There are several indicators that are commonly used to measure social capital, but we focus on three items here. First, we check the level of "generalized trust" using GSS trust question, which is one of the most commonly used social capital measures. As shown in Figure 7, generalized trust among Futaba residents had been decreasing from 2013 to 2016 (Portion of those who think people can be trusted had been decreasing). However, since 2017, the portion of those who thinks people can be trusted has been gradually increasing (See Figure 7). The overall distribution is almost same as that of Japan as of 2019. On the other hand, Since Futaba had very high generalized trust level before the disaster, recovery to its original high level would take much longer time.

The second indicator of social capital, "frequency of mutual assistance with neighbors," also shows a gradual recovery trend. In addition, the third indicator of social capital, "trust to neighbors" also shows a gradual recovery trend since 2016, but both trends have been very moderate. It will take a very long time for social capital to recover, and we believe it is important to continue to monitor these changes over the long term.

Figure 7. Generalized Trust (GSS Trust)

"Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people? "



Source) Japan: The Japanese General Social Surveys 2010, 2012, 2015, 2017, 2018; Futaba: Our study conducted by the University of Tokyo's "International comparison of reconstruction of living infrastructure from disasters" project

Figure 8. Frequency of mutual assistance with neighbors

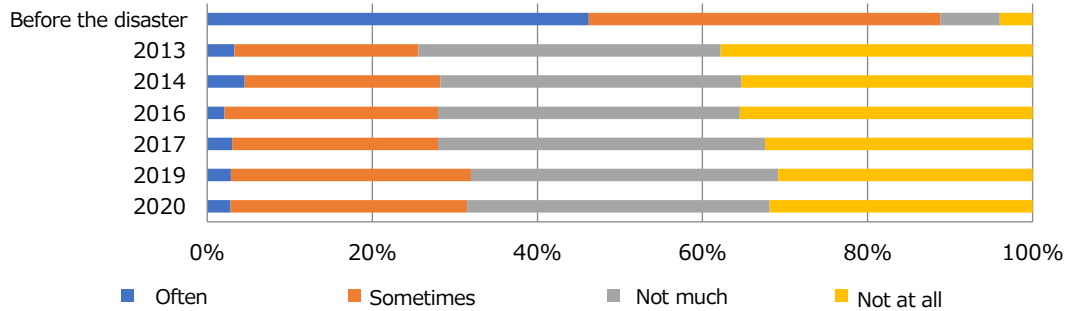
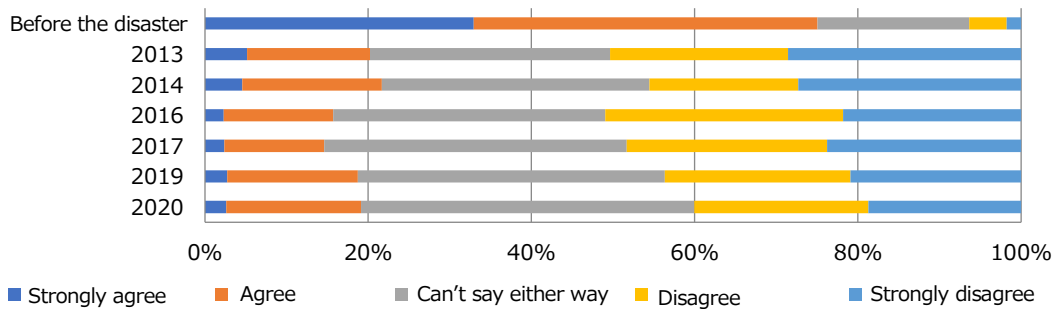


Figure 9. Trust to neighbors

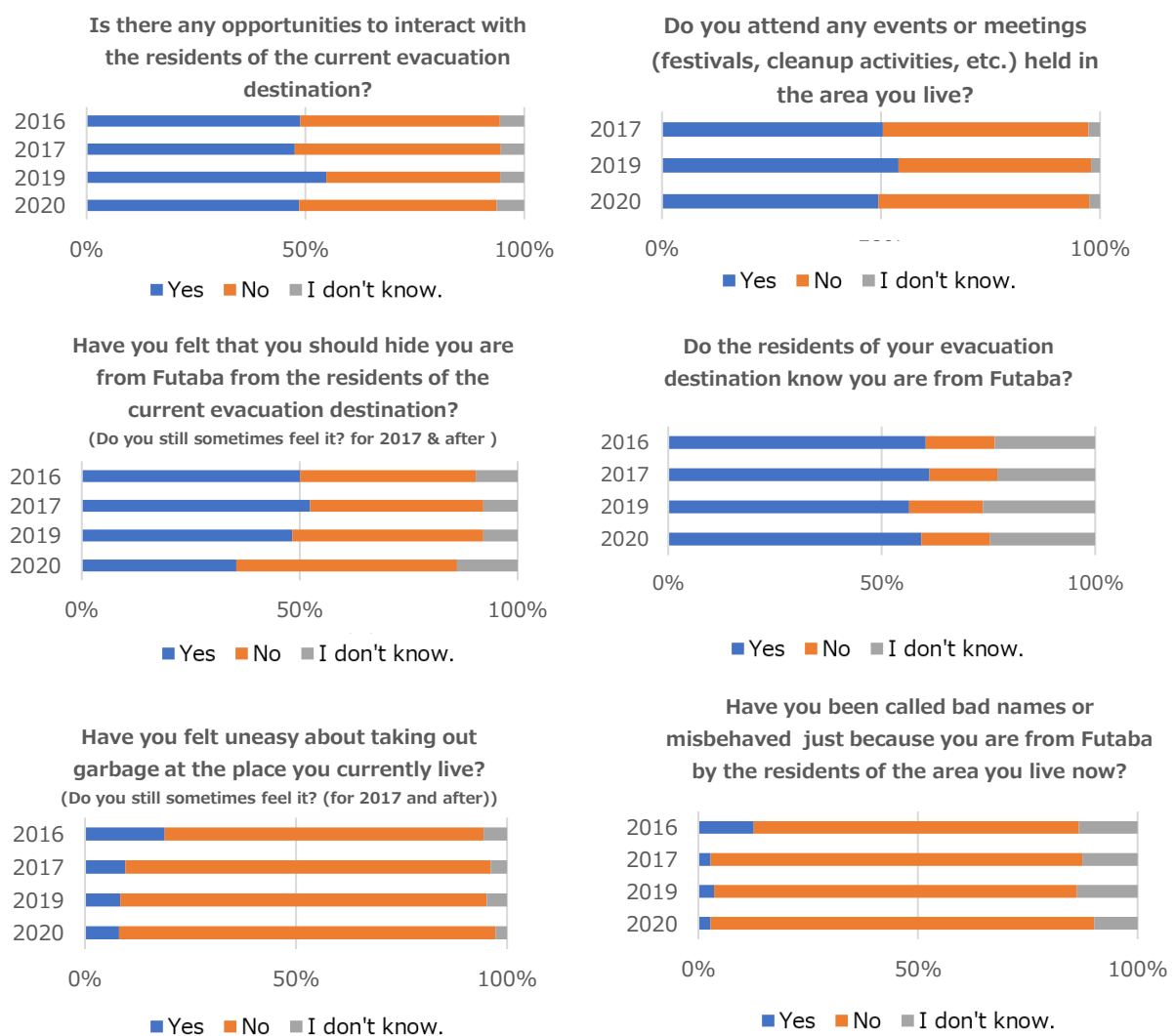
"My neighbors help me when I'm in trouble."



4—Building relationship with residents at evacuation destinations

Some of Futaba residents had told us that building a new social relationship with residents in evacuation destinations is an challenge that needs to be addressed under the prolonged evacuation period, in which the policies and understandings of residents in evacuation destinations vary widely. To capture this challenge, since the 2016 survey, the question on the relationship with the residents of the evacuation destinations have been included. As shown in Figure 10, the percentage of those who feel that it is better to hide that they are from Futaba, those who feel uneasy about taking out garbage, and those who are called bad names or misbehaved because they are from Futaba have been decreasing. On the other hand, the percentage of residents who have opportunities to interact with the residents of the evacuation destinations, those who participate in events held in the evacuation destinations, and those who think it is better to conceal that they are from Futaba have not changed. It shows that about half of the residents will do not have opportunities to interact with residents of the evacuation destinations, indicating that building new relationships with residents at the evacuation destinations is still an important challenge for Futaba residents.

Figure 10. Relationship with residents in evacuation destinations



5— Summary of the findings from the five rounds of surveys

- (1) Futaba residents can be facing more serious psychological distress than those in other disaster affected areas. More than eight years have passed since the Great East Japan Earthquake, and their mental health status have been gradually improving, but recovery may take much longer time.
- (2) In particular, there was a possibility that mental health of those who had lived in temporary shelters for long time was in a serious condition. However, currently, even after many of the residents have already moved from temporary shelters to public reconstruction housings, mental health of residents in public reconstruction housings is in a serious condition, and continuous support is necessary.
- (3) As to changes in income and health condition caused by the disaster, we find that the greater the extent of decrease or deterioration is, the greater the degree of decline in individual well-being tends to be. This implies the necessity of sufficient compensation to recover the original state of survivors' well-being.
- (4) The disaster has weakened social capital of Futaba residents, and recovery may take very long time.
- (5) Keeping in touch with people who had been friends from pre-disaster time and participating in hobbies and volunteer activities after the disaster may help people maintain good mental health.
- (6) Though relationship building with the residents of the evacuation destinations show some progress little by little, the progress is subtle and it is still an important challenge evacuees are facing.
- (7) Aggravated present bias (procrastination tendency) due to disasters can lead a decline in mental health condition, but policies that promote interaction among residents and encourage good health behaviors can prevent such a decline.

These results have been presented in international and domestic academic conferences. Also, these results have been published in international academic journals. Furthermore, a book, *Fukushima Nuclear Disaster and Mental Health* was published from Nippon hyoron sha in March 2021. We intend to continue our analysis and contribute to improve disaster preparation/rehabilitation policies.

Participants of our surveys are approximately 27% of households of Futaba and the results do not represent all Futaba residents. Since the survey was conducted after a major disaster, the characteristics of respondents may be very different from general surveys and there is a possibility of an overestimation in deterioration of health condition in our results. Therefore, we need a special caution in interpreting the results, and any definitive judgments based solely on these findings should be avoided.

Appendix: Summary Tables

Who is filling out this questionnaire?

	Freq	%
Household head	613	77.69
Spouse	112	14.20
Other	11	1.39
No answer	53	6.72
Total	789	100.00

1. Please tell us about the household head.

(1) Basic information of the household head

A) Average age: 69 yrs Oldest: 104 yrs Youngest: 32 yrs

B) Sex distribution, Male: 76.4% Female: 21.8%

No response: 1.8%

C) Current prefecture

We received answers from all over Japan. Thank you.

(The aggregate result is omitted.)

(D) Current job of the household head

	Freq	%
Company employee	115	14.58
Civil servant	31	3.93
Agriculture and Forestry	11	1.39
Fisheries	0	0.00
Free practice of medical practitioners, attorneys, etc.	0	0.00
Self-employed business	33	4.18
Part-time job	22	2.79
Housekeeper	38	4.82
Retired	282	35.74
Unemployed or on leave of absence	183	23.19
Other	34	4.31
No answer	40	5.07
Total	789	100.00

(E) Job before the Great East Japan Earthquake.

	Freq	%
Company employee	183	43.99
Civil servant	39	9.38
Agriculture and Forestry	34	8.17
Fisheries	0	0.00
Free practice of medical practitioners, attorneys, etc.	1	0.24
Self-employed business	55	13.22
Part-time job	12	2.88
Housekeeper	16	3.85
Retired	25	6.01
Unemployed or on leave of absence	18	4.33
Other	14	3.37
No answer	19	4.57
Total	416	100.00

(2) Current and pre-disaster dwelling type

A) Current dwelling type

	Freq	%
Temporary shelter	7	0.89
Post disaster public-funded rental accommodation (deemed temporary shelter)	30	3.80
Public reconstruction housing	76	9.63
Rented	42	5.32
Owned house (different from the one before the earthquake)	518	65.65
Relative's house	23	2.92
Company housing	3	0.38
Other	43	5.45
No answer	47	5.96
Total	789	100.00

·If you live in a public reconstruction housing, please choose the application process you used.

(The aggregate result is omitted.)

·If you live in the public reconstruction housing and applied for the group, please choose the one with who you applied.

(As there are few people applied, we omit the result)

B) Size of the land and living space of your current residence

Land size (Residential)	Freq	%
0 ~ 100 square meters	54	6.84
100 ~ 200 square meters	101	12.80
200 ~ 300 square meters	144	18.25
300 square meters ~	209	26.49
No answer	287	35.61
Total	789	100.00

Land size (Other)	Freq	%
0 ~ 100 square meters	44	5.58
100 ~ 200 square meters	11	1.39
200 ~ 300 square meters	10	1.27
300 square meters ~	19	2.41
No answer	705	89.35
Total	789	100.00

Living space size	Freq	%
0 ~ 40 square meters	19	2.41
40 ~ 80 square meters	78	9.89
80 ~ 120 square meters	137	17.36
120 square meters ~	264	33.46
No answer	291	36.88
Total	789	100.00

C) Dwelling type before the Great East Japan Earthquake

	Freq	%
Owned house (detached house)	333	80.05
Owned house (condominium)	5	1.20
Rental (detached house)	9	2.16
Rental (condominium)	0	0.00
Rental (apartment)	10	2.40
Public housing	22	5.29
Company housing	16	3.85
Relatives' house	3	0.72
Other	0	0.00
No answer	18	4.33
Total	416	100.00

D) Size of the land and living space of your residence before the Great East Japan Earthquake?

Land size (Residential)	Freq	%
0 ~ 100 square meters	11	2.64
100 ~ 200 square meters	27	6.49
200 ~ 300 square meters	29	6.97
300 square meters ~	225	54.09
No answer	124	29.81
Total	416	100.00

Land size (Other)	Freq	%
0 ~ 100 square meters	5	1.20
100 ~ 200 square meters	8	1.92
200 ~ 300 square meters	4	0.96
300 square meters ~	40	9.62
No answer	359	86.30
Total	416	100.00

Living space size	Freq	%
0 ~ 40 square meters	8	1.92
40 ~ 80 square meters	18	4.33
80 ~ 120 square meters	32	7.69
120 square meters ~	210	50.48
No answer	148	35.58
Total	416	100.00

E) Was your house before the earthquake got hit by the tsunami?

	Freq	%
Yes	48	6.08
No	692	87.71
No answer	49	6.21
Total	789	100.00

F.) Damage to a home in Futaba

	Freq	%
Completely destroyed	147	18.63
Large-scale partial collapse	161	20.41
Partial collapse	245	31.05
Partial destruction	115	14.58
No major damage	67	8.49
Other	20	2.53
No answer	34	4.31
Total	789	100.00

(3) Total number of moves after the Great East Japan Earthquake

	Freq	%
Less than 3 times	110	13.94
3 ~ 5 times	410	51.96
6 ~ 8 times	198	25.10
More than 9 times	40	5.07
No answer	31	3.93
Total	789	100.00

(4) Have you ever lost in the lottery for public reconstruction housing entry?

	Freq	%
Yes	21	2.66
No	467	59.19
No answer	301	38.15
Total	789	100.00

(5) Academic history of the household head

	Freq	%
High school	238	57.21
Vocational school	36	8.65
Junior college	14	3.37
University	59	14.18
Other	20	4.81
No answer	49	11.78
Total	416	100.00

(6) Family and relatives of the household head before and after the disaster.

A) Current family structure

① Are you married now?

	Freq	%
Yes	567	71.86
No	59	7.48
Divorced	52	6.59
Bereaved	83	10.52
No answer	28	3.55
Total	789	100.00

② Do you have any children?

	Freq	%
Yes	633	80.23
No	101	12.80
No answer	55	6.97
Total	789	100.00

③ Do you have any grandchildren?

	Freq	%
Yes	441	55.89
No	276	34.98
No answer	72	9.13
Total	789	100.00

④ Do you have any pets?

	Freq	%
Yes	181	22.94
No	567	71.86
No answer	41	5.20
Total	789	100.00

⑤ How many family members does the household head live with including himself/herself ?

	Freq	%
1 person	162	20.53
2 people	283	35.87
3 ~ 4 people	242	30.67
5 or more	64	8.11
No answer	38	4.82
Total	789	100.00

⑥ Family members whom the head of the household live with

(Aggregate result omitted)

⑦ How many family members lived together with the household head before the Great East Japan Earthquake including the household head himself/herself?

	Freq	%
1 person	44	10.58
2 people	83	19.95
3 ~ 4 people	147	35.34
5 or more	95	22.84
No answer	47	11.30
Total	416	100.00

⑧ Family members who the head of the household live with before the Great East Japan Earthquake

(Aggregate result omitted)

⑨ Among the family members who you lived together with before the Great East Japan Earthquake, are there any family members who died after the earthquake?

	Freq	%
Yes	243	30.80
No	512	64.89
No answer	34	4.31
Total	789	100.00

→ For those answered yes, did his/her death was officially certified as a disaster-affected death?

	Freq	%
Yes	76	31.28
None	109	44.86
No answer	58	23.87
Total	243	100.00

(7) How is the current health of the head of the household?

	Freq	%
Very good	21	2.66
Good	244	30.93
Can't say either way	331	41.95
Bad	159	20.15
Terrible	27	3.42
No answer	7	0.89
Total	789	100.00

(8) How is the current health of the household head compared to the condition before the disaster?

	Freq	%
Much better	3	0.38
Better	23	2.92
Remain unchanged	266	33.71
Worse	430	54.50
Much worse	57	7.22
No answer	10	1.27
Total	789	100.00

(9) The following questions ask about how you have been feeling during the past 30 days. For each question, please circle the number that best describes how often you had this feeling.

During the past 30 days, about how often did you feel ... (Point criteria)	None of the time	A little of the time	Some of the time	Most of the time	All of the time
...nervous?	0	1	2	3	4
...hopeless?	0	1	2	3	4
...restless or fidgety?	0	1	2	3	4
...so depressed that nothing could cheer you up?	0	1	2	3	4
...that everything was an effort?	0	1	2	3	4
...worthless?	0	1	2	3	4

Total points (K6 score) distribution:

	Freq	%
0 ~ 4 points	286	36.25
5 ~ 8 points	190	24.08
9 ~ 12 points	149	18.88
13 ~ 16 points	63	7.98
17 points or more	47	5.96
No answer	54	6.84
Total	789	100.00

(10) When did you (household head) do your summer homework when you were in junior high school?

	Freq	%
In the beginning of the summer vacation.	68	8.62
Rather in the beginning	164	20.79
Almost equally every day.	102	12.93
Rather in the end	252	31.94
In the end	128	16.22
Didn't do i	13	1.65
Didn't have any summer homework.	11	1.39
No answer	51	6.46
Total	789	100.00

(11) Due to the environment change, it has become difficult to cook at home for many evacuees, and there are concerns about health hazards for them. Please tell us the frequency of eating out before and after the disaster.

Before the earthquake: average 0.8 times/week
 Currently: average 1.0 times/week

Pre- disaster and current drinking habits

	Currently				Total
	Every day	Some-times	Don't smoke	No ans	
Every day	197	43	25	4	269
Sometimes	46	133	61	1	241
Don't smoke.	4	12	226	10	252
No ans	1	0	11	15	27
Total	248	188	323	30	789

(12) Has your weight changed after the disaster?

	Freq	%
Increased	133	16.86
Slightly increased	208	26.36
Remain unchanged	191	24.21
Slightly decreased	149	18.88
Decreased	94	11.91
No answer	14	1.77
Total	789	100.00

(13) Approximate weight and height before and after the Great East Japan Earthquake. (distribution of the BMI values)

	Before the disaster (Freq)	After the disaster (Freq)
Less than 18.5	24	45
18.5 ~ 25	470	430
25 ~ 30	207	220
30 or more	25	43
No answer	63	51
Total	789	789

(14) Health concerns have been raised for disaster victims due to the inconvenience of transportation.

A) The number of cars owned by your family members living together before and after the earthquake
 Average before the earthquake: 2.4, Current average: 1.8

B) Did you buy a car after the disaster?

	Freq	%
Yes	579	73.38
No	123	15.59
No answer	87	11.03
Total	789	100.00

(15) Average sleep time before and after the disaster

Before the disaster: 7.0 hrs, Currently: 6.6 hrs

(16) Smoking and drinking habits before and after the disaster
 Pre- disaster and current smoking habits

	Currently					Total
	Every day	Some-times	Don't smoke	No ans		
Before the disaster	Every day	125	9	95	4	233
	Sometimes	3	5	19	1	28
	Don't smoke.	7	2	473	15	497
	No ans	0	0	15	16	31
	Total	135	16	602	36	789

(17) (In recent years, research on "happiness" has been progressing and we ask you a question based on such existing research. However, the answer is optional.) How happy are you (household head) now? If you put "So happy" at 10 and "misery" at 0, what do you think would be your score?

	Freq	%
0 (Misery)	18	2.28
1	21	2.66
2	27	3.42
3	86	10.90
4	79	10.01
5	179	22.69
6	80	10.14
7	94	11.91
8	113	14.32
9	26	3.30
10 (So happy.)	22	2.79
No answer	44	5.58
Total	789	100.00

(18) What do you think about your life expectancy before and after the earthquake?

	Freq	%
The life span got shortened.	237	30.04
The life span is unchanged.	455	57.67
The life span got lengthened.	59	7.48
No answer	38	4.82
Total	789	100.00

(19) How long do you want to live?

	Freq	%
Up to 75 years old	64	8.11
Up to 80 years old	140	17.74
Up to 85 years old	180	22.81
Up to 90 years old	165	20.91
Up to 95 years old	42	5.32
Up to 100 years old	34	4.31
100 years of age or older	14	1.77
Want to live as long as possible	113	14.32
No answer	37	4.69
Total	789	100.00

2. Relationship with neighbors

(1) Which area of Futaba did the household head live before the disaster?

	Freq	%		Freq	%
Ishiguma	6	1.44	Konokusa	14	3.37
Yamada	31	7.45	Hosoya	5	1.20
Matsuzako	1	0.24	Shimohadori	9	2.16
Mizusawa	2	0.48	Nakata	4	0.96
Mesaku	9	2.16	Nagatsuka	119	28.61
Koriyama	17	4.09	Morotake	9	2.16
Kamihaatori	2	0.48	Nakahama	6	1.44
Niiyama	81	19.47	Nakano	1	0.24
Matsukura	1	0.24	Maeda	37	8.89
Terasawa	5	1.20	No answer	50	12.02
Shibukawa	7	1.68	Total	416	100.00

(2) How often have you help each other with your neighbors before and after the disaster?

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Quite often	144	22	34.62	2.79
Moderately	221	223	53.13	28.26
Not much	31	285	7.45	36.12
None	13	248	3.13	31.43
No answer	7	11	1.68	1.39
Total	416	789	100.0	100.0

(3) My neighbors help me when I'm in trouble.

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Strongly agree	85	20	20.43	2.53
Agree	200	126	48.08	15.97
can't say either	90	312	21.63	39.54
Don't agree	16	163	3.85	20.66
Not at all	6	143	1.44	18.12
No answer	19	25	4.57	3.17
Total	416	789	100.0	100.0

(4) Life style before and after the disaster

I often go out leave the door unlocked.

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Yes	195	54	46.88	6.84
No	205	708	49.28	89.73
I don't know.	5	5	1.20	0.63
No answer	11	22	2.64	2.79
Total	416	789	100.0	100.0

I often lend money or goods to friends

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Yes	107	23	25.72	2.92
No	276	723	66.35	91.63
I don't know.	18	17	4.33	2.15
No answer	15	26	3.61	3.30
Total	416	789	100.0	100.0

I have been a victim of burglary, including one at my home in Futaba, where I was absent.

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Yes	84	241	20.19	30.54
No	284	438	68.27	55.51
I don't know.	34	85	8.17	10.77
No answer	14	25	3.37	3.17
Total	416	789	100.0	100.0

I have been a victim of other crimes

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Yes	28	64	6.73	8.11
No	350	642	84.13	81.37
I don't know.	23	52	5.53	6.59
No answer	15	31	3.61	3.93
Total	416	789	100.00	100.00

I think most people try to be fair.

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Yes	210	275	50.48	34.85
No	43	134	10.34	16.98
I don't know.	144	349	34.62	44.23
No answer	19	31	4.57	3.93
Total	416	789	100.00	100.00

I think that I am trusted by others.

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Yes	182	199	43.75	25.22
No	26	67	6.25	8.49
I don't know.	193	501	46.39	63.50
No answer	15	22	3.61	2.79
Total	416	789	100.00	100.00

(5) Participation in volunteer and hobby gatherings

•I sometimes participate in volunteer activities

	Recent participation			
	Yes	No	No ans	Total
Participation before disaster	121	199	5	325
	43	384	8	435
	0	10	19	29
Total	164	593	32	789

•I sometimes participate in hobby activities.

	Recent participation			
	Yes	No	No ans	Total
Participation before disaster	147	172	23	342
	57	337	10	404
	5	10	28	43
Total	209	519	61	789

• Average number of non-family members to exchange greetings in a day: Before the disaster(15) Recently (6)

(6) Generally speaking, would you say that most people can be trusted or you can't be too careful in dealing with people?

	Freq		%	
	Before disaster	Recently	Before disaster	Recently
Always trusted	83	53	19.95	6.72
Usually trusted	236	374	56.73	47.40
Usually not trusted	62	225	14.90	28.62
Always not trusted	13	106	3.13	13.43
No ans	22	31	5.29	3.93
Total	416	789	100.0	100.0

(7) Your thoughts before and after the disaster.

•The national government is trustable.

	Recently					
	Strongly agree	Agree	Don't agree	Not at all	No answer	Total
Before the disaster	3	3	5	3	0	14
	4	195	125	41	11	376
	0	10	188	88	6	292
	0	0	4	61	0	65
	0	0	3	2	37	42
Total	7	208	325	195	54	789

•Fukushima prefectural government is trustable.

	Recently					
	Strongly agree	Agree	Don't agree	Not at all	No answer	Total
Before the disaster	23	10	3	3	2	41
	7	349	123	14	13	506
	0	11	132	34	2	179
	0	0	2	22	0	24
	0	2	3	0	34	39
Total	30	372	263	73	51	789

•Neighbors are trustable.

	Recently					
	Strongly agree	Agree	Don't agree	Not at all	No answer	Total
Before the disaster	9	46	25	5	3	88
	1	367	144	25	11	548
	0	7	71	21	3	102
	0	0	2	8	1	11
	1	1	3	0	35	40
Total	11	421	245	59	53	789

(8) Communication with residents in evacuation destinations

1. Do you have any opportunities to interact with the residents of the current evacuation destination?

	Freq	%
Yes	371	47.02
No	345	43.73
Don't know.	48	6.08
No ans	25	3.17
Total	789	100.00

2. Do you attend any events or meetings (Festivals, cleaning activities, etc.) held in the area where you currently live?

	Freq	%
Yes	382	48.42
No	372	47.15
Don't know.	19	2.41
No answer	16	2.03
Total	789	100.00

3. Have you felt that you should hide you are a Futaba resident from residents in the current evacuation destination?

	Freq	%
Yes	325	41.19
No	360	45.63
Don't know.	77	9.76
No answer	27	3.42
Total	789	100.00

→ If Yes: Do you still feel that?

	Freq	%
Yes	285	74.03
No	48	12.47
Don't know.	43	11.17
No answer	9	2.34
Total	385	100.00

4. Do residents of the evacuation destination know that you are a Futabacho resident?

	Freq	%
Yes	460	58.30
No	125	15.84
Don't know.	191	24.21
No answer	13	1.65
Total	789	100.00

5. Have you ever felt uneasy about taking out garbage at the place where you currently live?

	Freq	%
Yes	94	11.91
No	659	83.52
Don't know.	18	2.28
No answer	18	2.28
Total	789	100.00

→ If Yes: Do you still feel that?

	Freq	%
Yes	65	37.57
No	100	57.80
Don't know.	6	3.47
No answer	2	1.16
Total	173	100.00

6. Have you been called bad names or misbehaved by the residents of the area you live now because you are a Futaba resident?

	Freq	%
Yes	77	9.76
No	631	79.97
Don't know	58	7.35
No answer	23	2.92
Total	789	100.00

→ If Yes: Do you still feel that?

	Freq	%
Yes	23	13.94
No	103	62.42
Don't know	30	18.18
No answer	9	5.45
Total	165	100.00

(9) Participation in the Futaba respect for the aged gatherings

1. 2019

	Freq	%
Attended	81	10.27
Did not attend	376	47.66
Not applicable (Under 70 years)	259	32.83
No answer	73	9.25
Total	789	100.00

2. 2018

	Freq	%
Attended	92	11.66
Did not attend	332	42.08
Not applicable (Under 70 years)	275	34.85
No answer	90	11.41
Total	789	100.00

3. 2017

	Freq	%
Attended	80	10.14
Did not attend	307	38.91
Not applicable (Under 70 years)	304	38.53
No answer	98	12.42
Total	789	100.00

4. 2016

	Freq	%
Attended	71	9.00
Did not attend	285	36.12
Not applicable (Under 70 years)	320	40.56
No answer	113	14.32
Total	789	100.00

5. 2010 (Before the Great East Japan Earthquake)

	Freq	%
Attended	98	12.42
Did not attend	224	28.39
Not applicable (Under 70 years)	355	44.99
No answer	112	14.20
Total	789	100.00

(10) After the Great East Japan Earthquake, have you attended the gatherings of each residential area in Futaba?

	Freq	%
Yes	401	50.82
No	367	46.51
No answer	21	2.66
Total	789	100.00

(11) Have you ever attended a gathering of Futaba residents in the current residential area?

	Freq	%
Yes	282	35.74
No	485	61.47
No answer	22	2.79
Total	789	100.00

(12) Acquaintances and friends at the current evacuation site
1. Do you have any neighbors whom you have known since the predisaster period?

	Freq	%
Yes	362	45.88
No	358	45.37
Don't know	55	6.97
No answer	14	1.77
Total	789	100.00

2. Do you have any neighbors who you had not know each other before the disaster but got to know each other during the evacuation?

	Freq	%
Yes	287	36.38
No	412	52.22
Don't know	69	8.75
No answer	21	2.66
Total	789	100.00

3. Do you have any relatives living near your current place?

	Freq	%
Yes	336	42.59
No	417	52.85
Don't know	10	1.27
No answer	26	3.30
Total	789	100.00

4. Do you have any friends from Futaba whom you got to be friends with after the disaster?

	Freq	%
Yes	214	27.12
No	512	64.89
Don't know	28	3.55
No answer	35	4.44
Total	789	100.00

5. Do you have any friends evacuated from other places than Futaba whom you got to be friends with after the disaster?

	Freq	%
Yes	205	25.98
No	494	62.61
Don't know	65	8.24
No answer	25	3.17
Total	789	100.00

6. Do you have any new friends from current living site whom you got to be friends with after the disaster at the current evacuation site?

	Freq	%
Yes	240	30.42
No	459	58.17
Don't know	50	6.34
No answer	40	5.07
Total	789	100.00

(13) I would like to ask you about New Year's cards.

① How many New Year's cards did you (household head) send out this year (2019)?

	Freq	%
0	280	35.49
1 ~ 10	109	13.81
11 ~ 50	245	31.05
51 or more	104	13.18
No answer	51	6.46
Total	789	100.00

*Among 0, 57 are in mourning and 157 do not send out New Year's Cards regularly.

② For those who who sent out New Year's cards this year (2019), when did you post the earliest New Year's cards? :

Average: Around December 23

③ How many New Year's cards did you send out for the New Year's Day before the Great East Japan Earthquake (2011)?

	Freq	%
0	113	14.32
1 ~ 10	60	7.60
11 ~ 50	276	34.98
51 or more	256	32.45
No answer	84	10.65
Total	789	100.00

*Among 0, 8 are in mourning and 72 do not send out New Year's Cards regularly.

④ For those who sent out New Year's cards for the New Year's Day in 2011, when did you post the earliest New Year's cards? :

Average: Around December 22 in 2010

3. Future plan

(1) Does the household head plan to return to Futaba in the future?

	Freq	%
Yes	54	6.84
Haven't decided	185	23.45
No/ Cannot	535	67.81
No answer	15	1.90
Total	789	100.00

(2) Have you decided where you are going to live for the long term from now?

	Freq	%
Decided	393	59.81
Haven't decided/ Don't know	208	26.36
No answer	188	23.83
Total	789	100.00

(3) How many years did you live in Futaba before the disaster?

	Freq	%
Less than 10 years	55	6.97
10 to less than 20 years	65	8.24
20 to less than 50 years	288	36.50
50 years or more	353	44.74
No answer	28	3.55
Total	789	100.00

(4) Before the disaster, were you planning to live outside Futaba in the future?

	Freq	%
Yes	78	9.89
No	679	86.06
No answer	32	4.06
Total	789	100.00

4. Income

(1) Current household income

Average: 3.29 million JPY, Median: 2.5 million JPY

(2) Household income before the disaster:

Average: 5.61 million JPY, Median: 5.0 million JPY

(3) Did you do job hunting after the disaster?

	Freq	%
Yes (Got a job.)	155	19.65
Yes (Couldn't get a job.)	68	6.62
No	430	54.50
No answer	136	17.24
Total	789	100.00

5. Please feel free to write about any challenges you face, what you have noticed and what you feel.

We received many valuable opinions.

Thank you very much.