

## FY2016 Tokyo Metropolis Survey Results

[Outline of results]

### (1) Water

Rivers

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

Coastal areas

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

### (2) Sediments

Rivers

Cs-134: 4.3 - 43 Bq/kg (dry)

Cs-137: 27 - 210 Bq/kg (dry)

Coastal areas

Cs-134: 11 - 53 Bq/kg (dry)

Cs-137: 68 - 260 Bq/kg (dry)

### (3) Surrounding Environment

#### (a) Soil

Rivers

Cs-134: 41 - 140 Bq/kg (dry)

Cs-137: 340 - 790 Bq/kg (dry)

#### (b) Ambient dose rate

Rivers

0.04 - 0.09  $\mu$ Sv/h

# Tokyo River (Water) 1/1

	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks
	No.	Water area	Location	Municipality					General items						Activity concentration(Bq/L)				
									Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (FNU)	Cs-134	Cs-137	
Rivers	50	Arakawa River System	Arakawa River Lower Reaches	Kasai Bridge	Koto City/Edogawa City	2016/5/6	Rain	20.1	2.1	18.6	0.0	Grayish yellow	None	34	3,710	24	13	<0.88	<0.84
						2016/8/19	Sunny	29.0	0.9	27.8	0.0	Grayish yellow green	None	32	732	20	8	<0.77	<0.75
						2016/11/17	Sunny	11.5	2.1	15.3	0.0	Dark grayish yellow green	None	65	4,370	12	6.7	<0.68	<0.69
						2017/1/24	Sunny	3.0	1.3	7.1	0.0	Grayish yellow green	None	43	315	13	11	<0.63	<0.75
	51		Sumida River	Ryogoku Bridge	Chuo City/Sumida City	2016/5/6	Cloudy	23.9	2.5	21.0	0.0	Dark grayish yellow	Faint sewage	57	1,640	28	10	<0.66	<0.92
						2016/8/19	Sunny	33.0	1.9	27.6	0.0	Grayish greenish yellow	None	67	727	9	4.2	<0.90	<0.70
						2016/11/17	Sunny	15.3	2.7	16.5	0.0	Dark grayish yellow green	None	85	3,190	8	4.2	<0.59	<0.70
						2017/1/24	Sunny	6.0	2.1	10.1	0.0	Dark grayish yellow green	None	>100	3,450	2	2.5	<0.78	<0.88



# Tokyo River (Surrounding Environment) 1/1

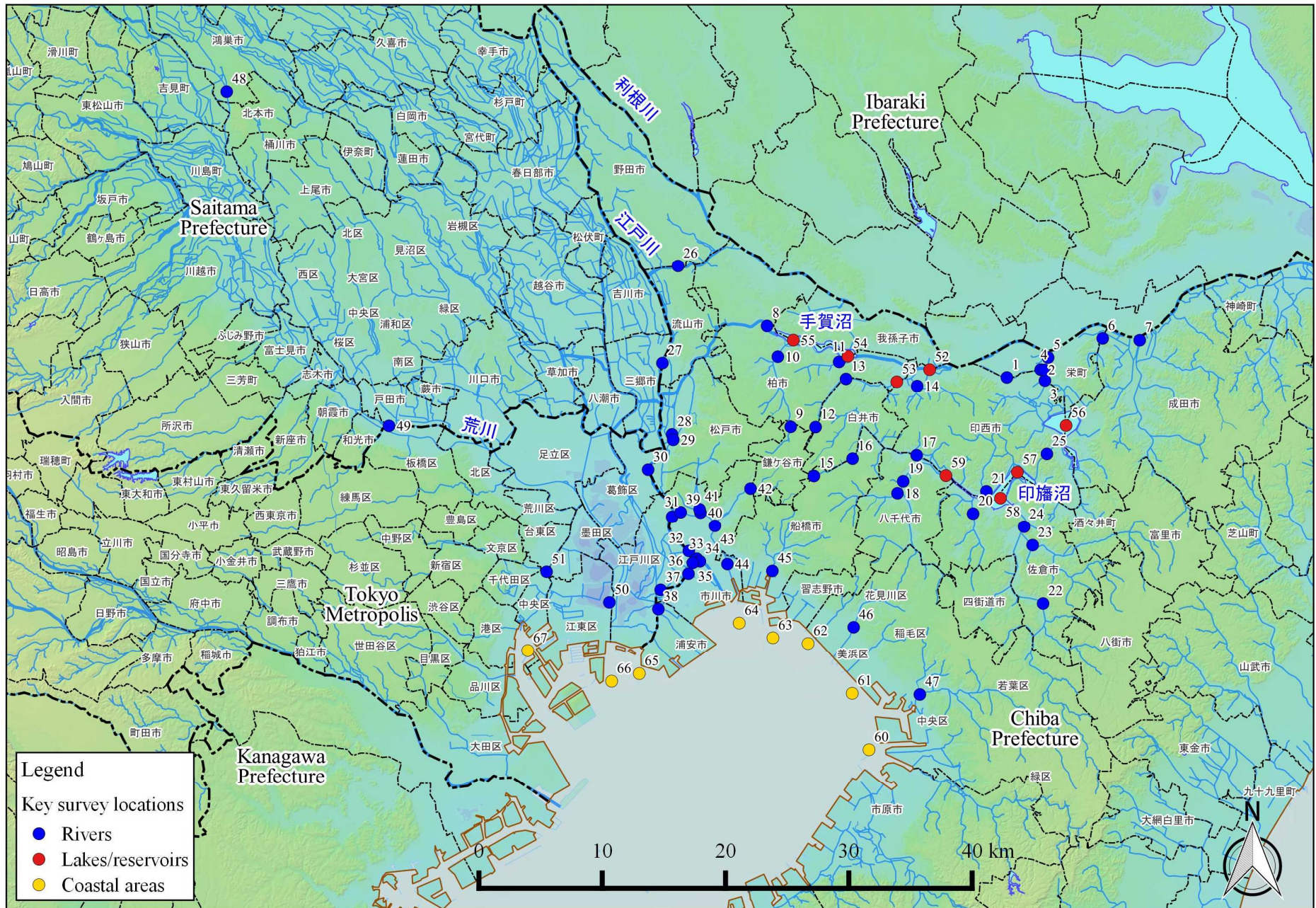
R i v e r s	Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)													Remarks					
	No.	Water area	Location	Municipality				Left bank						Right bank												
								Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Activity concentration [Bq/kg(dry)]				Air Dose (μSv/h)				
											Radioactive cesium							Radioactive cesium								
			Cs-134	Cs-137	Total				Cs-134	Cs-137	Total															
50	Arakawa River System	Arakawa River Lower Reaches	Kasai Bridge	Koto City/Edogawa City	2016/5/6	Rain	20.1	Dark brown	Faint earth	Loamy	140	790	930	0.07	Dull yellowish brown	Faint earth	Loamy	69	350	419	0.08					
					2016/8/19	Sunny	29.0	Dull yellowish brown	Faint earth	Loamy	81	490	571	0.06	Dark brown	Faint earth	Loamy	83	420	503	0.08					
					2016/11/17	Sunny	11.5	Dark brown	Faint earth	Loamy	91	570	661	0.06	Dull yellowish brown	Faint earth	Loamy	79	450	529	0.09					
					2017/1/24	Sunny	3.0	Dull yellowish brown	Faint earth	Loamy	99	610	709	0.06	Dull yellowish brown	Faint earth	Loamy	41	340	381	0.09					
51	Sumida River	Ryogoku Bridge	Chuo City /Sumida City	2016/5/6	Cloudy	23.9	-	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	0.06	Soil not exposed			
				2016/8/19	Sunny	33.0	-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	0.05	Soil not exposed	
				2016/11/17	Sunny	15.3	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	0.04	Soil not exposed
				2017/1/24	Sunny	6.0	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	0.05	Soil not exposed

# Tokyo Coastal (Water) 1/1

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks
	Water area	Surface layer	Deep layer					General items						Activity concentration (Bq/L)				
								Water temperature (°C)	Sampling depth (m)	Color	Odor	Secchi disk depth (m)	Salinity (‰)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium		
													Cs-134	Cs-137				
65	Approx. 1 km offshore of Kyu-Edogawa River Estuary	Offshore of Kyu-Edogawa River Estuary	Surface layer	2016/5/28	Cloudy	23.5	6.6	21.1	0.5	Dark grayish yellow green	None	1.9	24.9	2	0.6	<0.77	<0.75	
			Deep layer					20.6	5.6	-	None		27.9	2	1.0	<0.71	<0.75	
			Surface layer	2016/6/14	Cloudy	25.4	6.9	22.7	0.5	Dark grayish yellow	None	1.7	20.0	3	1.6	<0.68	<0.88	
			Deep layer					21.6	5.9	-	None		27.8	1	0.3	<0.72	<0.63	
			Surface layer	2016/7/29	Sunny	29.0	5.8	28.1	0.5	Grayish yellow	None	1.5	19.1	7	6.1	<0.60	<0.88	
			Deep layer					24.7	4.8	-	None		26.5	6	5.0	<0.67	<0.80	
			Surface layer	2016/8/24	Cloudy	28.1	5.6	25.8	0.5	Grayish yellow	None	0.6	6.6	19	12	<0.60	<0.55	
			Deep layer					25.9	4.6	-	None		19.5	11	7.0	<0.72	<0.55	
			Surface layer	2016/9/14	Cloudy	24.7	5.7	25.1	0.5	Grayish greenish yellow	None	1.5	16.4	7	3.7	<0.66	<0.75	
			Deep layer					23.8	4.7	-	Faint hydrogen sulfide		28.3	2	1.3	<0.77	<0.84	
	Surface layer	2016/11/25	Sunny	11.0	6.2	14.8	0.5	Dark grayish yellowish green	None	3.5	26.8	2	2.1	<0.72	<0.75			
	Deep layer					15.7	5.2	-	None		29.6	6	4.8	<0.58	<0.63			
	Surface layer	2017/2/22	Cloudy	8.0	5.9	9.6	0.5	Dark grayish greenish yellow	None	2.0	30.0	5	2.4	<0.76	<0.69			
	Deep layer					9.4	4.9	-	None		30.5	5	2.1	<0.68	<0.55			
	Surface layer	2016/5/28	Cloudy	23.7	5.4	21.7	0.5	Dark grayish yellow green	None	1.8	13.2	4	2.2	<0.50	<0.70			
	Deep layer					20.8	4.4	-	None		27.5	<1	0.5	<0.78	<0.70			
	Surface layer	2016/6/14	Cloudy	25.0	5.6	23.7	0.5	Grayish yellow green	None	1.3	11.3	5	2.3	<0.56	<0.55			
	Deep layer					21.6	4.6	-	None		28.0	5	2.4	<0.78	<0.70			
	Surface layer	2016/7/29	Sunny	28.5	5.6	27.0	0.5	Dark grayish greenish yellow	None	1.6	20.0	7	6.7	<0.62	<0.54			
	Deep layer					24.5	4.6	-	None		27.2	3	2.2	<0.62	<0.70			
Surface layer	2016/8/24	Sunny	27.8	5.4	26.3	0.5	Grayish yellow	None	0.7	2.9	17	13	<0.76	<0.75				
Deep layer					26.2	4.4	-	None		19.0	8	4.1	<0.73	<0.75				
Surface layer	2016/9/14	Cloudy	24.5	5.7	24.9	0.5	Grayish greenish yellow	None	1.0	11.3	8	4.4	<0.65	<0.84				
Deep layer					23.5	4.7	-	Faint hydrogen sulfide		29.0	3	1.5	<0.77	<0.55				
Surface layer	2016/11/25	Sunny	11.0	5.9	14.0	0.5	Dark grayish yellowish green	None	3.0	23.9	3	3.2	<0.67	<0.80				
Deep layer					16.1	4.9	-	None		29.8	4	3.2	<0.75	<0.88				
Surface layer	2017/2/22	Cloudy	8.5	5.8	9.4	0.5	Dark grayish yellow green	None	1.8	27.6	5	3.0	<0.54	<0.96				
Deep layer					9.6	4.8	-	None		30.5	8	2.7	<0.79	<0.80				
67	Southwestern area of Toyosu Wharf	Offshore of Sumida River Estuary	Surface layer	2016/5/28	Cloudy	24.5	10.8	22.0	0.5	Yellowish black	None	1.3	19.4	3	1.4	<0.85	<0.80	
			Deep layer					19.3	9.8	-	None		29.0	2	0.6	<0.82	<0.80	
			Surface layer	2016/8/23	Cloudy	30.8	10.5	26.1	0.5	Light grayish yellow	None	0.5	5.5	20	23	<0.60	<0.69	
			Deep layer					24.9	9.5	-	None		27.5	1	0.8	<0.83	<0.80	
			Surface layer	2016/11/25	Sunny	11.5	11.8	15.7	0.5	Dark grayish yellow green	None	3.2	25.6	2	2.0	<0.73	<0.84	
			Deep layer					17.0	10.8	-	None		30.3	8	5.9	<0.68	<0.75	
			Surface layer	2017/2/22	Cloudy	8.5	12.0	9.8	0.5	Dark grayish yellow green	None	2.0	29.3	5	2.9	<0.77	<0.99	
			Deep layer					9.8	11.0	-	None		30.4	5	2.7	<0.68	<0.69	

# Tokyo Coastal (Sediment) 1/1

		Location		Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment																Activity concentration [Bq/kg(dry)]			Remarks	
No.	Water area	Sediment temperature (°C)	Sample length (cm)					Color	Odor	General items						Grain size distribution(%)						Sediment content (%)	Density (g/cm <sup>3</sup> )	Property	Radioactive cesium			
										Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Co-134	Co-137	Total								
C o a s t a l  a r e a s	65	Approx. 1 km offshore of Kyu-Edogawa River Estuary	Offshore of Kyu-Edogawa River Estuary	2016/5/28	Cloudy	23.5	6.6	20.9	10	Black	Faint sewage	0.0	0.0	0.0	0.2	0.2	1.3	73.6	24.8	36.5	2.619	Silt	39	230	269			
				2016/6/14	Cloudy	25.4	6.9	21.9	8	Black	None	0.0	0.0	0.0	0.0	0.5	15.0	65.3	19.2	45.0	2.607	Silt	44	260	304			
				2016/7/29	Sunny	29.0	5.8	24.0	6	Black	Faint hydrogen sulfide	0.0	0.0	0.0	0.1	0.5	16.0	65.8	17.6	44.6	2.583	Silt	38	230	268			
				2016/8/24	Cloudy	28.1	5.6	24.3	8	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.0	0.3	11.2	66.3	22.2	42.9	2.570	Silt	35	230	265			
				2016/9/14	Cloudy	24.7	5.7	24.3	6	Olive black	None	0.0	0.0	0.0	0.1	0.2	4.3	77.4	18.0	36.3	2.547	Silt	53	210	263			
				2016/11/25	Sunny	11.0	6.2	16.0	10	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.3	0.1	3.1	70.6	25.9	34.5	2.509	Silt	40	210	250			
	2017/2/22	Cloudy	8.0	5.9	9.5	6	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.1	0.2	4.3	71.6	23.8	41.5	2.546	Silt	34	230	264						
	2016/5/28	Cloudy	23.7	5.4	21.0	7	Black	Faint sewage	0.0	0.0	0.0	0.0	0.3	0.6	73.9	25.3	38.0	2.632	Silt	30	180	210						
	2016/6/14	Cloudy	25.0	5.6	21.9	8	Olive black	None	0.0	0.0	0.0	0.1	0.1	0.7	75.2	23.9	38.1	2.615	Silt	32	170	202						
	2016/7/29	Sunny	28.5	5.6	25.1	6	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.0	0.2	1.0	76.4	22.4	42.3	2.598	Silt	32	160	192						
	2016/8/24	Sunny	27.8	5.4	24.9	8	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.1	0.2	1.8	76.1	21.8	45.5	2.618	Silt	20	160	180						
	2016/9/14	Cloudy	24.5	5.7	24.8	5	Olive black	None	0.0	0.0	0.0	0.3	0.4	0.7	75.3	23.4	40.5	2.597	Silt	21	150	171						
	2016/11/25	Sunny	11.0	5.9	16.8	8	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.1	0.2	0.4	75.9	23.5	39.6	2.605	Silt	30	220	250						
	2017/2/22	Cloudy	8.5	5.8	9.3	8	Olive black	Faint sewage	0.0	0.0	0.0	0.1	0.2	0.6	85.0	14.2	40.5	2.558	Silt	19	140	159						
	2016/5/28	Cloudy	24.5	10.8	18.0	12	Black	Medium hydrogen sulfide	0.0	0.0	0.0	0.0	0.2	1.3	71.6	26.9	24.4	2.619	Silt	17	72	89						
	2016/8/23	Cloudy	30.8	10.5	21.5	10	Black	Medium hydrogen sulfide	0.0	0.0	0.0	0.0	0.2	1.1	71.2	27.6	21.6	2.585	Silt	13	68	81						
	2016/11/25	Sunny	11.5	11.8	12.3	12	Olive black	Medium hydrogen sulfide	0.0	0.0	0.0	0.1	0.1	0.8	72.1	26.9	22.0	2.610	Silt	19	110	129						
	2017/2/22	Cloudy	8.5	12.0	11.0	10	Black	Medium hydrogen sulfide	0.0	0.0	0.0	0.1	0.1	0.9	71.0	27.9	21.7	2.572	Silt	11	73	84						



Survey Locations (Chiba,Saitama,Tokyo Prefectures)