

(News Release)  
The Results of Radioactive Material Monitoring of the Surface Water Bodies  
within Iwate Prefecture  
(February-March Samples)

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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 and headwaters, and coasts), etc.).

Samples taken from the surface water bodies of Iwate Prefecture during the period of February 4-March 5, 2013 have been measured as part of MOE's efforts to monitor radioactive materials; the results have recently been compiled and are released here.

The monitoring results of radioactive materials in surface water bodies carried out to date can be found at the following web page: <http://www.env.go.jp/jishin/rmp.html#monitoring>

1. Survey Overview

(1) Survey Locations

16 environmental reference points, etc. in the surface water bodies within Iwate Prefecture  
(Rivers: 14 locations, Coasts: 2 locations)

(2) Survey Method

- Measurement of concentrations of radioactive materials (radioactive cesium (Cs-134 and Cs-137), etc.) 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 (\* denotes the results of the previous survey (\*November-December 2012))

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

Cs-134 + Cs-137: Not detectable (ND) at any location (\* ND at any location)

<Reference>

Specification and Standards for Food, Food Additives, etc. in accordance with the Food Sanitation Act (Drinking Water) (Ministry of Health, Labour and Welfare Public Notice No.130, March 15, 2012)  
Radioactive cesium (total for Cs-134+Cs-137): 10Bq/kg

Target value for radioactive materials in tap water (management target for water supply facilities) (March 5, 2012; 0305 Notice No.1 from the Director of the Water Supply Division, Health Service Bureau, Ministry of Health, Labour and Welfare)

Radioactive cesium (total for Cs-134+Cs-137): 10Bq/kg

(2) Sediment (Lower detection limit: 10Bq/kg (dried mud))

Overall, the levels were around 500Bq/kg or below at most of the locations (coasts: 50Bq/kg or below), and have generally remained constant or had a declining tendency.

(Rivers)

Cs-134 + Cs-137: 19-530Bq/kg (dried mud) (\*ND-1,040Bq/kg (dried mud))

(Coasts)

Cs-134 + Cs-137: ND-39Bq/kg (dried mud) (\*ND-33Bq/kg (dried mud))

<Reference> Number of locations by radioactive cesium concentration (500Bq/kg)  
Numbers in ( ) denote results measured on the previous occasion.

	500 or below	501 -1,000	1,001 -1,500	1,501 -2,000	2,001 -2,500	2,501 -3,000	3,001 or more	Total
Rivers	13 (15)	1 (2)	0 (1)	0 (0)	0 (0)	0 (0)	0 (0)	14 (18)
Lakes and headwaters	2 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (2)

(3) Surrounding Environment (Lower detection limit: 10Bq/kg (dry))

(Rivers)

Cs-134 + Cs-137: 219-1,980Bq/kg (dry) (\*ND-17,400Bq/kg (dry))

Spatial dose: 0.08-0.19 $\mu$ Sv/h

(Annex for details)  
(Map attached)

#### Future Plans

MOE intends to continue to measure radioactive materials in water, sediment, etc. in rivers, lakes, etc. in FY2013, since concentrations of radioactive materials seem to show fluctuations, depending on locations, due to minor differences in sampling points or properties of samples of each survey.

ORiver: Water Quality Monitoring Results

(Annex)

Sampling point				Sampling date	Weather	Full depth m	General items					Concentration of radioactive material Bq/L			Remarks	
No.	Water body	Point	Municipality				Sampling depth m	Transparency cm	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137			
1	Okawa River	Prefectural border with Miyagi	Ichinosekishi City	2013/2/5	Sunny	0.30	0.0	51	18	22	6	<1	<1	<1		
2	K i t a k a S m a R i v e r	Kurosawagawa River	Kawaradabashi Bridge	2013/2/6	Cloudy	0.30	0.0	>100	17	2	1	<1	<1	<1		
3		Kitakamigawa River	Fujibashi Bridge	Oshushi City	2013/2/6	Snow	0.50	0.0	>100	18	10	4	<1	<1	<1	
4		Shiratorigawa River	Shiratoribashi Bridge	Oshushi City	2013/2/6	Snow	0.20	0.0	>100	18	<1	1	<1	<1	<1	
5		Koromogawa River	Koromogawabashi Bridge	Hiraizumicho Town	2013/2/6	Snow	0.20	0.0	>100	14	<1	1	<1	<1	<1	
6		Iwaigawa River Middle Reaches	Kaminohashi Bridge	Ichinosekishi City	2013/2/4	Snow	0.30	0.0	>100	22	2	2	<1	<1	<1	
7		Kitakamigawa River	Chitosebashi Bridge (Kozenji)	Ichinosekishi City	2013/2/5	Sunny	0.80	0.0	89	18	1	1	<1	<1	<1	
8		Sokeigawa River	Unadabashi Bridge	Ichinosekishi City	2013/2/5	Sunny	0.30	0.0	75	22	1	1	<1	<1	<1	
9		Sarusawagawa River	Kannonbashi Bridge	Ichinosekishi City	2013/2/5	Snow	0.30	0.0	>100	27	<1	0	<1	<1	<1	
10		Satetsugawa River	Kanzakibashi Bridge	Ichinosekishi City	2013/2/6	Snow	0.60	0.0	58	23	1	1	<1	<1	<1	
11		Senmayagawa River Upper Reaches	Miyatabashi Bridge	Ichinosekishi City	2013/2/5	Sunny	0.40	0.0	>100	18	<1	1	<1	<1	<1	
12		Kitakamigawa River	Kitakamigawabashi Bridge	Ichinosekishi City	2013/2/6	Sunny	0.20	0.0	>100	17	1	1	<1	<1	<1	
13		Kinomigawa River	Higuchibashi Bridge	Ichinosekishi City	2013/2/5	Sunny	0.50	0.0	88	25	3	2	<1	<1	<1	
14		Kimryugawa River	Tenjinbashi Bridge	Ichinosekishi City	2013/2/6	Snow	0.50	0.0	47	23	7	6	<1	<1	<1	

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

ORiver: Water Quality Monitoring Results

No.	Sampling point			Sampling date	Weather	Full depth m	General items			Concentration of radioactive material Bq/kg (dried mud)				Remarks	
	Water body	Point	Municipality				Mud sampling depth cm	Mud content %	Property	Radioactive iodine I-131	Cs-134	Radioactive cesium			Total
1	Okawa River	Prefectural border with Miyagi	Ichinosekishi City	2013/2/5	Sunny	0.30	5	84	Sand	<30	91	190	281		
2	K i t a k a m o g a w a R i v e r	Kurosawagawa River	Kawaradabashi Bridge	2013/2/6	Cloudy	0.30	2	81	Sand	<30	32	67	99		
3		Kitakamigawa River	Fujibashi Bridge	2013/2/6	Snow	0.50	3	67	Sand/silt	<30	28	52	80		
4		Shiratorigawa River	Shiratoribashi Bridge	Oshushi City	2013/2/6	Snow	0.20	3	86	Gravel/sand	<30	61	110	171	
5		Koromogawa River	Koromogawabashi Bridge	Hiraizumicho Town	2013/2/6	Snow	0.20	5	89	Gravel/sand	<30	69	120	189	
6	S m a k i n o s e k i s h i C i t y	Iwaigawa River Middle Reaches	Kaminohashi Bridge	2013/2/4	Snow	0.30	5	87	Sand	<30	33	60	93		
7		Kitakamigawa River	Chitosebashi Bridge (Kozenji)	Ichinosekishi City	2013/2/5	Sunny	0.80	3	87	Sand/gravel	<30	<10	19	19	
8		Sokeigawa River	Unadabashi Bridge	Ichinosekishi City	2013/2/5	Sunny	0.30	5	93	Sand	<30	54	96	150	
9		Sarusawagawa River	Kannonbashi Bridge	Ichinosekishi City	2013/2/5	Snow	0.30	5	88	Gravel/sand	<30	190	340	530	
10	R i v e r	Satetsugawa River	Kanzakibashi Bridge	2013/2/6	Snow	0.60	5	83	Sand/silt	<30	45	71	116		
11		Senmayagawa River Upper Reaches	Miyatabashi Bridge	Ichinosekishi City	2013/2/5	Sunny	0.40	5	91	Sand	<30	71	130	201	
12		Kitakamigawa River	Kitakamigawabashi Bridge	Ichinosekishi City	2013/2/6	Sunny	0.20	4	94	Gravel/sand	<30	12	16	28	
13		Kinomigawa River	Higuchibashi Bridge	Ichinosekishi City	2013/2/5	Sunny	0.50	2	81	Sand	<30	43	80	123	
14		Kinryugawa River	Tenjinbashi Bridge	2013/2/6	Snow	0.50	5	89	Sand/silt	<30	130	240	370		

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

ORiver: Water Quality Monitoring Results

Sampling point				Sampling date	Weather	Left bank					Right bank					Remarks			
No.	Water body	Point	Municipality			Property	Concentration of radioactive material Bq/kg (dry)				Air dose μSv/h	Property	Concentration of radioactive material Bq/kg (dry)				Air dose μSv/h		
							Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137	Total			Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137			Total	
1	Okawa River	Prefectural border with Miyagi	Ichinosekishi City	2013/2/5	Sunny	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
2	K i t a k a m i g a w a R i v e r	Kurosawagawa River	Kawaradabashi Bridge	2013/2/6	Cloudy	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
3		Kitakamigawa River	Fujibashi Bridge	Oshushi City	2013/2/6	Snow	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
4		Shiratorigawa River	Shiratoribashi Bridge	Oshushi City	2013/2/6	Snow	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
5		Koromogawa River	Koromogawabashi Bridge	Hiraizumicho Town	2013/2/6	Snow	Loamy/skeletal	<30	190	360	550	0.15	-	-	-	-	-	Unable to collect samples due to snow on the ground	
6		Iwaigawa River Middle Reaches	Kaminohashi Bridge	Ichinosekishi City	2013/2/4	Snow	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
7		Kitakamigawa River	Chitosebashi Bridge (Kozenji)	Ichinosekishi City	2013/2/5	Sunny	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
8		Sokeigawa River	Unadabashi Bridge	Ichinosekishi City	2013/2/5	Sunny	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
9		Sarusawagawa River	Kannonbashi Bridge	Ichinosekishi City	2013/2/5	Snow	Loamy	<30	680	1,300	1,980	0.12	Loamy/sandy	<30	250	480	730	0.12	Unable to collect samples due to snow on the ground
10		Satetsugawa River	Kanzakibashi Bridge	Ichinosekishi City	2013/2/6	Snow	Loamy/skeletal	<30	460	850	1,310	0.19	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
11		Sumiyagawa River Upper Reaches	Miyatabashi Bridge	Ichinosekishi City	2013/2/5	Sunny	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
12		Kitakamigawa River	Kitakamigawabashi Bridge	Ichinosekishi City	2013/2/6	Sunny	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
13		Kinomigawa River	Higuchibashi Bridge	Ichinosekishi City	2013/2/5	Sunny	-	-	-	-	-	-	Loamy/skeletal	<30	79	140	219	0.08	Unable to collect samples due to snow on the ground
14		Kinryugawa River	Tenjinbashi Bridge	Ichinosekishi City	2013/2/6	Snow	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground

• Samples for surrounding environment (soil) were generally collected from 5 points in 3m square in the river terrace, etc., and mixed. Depending on the site situation, factors, such as the area of sampling may be much smaller, may cause figures to vary significantly.  
 • Air dose was measured with a survey meter, TCS-171 or TCS-172 of Hitachi-Aloka Medical, Ltd.  
 • Sampling points for rivers are listed from north to south, and for different points along the river, from upstream to downstream.

### ○Coast: Water Quality Monitoring Results

Sampling point		Sampling date	Weather	Full depth	General items				Concentration of radioactive material Bq/L			Remarks
No.	Water body				Sampling depth m	Secchi disk depth m	塩分 ‰	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137	
1	Ofunatowan Bay (A)	2013/3/5	Sunny	19.0	0.5	7.5	28	4	1	<1	<1	<1
					18.0		29	7	2	<1	<1	<1
2	Hirotawan Bay	2013/2/26	Sunny	13.5	0.5	7.3	32	4	1	<1	<1	<1
					12.5		34	5	1	<1	<1	<1

• Sampling points are listed from north to south.

### ○Coast: Sediment Monitoring Results

Sampling point		Sampling date	Weather	Full depth	General items			Concentration of radioactive material Bq/kg (dried mud)				Remarks
No.	Water body				Mud sampling depth cm	Mud content %	Property	Radioactive iodine I-131	Cs-134	Radioactive cesium Cs-137 Total		
1	Ofunatowan Bay (A)	2013/3/5	Sunny	19.0	10	55	Silt	<30	10	29	39	
2	Hirotawan Bay	2013/2/26	Sunny	13.5	5	88	Sand	<30	<10	<10	-	

• Sampling points are listed from north to south.

