

# The Results of Radioactive Material Monitoring of the Surface Water Bodies within Chiba Prefecture

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In accordance with the Comprehensive Radiation Monitoring Plan determined by the Monitoring Coordination Meeting, the Ministry of the Environment (MOE) is continuing to monitor radioactive materials in water environments (surface water bodies (rivers, lakes, headwaters, and coasts), etc.).

Samples taken from the surface water bodies of Chiba Prefecture during the period of October 31-November 4 have been measured as part of MOE'S efforts to monitor radioactive materials; the results have recently been compiled and are released here. (The results for Yamagata Prefecture (October 24-27 samples) are simultaneously released.)

\*The following monitoring results have already been released: Fukushima Prefecture (September 15-October 14 samples: Released November 15), Ibaraki Prefecture (August 30-October 8 samples: Released December 2), Miyagi Prefecture (October 3-November 7 samples: Released December 16), and Tochigi Prefecture (October 5-24 samples: Released December 16).

## 1. Survey Overview

### (1) Survey Locations

49 environmental reference points, etc. in the surface water bodies within Chiba Prefecture  
(Rivers: 41 locations, Lakes and headwaters: 8 locations)

### (2) Survey Method

- Measurement of concentrations of radioactive materials (radioactive iodine (I-131), radioactive cesium (Cs-134 and Cs-137)) in water and sediment
- Measurement of concentrations of radioactive materials and spatial dose-rate in soil in the surrounding environment of water and sediment sample collection points (river terraces, etc.)

## 2. Outline of Results

### (1) Water Quality (Lower detection limit: 1Bq/L)

- Radioactive iodine (I-131) Not detectable (ND) at any location
- Radioactive cesium (Cs-134, Cs-137) ND at any location

\*“Regulatory Guide: Emergency Preparedness for Nuclear Facilities (Nuclear Safety Commission)”

Standards for Restrictions on the Intake of Food and Drink (Drinking Water)

Radioactive iodine (I-131): 300Bq/kg or more

Radioactive cesium (total for Cs-134 + Cs-137): 200Bq/kg or more

### (2) Sediment

- Radioactive iodine (I-131) ND at any location (Lower detection limit: 30Bq/kg (dried mud))
- Radioactive cesium

(Rivers)

Cs-134: 18-4,300Bq/kg (dried mud)

Cs-137: 26-5,400Bq/kg (dried mud)

(Lakes and headwaters)

Cs-134: 320-1,500Bq/kg (dried mud)

Cs-137: 410-1,800Bq/kg (dried mud)

(3) Surrounding Environment

- Radioactive iodine (I-131) : ND at any location (Lower detection limit: 30Bq/kg (dry))

- Radioactive cesium

(Rivers)

Cs-134: 51-3,000Bq/kg (dry)

Cs-137: 63-3,600Bq/kg (dry)

(Lakes and headwaters)

Cs-134: 210-840Bq/kg (dry)

Cs-137: 290-1,000Bq/kg (dry)

- Spatial dose

(Rivers) 0.04-0.74 $\mu$ Sv/h

(Lakes and headwaters) 0.22-0.44 $\mu$ Sv/h

(Annex for details)

(Map attached)

Future Plans

In coordination with relevant organizations, MOE intends to continue to measure radioactive materials in water, sediment, etc. in rivers, lakes, etc. in the following prefectures: Fukushima, Miyagi, Yamagata (some parts), Iwate (some parts), Ibaraki, Tochigi, Gunma and Chiba (some parts).

ORivers (Chiba Prefecture): Water Quality Monitoring Results

(Annex)

No.	Sampling point				Sampling date	Weather	Air temperature ℃	Full depth m	General items						Radioactive material concentrations (Bq/L)			Remarks
	Water body	Point	Municipality	Water temperature ℃					Sampling depth m	Transparency cm	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium			
															Cs-134	Cs-137		
1	Tonegawa River System	Shogengawa River	Fukamaohashi Bridge	Inzaishi City/Sakaemachi Town	2011/11/4	Sunny	19.1	1.30	18.0	0.0	36	29.9	10	11	<1	<1	<1	
2			Shinbeibashi Bridge	Inzaishi City/Sakaemachi Town	2011/10/31	Clear	21.9	0.56	19.8	0.0	57	28.0	20	17	<1	<1	<1	
3		Nagatogawa River	Intake at Maeshinden Water Purification Plant	Inzaishi City/Sakaemachi Town	2011/10/31	Sunny	20.0	0.32	19.2	0.0	21	26.3	34	33	<1	<1	<1	
4			Nagatobashi Bridge	Inzaishi City/Sakaemachi Town	2011/10/31	Clear	22.3	0.25	21.0	0.0	66	28.7	19	22	<1	<1	<1	
5			Fujimbashi Bridge	Sakaemachi Town	2011/10/31	Sunny	20.6	0.32	19.1	0.0	100 or more	27.7	6	6.0	<1	<1	<1	
6		Ryudaigawa River	Ryumatsunohashi Bridge	Naritashi City/Sakaemachi Town	2011/11/1	Clear	18.8	0.08	15.9	0.0	18	138.8	26	31	<1	<1	<1	
7		Nekonagawa River	Shinkawa Floodgate	Naritashi City	2011/11/1	Clear	22.0	1.98	17.9	0.0	40	56.8	9	10	<1	<1	<1	
8	Feeder Rivers of Teganuma Lake	Ohorigawa River	Kitakashiwabashi Bridge	Kashiwashi City	2011/11/1	Clear	22.2	0.73	18.0	0.0	100 or more	34.0	6	7.1	<1	<1	<1	
9		Otsugawa River	Sannobashi Bridge, under	Kamagayashi City	2011/11/3	Cloudy	21.1	0.43	18.0	0.0	100 or more	37.8	11	9.3	<1	<1	<1	
10		Kaminumabashi Bridge	Kashiwashi City	2011/11/1	Sunny	21.0	0.67	18.6	0.0	100 or more	54.3	5	6.4	<1	<1	<1		
11		Someirotoshi	Someishinbashi Bridge	Kashiwashi City	2011/11/1	Clear	20.5	0.52	20.2	0.0	81	48.6	5	5.0	<1	<1	<1	
12		Kanayamaotoshi	Downstream of Karuzawasakabashi Bridge	Kamagayashi City/Usuihi City	2011/11/3	Cloudy	19.2	0.10	17.5	0.0	100 or more	37.9	9	7.6	<1	<1	<1	
13			Nauchibashi Bridge	Shiroishi City	2011/11/1	Clear	18.8	0.40	17.6	0.0	100 or more	36.8	3	3.4	<1	<1	<1	
14		Kamenarigawa River	Kamenaribashi Bridge	Inzaishi City	2011/10/31	Sunny	16.9	0.48	16.4	0.0	100 or more	33.0	11	11	<1	<1	<1	
15	Feeder Rivers of Inbanuma Lake	Igasasuiro Channel	Downstream of Igasasuiro Channel	Kamagayashi City	2011/11/3	Cloudy	20.0	0.08	18.5	0.0	100 or more	42.5	5	5.6	<1	<1	<1	
16		Futaegawa River	Tomigayabashi Bridge	Funabashishi City/Usuihi City	2011/11/3	Cloudy	17.0	0.28	15.4	0.0	100 or more	36.5	5	3.8	<1	<1	<1	
17		Kanzakigawa River	Kanzakibashi Bridge	Yachiyoshi City/Inzaishi City	2011/11/1	Sunny	20.2	1.60	17.8	0.0	100 or more	41.3	3	4.4	<1	<1	<1	
18		Kannogawa River	Kannobashi Bridge	Yachiyoshi City	2011/11/3	Cloudy	16.1	0.28	16.2	0.0	100 or more	41.2	7	6.9	<1	<1	<1	
19		Inba Discharge Channel (upper reaches)	Yachiyobashi Bridge	Yachiyoshi City	2011/11/3	Cloudy	18.2	3.10	17.8	0.0	26	35.5	35	26	<1	<1	<1	
20		Tegurigawa River	Mumeibashi Bridge	Sakurashi City	2011/11/3	Sunny	19.0	0.30	15.6	0.0	100 or more	40.6	6	5.7	<1	<1	<1	
21		Morotogawa River	Morotobashi Bridge	Inzaishi City	2011/11/1	Sunny	15.2	0.98	17.0	0.0	72	28.5	4	6.6	<1	<1	<1	
22		Kashimagawa River	Iwatombashi Bridge	Sakurashi City	2011/11/3	Cloudy	22.2	0.90	16.4	0.0	100 or more	38.6	5	5.6	<1	<1	<1	
23		Takasakigawa River	Ryutobashi Bridge	Sakurashi City	2011/11/3	Cloudy	22.2	0.78	16.5	0.0	100 or more	40.0	4	5.2	<1	<1	<1	
24		Kashimagawa River	Kashimabashi Bridge	Sakurashi City	2011/11/3	Cloudy	19.8	2.51	16.8	0.0	100 or more	41.1	5	5.9	<1	<1	<1	
25		Inbasuiro Channel	Tsurumakibashi Bridge	Inzaishi City	2011/11/4	Sunny	19.5	2.10	18.2	0.0	30	22.0	24	22	<1	<1	<1	
26	E d o S a w a R i v e r	Toneunga Canal	Ungabashi Bridge	Nagareyamashi City	2011/11/3	Cloudy	21.0	0.40	19.3	0.0	59	46.6	15	14	<1	<1	<1	
27		Edogawa River	Nagareyamabashi Bridge	Nagareyamashi City/Misatoshi City	2011/11/3	Cloudy	22.6	0.50	17.0	0.0	100 or more	28.8	6	6.2	<1	<1	<1	
28		Sakagawa River	Bentenbashi Bridge	Matsudoshi City	2011/11/3	Cloudy	20.6	1.86	18.2	0.0	74.5	39.6	10	12	<1	<1	<1	
29		Shinsakagawa River	Sakanebashi Bridge	Matsudoshi City	2011/11/3	Cloudy	22.8	0.60	18.7	0.0	70	34.3	10	9.9	<1	<1	<1	
30		Edogawa River	Shinkatsushikabashi Bridge	Matsudoshi City/Katsushika City	2011/11/3	Cloudy	16.9	0.70	16.5	0.0	65	28.0	11	10	<1	<1	<1	
31			Shingyotokubashi Bridge	Ichikawashi City	2011/11/4	Sunny	21.8	0.50	19.7	0.0	70	4190.0	5	6.0	<1	<1	<1	
32		Kyuedogawa River	Urayasubashi Bridge	Urayasushi City/Edogawa City	2011/11/4	Sunny	18.4	7.34	17.9	0.0	68	86.0	7	8.1	<1	<1	<1	
33		Mamagawa River	Nemoto Floodgate	Ichikawashi City	2011/11/4	Sunny	21.4	1.27	17.4	0.0	70	28.9	6	6.8	<1	<1	<1	
34		Kokubugawa River	Suwadabashi Bridge	Ichikawashi City	2011/11/4	Sunny	21.2	1.21	18.4	0.0	100 or more	49.4	5	6.3	<1	<1	<1	
35		Harukigawa River	Before the confluence with Kokubugawa River	Ichikawashi City	2011/11/4	Sunny	24.4	0.86	19.4	0.0	56	74.2	8	9.0	<1	<1	<1	
36		Hasen-okashiwagawa River	Downstream of Nakazawashinbashi Bridge	Kamagayashi City/Ichikawashi City	2011/11/4	Sunny	23.3	1.10	20.2	0.0	100 or more	48.9	5	5.1	<1	<1	<1	
37		Okashiwagawa River	Sengenbashi Bridge	Ichikawashi City	2011/11/4	Sunny	20.2	1.93	17.8	0.0	100 or more	70.1	4	4.9	<1	<1	<1	
38		Mamagawa River	Mitomaebashi Bridge	Ichikawashi City	2011/11/4	Sunny	23.6	3.45	17.7	0.0	100 or more	16.5	5	5.8	<1	<1	<1	
39	Feeder Rivers of Tokyowan Bay	Ebigawa River	Yachiyobashi Bridge	Funabashishi City	2011/11/4	Sunny	22.8	2.55	19.0	0.0	100 or more	19.0	3	3.5	<1	<1	<1	
40		Inba Discharge Channel (lower reaches)	Shinhanamigawabashi Bridge	Chibashi City	2011/11/4	Sunny	20.9	3.23	18.4	0.0	69	14.2	6	6.9	<1	<1	<1	
41		Miyakogawa River	Miyakobashi Bridge	Chibashi City	2011/11/4	Clear	19.4	1.60	16.5	0.0	100 or more	802.0	7	9.1	<1	<1	<1	

\*Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

# ○River (Chiba Prefecture): Sediment Monitoring Results

No.	Sampling point				Sampling date	Weather	Air temperature ℃	Full depth m	General items				Concentration of radioactive material (Bq/kg)			Remarks
	Water body	Point	Municipality	Mud temperature ℃					Mud sampling depth cm	Mud content %	Property	Radioactive iodine	Radioactive cesium			
1-131					Cs-134	Cs-137										
1	Tonegawa River System	Shogengawa River	Fukamaohashi Bridge	Inzaishi City/Sakaemachi Town	2011/11/4	Sunny	19.1	1.30	18.2	10	48.4	Silt with sand	<30	910	1,000	
2		Shinbeibashi Bridge	Inzaishi City/Sakaemachi Town	2011/10/31	Clear	21.9	0.56	18.6	5	79.3	Sand with gravel	<30	18	32		
3		Nagatogawa River	Intake at Maeshinden Water Purification Plant	Inzaishi City/Sakaemachi Town	2011/10/31	Sunny	20.0	0.32	18.6	10	48.0	Sand with gravel	<30	420	580	
4			Nagatobashi Bridge	Sakaemachi Town	2011/10/31	Clear	22.3	0.25	23.6	5	75.5	Sand with gravel	<30	290	370	
5			Fujimbashi Bridge	Sakaemachi Town	2011/10/31	Sunny	20.6	0.32	18.3	5	74.0	Sand with gravel	<30	320	380	
6		Ryudaigawa River	Ryumatsunohashi Bridge	Naritashi City/Sakaemachi Town	2011/11/1	Clear	18.8	0.08	18.6	5	83.3	Sand with gravel	<30	87	110	
7		Nekonogawa River	Shinkawa Floodgate	Naritashi City	2011/11/1	Clear	22.0	1.98	18.4	5	31.0	Silt with sand	<30	1,000	1,300	
8	Feeder Rivers of Teganuma Lake	Ohorigawa River	Kitakashiwabashi Bridge	Kashiwashi City	2011/11/1	Clear	22.2	0.73	18.7	3	77.6	Sand with gravel	<30	4,300	5,400	
9		Otsugawa River	Sannobashi Bridge, under	Kamagayashi City	2011/11/3	Cloudy	21.1	0.43	16.9	5	53.7	Sand with gravel	<30	1,700	2,200	
10			Kaminumabashi Bridge	Kashiwashi City	2011/11/1	Sunny	21.0	0.67	18.2	10	76.4	Sand with silt	<30	2,200	2,800	
11		Someirotoshi	Someishinbashi Bridge	Kashiwashi City	2011/11/1	Clear	20.5	0.52	17.6	10	47.1	Silt with sand	<30	1,400	1,700	
12		Kanayamatoshi	Downstream of Karuizawasakaibashi Bridge	Kamagayashi City/Usuisi City	2011/11/3	Cloudy	19.2	0.10	17.9	3	73.8	Sand with gravel	<30	1,100	1,400	
13			Nauchibashi Bridge	Shiroishi City	2011/11/1	Clear	18.8	0.40	16.8	10	75.6	Sand	<30	1,000	1,200	
14			Kamenarigawa River	Kamenaribashi Bridge	Inzaishi City	2011/10/31	Sunny	16.9	0.48	16.1	10	31.5	Sand with gravel	<30	86	170
15	Feeder Rivers of Inbanuma Lake	Igusasu Channel	Downstream of Igusasu Channel	Kamagayashi City	2011/11/3	Cloudy	20.0	0.08	18.7	3	85.2	Sand with gravel	<30	1,600	1,900	
16		Futaegawa River	Tomigayabashi Bridge	Funabashishi City/Usuisi City	2011/11/3	Cloudy	17.0	0.28	15.8	3	78.3	Sand with gravel	<30	1,200	1,500	
17		Kanzakigawa River	Kanzakibashi Bridge	Yachiyoshi City/Inzaishi City	2011/11/1	Sunny	20.2	1.60	17.4	10	61.7	Sand with silt	<30	1,200	1,600	
18		Kannogawa River	Kannobashi Bridge	Yachiyoshi City	2011/11/3	Cloudy	16.1	0.28	16.1	5	64.4	Sand	<30	1,500	1,800	
19		Inba Discharge Channel (upper reaches)	Yachiyobashi Bridge	Yachiyoshi City	2011/11/3	Cloudy	18.2	3.10	17.8	10	25.5	Silt with sand	<30	1,600	2,100	
20		Tegurigawa River	Mumeibashi Bridge	Sakurashi City	2011/11/3	Sunny	19.0	0.30	16.0	5	83.9	Sand with gravel	<30	1,100	1,400	
21		Morotogawa River	Morotobashi Bridge	Inzaishi City	2011/11/1	Sunny	15.2	0.98	17.4	10	52.1	Silt with sand	<30	800	960	
22		Kashimagawa River	Iwatomibashi Bridge	Sakurashi City	2011/11/3	Cloudy	22.2	0.90	16.4	10	84.1	Sand	<30	78	100	
23		Takasakigawa River	Ryutobashi Bridge	Sakurashi City	2011/11/3	Cloudy	22.2	0.78	16.8	5	73.3	Sand with silt	<30	140	210	
24		Kashimagawa River	Kashimabashi Bridge	Sakurashi City	2011/11/3	Cloudy	19.8	2.51	17.0	5	83.1	Sand	<30	58	72	
25		Inbasu Channel	Tsurumakibashi Bridge	Inzaishi City	2011/11/4	Sunny	19.5	2.10	17.6	10	77.3	Sand	<30	210	260	
26	Edogawa River System	Toneunga Canal	Ungabashi Bridge	Nagareyama City	2011/11/3	Cloudy	21.0	0.40	18.0	5	81.8	Silt	<30	1,400	1,800	
27		Edogawa River	Nagareyabashi Bridge	Nagareyama City/Misatoshi City	2011/11/3	Cloudy	22.6	0.50	16.9	5	37.7	Sand	<30	110	130	
28		Sakagawa River	Bentenbashi Bridge	Matsudoshi City	2011/11/3	Cloudy	20.6	1.86	17.8	5	69.9	Sand with silt	<30	2,100	2,800	
29		Shinsakagawa River	Sakanebashi Bridge	Matsudoshi City	2011/11/3	Cloudy	22.8	0.60	19.0	3	76.0	Sand with gravel	<30	2,000	2,600	
30		Edogawa River	Shinkatsushikabashi Bridge	Matsudoshi City/Katsushika City	2011/11/3	Cloudy	16.9	0.70	16.6	5	59.6	Silt with sand	<30	600	760	
31			Shingyotokubashi Bridge	Ichikawashi City	2011/11/4	Sunny	21.8	0.50	20.6	3	77.3	Gravel/sand with silt	<30	31	47	
32		Kyuedogawa River	Urayasubashi Bridge	Urayasushi City/Edogawa City	2011/11/4	Sunny	18.4	7.34	18.8	3	81.5	Sand	<30	32	43	
33		Mamagawa River	Nemoto Floodgate	Ichikawashi City	2011/11/4	Sunny	21.4	1.27	20.0	1	70.2	Sand with gravel	<30	490	610	
34		Kokubugawa River	Suwadabashi Bridge	Ichikawashi City	2011/11/4	Sunny	21.2	1.21	18.6	15	72.9	Sand with silt	<30	920	1,100	
35		Harukigawa River	Before the confluence with Kokubugawa River	Ichikawashi City	2011/11/4	Sunny	24.4	0.86	19.4	5	73.5	Sand with silt	<30	610	770	
36		Hasen-okashiwagawa River	Downstream of Nakazawashinbashi Bridge	Kamagayashi City/Ichikawashi City	2011/11/4	Sunny	23.3	1.10	20.2	5	81.9	Sand with gravel	<30	320	390	
37		Okashiwagawa River	Sengenbashi Bridge	Ichikawashi City	2011/11/4	Sunny	20.2	1.93	17.8	5	82.8	Sand	<30	440	530	
38		Mamagawa River	Mitomaebashi Bridge	Ichikawashi City	2011/11/4	Sunny	23.6	3.45	20.8	10	42.4	Silt with sand	<30	180	250	
39	Feeder Rivers of Tokyowan Bay	Ebigawa River	Yachiyobashi Bridge	Funabashishi City	2011/11/4	Sunny	22.8	2.55	21.9	10	46.2	Silt with sand	<30	2,900	3,500	
40		Inba Discharge Channel (lower reaches)	Shinhanamigawabashi Bridge	Chibashi City	2011/11/4	Sunny	20.9	3.23	20.2	10	82.7	Sand with silt	<30	67	100	
41		Miyakogawa River	Miyakobashi Bridge	Chibashi City	2011/11/4	Clear	19.4	1.60	20.2	10	83.5	Sand	<30	24	26	

\*Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

# ○River (Chiba Prefecture): Surrounding Environment (River Terrace) Monitoring Results

Sampling point				Sampling date	Weather	Air temperature ℃	Left bank					Right bank					Remarks	
							Soil			Air dose μSv/h	Soil			Air dose μSv/h				
							Property	Concentration of radioactive material Bq/kg (dry)			Property	Concentration of radioactive material Bq/kg (dry)						
No.	Water body	Point	Municipality	I-131	Radioactive cesium			I-131	Radioactive cesium			μSv/h						
					Cs-134	Cs-137	Cs-134		Cs-137									
1	Tonegawa River System	Shogengawa River	Fukamaohashi Bridge	Inzaishi City/Sakaemachi Town	2011/11/4	Sunny	19.1	Sandy	<30	770	960	0.42	Loamy	<30	280	370	0.48	*1
2		Shinbeibashi Bridge	Inzaishi City/Sakaemachi Town	2011/10/31	Clear	21.9	Loamy	<30	200	250	0.09	Loamy	<30	180	200	0.08		
3		Nagatogawa River	Inake at Maehinden Water Purification Plant	Inzaishi City/Sakaemachi Town	2011/10/31	Sunny	20.0	Loamy	<30	480	610	0.07	Clay-loamy	<30	300	370	0.07	
4			Nagatobashi Bridge	Inzaishi City/Sakaemachi Town	2011/10/31	Clear	22.3	Loamy	<30	51	63	0.09	Sandy	<30	360	420	0.09	
5		Fujimibashi Bridge	Sakaemachi Town	2011/10/31	Sunny	20.6	Loamy	<30	310	360	0.09	Sandy	<30	880	1,100	0.08		
6		Ryudaigawa River	Ryumatsunohashi Bridge	Naritashi City/Sakaemachi Town	2011/11/1	Clear	18.8	Sandy	<30	430	510	0.11	Loamy	<30	310	390	0.12	
7		Nekonagawa River	Shinkawa Floodgate	Naritashi City	2011/11/1	Clear	22.0	Loamy	<30	110	170	0.08	Loamy	<30	550	670	0.07	
8	Feeder Rivers of Teganuma Lake	Ohorigawa River	Kitakashiwabashi Bridge	Kashiwashi City	2011/11/1	Clear	22.2	Loamy	<30	960	1,100	0.61	Loamy	<30	1,200	1,400	0.74	
9		Otsugawa River	Sannobashi Bridge, under	Kamagayashi City	2011/11/3	Cloudy	21.1	Loamy	<30	650	790	0.15	Loamy	<30	530	650	0.16	
10			Kaminumabashi Bridge	Kashiwashi City	2011/11/1	Sunny	21.0	Loamy	<30	1,400	1,800	0.53	Loamy	<30	590	710	0.57	
11		Someiriotoshi	Someishinbashi Bridge	Kashiwashi City	2011/11/1	Clear	20.5	Loamy	<30	1,400	1,700	0.36	Loamy	<30	630	710	0.37	
12		Kanayamaotoshi	Downstream of Karuzawasakabashi Bridge	Kamagayashi City/Usuisi City	2011/11/3	Cloudy	19.2	-	-	-	-	-	-	-	-	-	0.10	(Soil not exposed)
13			Nauchibashi Bridge	Shiroishi City	2011/11/1	Clear	18.8	Loamy	<30	1,100	1,300	0.36	Loamy	<30	1,100	1,300	0.37	*2
14		Kamenarigawa River	Kamenaribashi Bridge	Inzaishi City	2011/10/31	Sunny	16.9	Sandy	<30	3,000	3,600	0.16	Sandy	<30	1,300	1,700	0.14	
15	Igusasu Channel	Downstream of Igusasu Channel	Kamagayashi City	2011/11/3	Cloudy	20.0	-	-	-	-	0.11	-	-	-	-	0.11	(Soil not exposed)	
16	Futaegawa River	Tomigayabashi Bridge	Funabashishi City/Usuisi City	2011/11/3	Cloudy	17.0	Loamy	<30	750	890	0.13	Loamy	<30	740	950	0.14		
17	Kanzakigawa River	Kanzakibashi Bridge	Yachiyoshi City/Inzaishi City	2011/11/1	Sunny	20.2	Loamy	<30	340	430	0.10	Sandy	<30	600	710	0.10		
18	Kannogawa River	Kannobashi Bridge	Yachiyoshi City	2011/11/3	Cloudy	16.1	Loamy	<30	440	530	0.09	Loamy	<30	570	700	0.11		
19	Feeder Rivers of Inbanuma Lake	Inba Discharge Channel (upper reaches)	Yachiyobashi Bridge	Yachiyoshi City	2011/11/3	Cloudy	18.2	Loamy	<30	920	1,100	0.31	Loamy	<30	1,400	1,700	0.32	*2
20		Tegurigawa River	Mumeibashi Bridge	Sakurashi City	2011/11/3	Sunny	19.0	Loamy	<30	860	1,000	0.35	Loamy	<30	1,000	1,300	0.35	*2
21		Morotogawa River	Morotobashi Bridge	Inzaishi City	2011/11/1	Sunny	15.2	Sandy	<30	680	880	0.09	Sandy	<30	460	560	0.09	
22		Kashimagawa River	Iwatombashi Bridge	Sakurashi City	2011/11/3	Cloudy	22.2	Loamy	<30	270	360	0.17	Loamy	<30	160	200	0.16	*2
23		Takasakigawa River	Ryutobashi Bridge	Sakurashi City	2011/11/3	Cloudy	22.2	Loamy	<30	300	410	0.18	Loamy	<30	300	370	0.17	*2
24		Kashimagawa River	Kashimabashi Bridge	Sakurashi City	2011/11/3	Cloudy	19.8	Loamy	<30	200	230	0.16	Loamy	<30	1,000	1,200	0.18	*2
25		Inbasu Channel	Tsurumakibashi Bridge	Inzaishi City	2011/11/4	Sunny	19.5	Sandy	<30	260	310	0.36	Sandy	<30	710	920	0.35	*1
26	Toneunga Canal	Edogabashi Bridge	Nagareyamashi City	2011/11/3	Cloudy	21.0	Clay-loamy	<30	780	970	0.48	Sandy	<30	600	750	0.60	*1	
27	Edogawa River	Nagareyamabashi Bridge	Nagareyamashi City/Misatoshi City	2011/11/3	Cloudy	22.6	Loamy	<30	680	840	0.61	Loamy	<30	400	500	0.48	*1	
28	Sakagawa River	Bentenbashi Bridge	Matsudoshi City	2011/11/3	Cloudy	20.6	-	-	-	-	0.35	-	-	-	-	0.41	(Soil not exposed) *1	
29	Shinsakagawa River	Sakanebashi Bridge	Matsudoshi City	2011/11/3	Cloudy	22.8	-	-	-	-	0.34	-	-	-	-	0.38	(Soil not exposed) *1	
30	Edogawa River System	Edogawa River	Shinkatsushikabashi Bridge	Matsudoshi City/Katsushika City	2011/11/3	Cloudy	16.9	Sandy	<30	1,000	1,100	0.48	Loamy	<30	1,200	1,500	0.42	*1
31		Shingyotokubashi Bridge	Ichikawashi City	2011/11/4	Sunny	21.8	Loamy	<30	150	220	0.08	Loamy	<30	320	410	0.11		
32		Kyuedogawa River	Urayasubashi Bridge	Urayasushi City/Edogawa City	2011/11/4	Sunny	18.4	Loamy	<30	1,700	2,100	0.22	Loamy	<30	530	670	0.23	*2
33		Mamagawa River	Nemoto Floodgate	Ichikawashi City	2011/11/4	Sunny	21.4	Loamy	<30	1,500	1,800	0.27	-	-	-	-	0.22	(Soil not exposed) *2
34		Kokubugawa River	Suwadabashi Bridge	Ichikawashi City	2011/11/4	Sunny	21.2	-	-	-	-	0.25	-	-	-	-	0.26	(Soil not exposed) *2
35		Harukigawa River	Before the confluence with Kokubugawa River	Ichikawashi City	2011/11/4	Sunny	24.4	-	-	-	-	0.25	Loamy	<30	390	510	0.23	*2
36		Hasen-okashiwagawa River	Downstream of Nakazawashinbashi Bridge	Kamagayashi City/Ichikawashi City	2011/11/4	Sunny	23.3	Loamy	<30	560	670	0.28	Sandy	<30	760	900	0.27	*1
37	Okashiwagawa River	Sengenbashi Bridge	Ichikawashi City	2011/11/4	Sunny	20.2	Loamy	<30	1,000	1,200	0.24	Loamy	<30	940	1,100	0.23	*2	
38	Mamagawa River	Mitomaebashi Bridge	Ichikawashi City	2011/11/4	Sunny	23.6	Loamy	<30	320	370	0.07	Loamy	<30	250	320	0.06		
39	Feeder Rivers of Tokyowan Bay	Ebigawa River	Yachiyobashi Bridge	Funabashishi City	2011/11/4	Sunny	22.8	-	-	-	0.04	-	-	-	-	0.04	(Soil not exposed)	
40		Inba Discharge Channel (lower reaches)	Shinhanamigawabashi Bridge	Chibashi City	2011/11/4	Sunny	20.9	Loamy	<30	110	150	0.07	Loamy	<30	170	250	0.07	
41		Miyakogawa River	Miyakobashi Bridge	Chibashi City	2011/11/4	Clear	19.4	-	-	-	-	0.04	-	-	-	-	0.05	(Soil not exposed)

\*Air dose was measured with a survey meter, TCS-172 or TCS-161 of Hitachi-Aloka Medical, Ltd. For points with \*1 in the Remarks column, a survey meter, Model 3 of Ludlum Measurement Inc., and for those with \*2, a Model 5000 of Health Physics Instruments was used. Figures measured with either a Model 3 or a Model 5000 had a tendency to be a little higher than those measured with a TCS-172 or TCS-161 (about 1.6 times higher).

\*Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

# ○Lake and Headwater (Chiba Prefecture): Monitoring Results

Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks
							General items					Concentration of radioactive material Bq/L					
No.	Water body	Point					Water temperature	Sampling depth	Secchi disk depth	Electrical conductivity	SS	Turbidity	Radioactive material				
							°C	m	m	mS/m	mg/L		I-131	Cs-134	Cs-137		
42-45	Teganuma Lake	Fusashita	2011/11/1	Sunny	20.5	2.1	17.8	0.5	0.3	26.4	25	22	<1	<1	<1		
		1 m from the bottom	-	-	-	-	17.6	1.1	-	26.0	23	20	<1	<1	<1		
		Shimoteganuma Chuo	2011/11/1	Sunny	20.0	1.3	18.5	0.5	0.6	27.6	20	18	<1	<1	<1		
		0.5 m from the bottom	-	-	-	-	18.2	0.8	-	29.2	25	20	<1	<1	<1		
		Teganuma Chuo	2011/11/1	Sunny	20.7	1.3	18.3	0.5	0.7	28.9	19	17	<1	<1	<1		
46-49	Inbanuma Lake	0.5 m from the bottom	-	-	-	-	18.2	0.8	-	29.2	19	18	<1	<1	<1		
		Nedoshita	2011/11/1	Sunny	21.0	2.0	18.4	0.5	0.9	28.5	11	12	<1	<1	<1		
		1 m from the bottom	-	-	-	-	18.2	1.0	-	28.9	11	11	<1	<1	<1		
		Kita Inbanuma Chuo	2011/11/1	Clear	20.5	1.6	17.0	0.5	0.5	23.2	43	35	<1	<1	<1		
		1 m from the bottom	-	-	-	-	16.9	0.6	-	23.4	45	38	<1	<1	<1		
47-49	Inbanuma Lake	Ipponmatsushita	2011/11/1	Clear	21.1	1.5	17.0	0.5	0.5	19.6	33	25	<1	<1	<1		
		0.5 m from the bottom	-	-	-	-	17.2	1.0	-	19.7	64	41	<1	<1	<1		
		Lower area of Josuido water	2011/11/1	Clear	18.8	1.5	17.1	0.5	0.5	21.5	40	33	<1	<1	<1		
		0.5 m from the bottom	-	-	-	-	17.3	1.0	-	21.6	43	30	<1	<1	<1		
		Asobashi Bridge	2011/11/1	Clear	19.7	1.8	17.5	0.5	0.8	29.4	21	19	<1	<1	<1		
1 m from the bottom	-	-	-	-	17.7	0.8	-	29.6	26	20	<1	<1	<1				

Sampling point			Sampling date	Weather	Air temperature °C	Full depth m	Sediment							Surrounding environment (lake shore)					Remarks
							General items				Concentration of radioactive material Bq/kg (dried mud)			Soil			Air dose μSv/h		
No.	Water body	Point					Mud temperature	Mud sampling depth	Mud content	Property	Radioactive material			Property	Concentration of radioactive material Bq/kg (dry)				
							°C	cm	%	Radioactive iodine	Radioactive cesium		Radioactive iodine		Radioactive cesium				
										I-131	Cs-134	Cs-137			I-131	Cs-134	Cs-137		
42-45	Teganuma Lake	Fusashita	2011/11/1	Sunny	20.5	2.1	18.5	5	66.5	Silt	<30	380	490	-	-	-	-	-	
		Shimoteganuma Chuo	2011/11/1	Sunny	20.0	1.3	18.5	5	36.7	Silt	<30	600	750	Loamy	<30	770	930	0.34	
		Teganuma Chuo	2011/11/1	Sunny	20.7	1.3	19.2	5	24.4	Silt	<30	400	590	-	-	-	-	-	
		Nedoshita	2011/11/1	Sunny	21.0	2.0	18.5	5	29.0	Silt	<30	1,500	1,800	Loamy	<30	380	510	0.44	
		0.5 m from the bottom	-	-	-	-	-	18.0	5	23.8	Silt	<30	320	410	Loamy	<30	840	1,000	0.44
46-49	Inbanuma Lake	Ipponmatsushita	2011/11/1	Clear	21.1	1.5	18.2	5	24.1	Silt	<30	520	640	-	-	-	-	-	
		Lower area of Josuido water	2011/11/1	Clear	18.8	1.5	17.8	5	29.0	Silt	<30	480	620	-	-	-	-	-	
		Asobashi Bridge	2011/11/1	Clear	19.7	1.8	17.8	5	68.2	Silt with sand	<30	540	620	Loamy	<30	210	290	0.22	
		0.5 m from the bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		1 m from the bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\*Air dose was measured using the survey meter MODEL3 of Ludlum Measurement Inc.

\*Sampling points are listed from north to south.

