

Fatal and non-fatal accidents in water supply/sewage construction work in Japan in 1999-2022

water supply/sewage construction work industry Code No.030110

Type of accidents in water supply/sewage construction work in 1999-2022

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
fall from height	216	170	145	128	137	120	101	110	91	78	65	65	62	61	52	57	44	55	44	48	50	35	42	49	2,025
falling to same level	106	97	81	64	54	60	56	55	44	62	40	45	33	42	28	29	32	26	31	35	34	15	32	25	1,126
crash	65	51	35	30	21	30	26	35	22	16	17	21	17	15	16	15	23	14	8	14	11	15	11	12	540
struck by flying or falling object	215	201	169	141	142	125	105	94	73	89	66	68	68	68	51	41	42	34	38	28	22	23	33	22	1,958
collapse	144	119	114	96	97	78	73	68	57	70	46	39	37	46	46	42	50	30	25	36	24	26	27	27	1,417
crashed by	143	125	100	103	89	92	66	68	71	60	52	40	46	48	31	36	30	32	33	23	30	36	19	28	1,401
caught in/between	348	282	254	256	218	204	171	155	136	107	94	108	78	73	95	80	72	69	67	49	58	59	61	60	3,154
cut	51	45	49	55	33	38	31	24	30	32	27	21	19	28	29	18	17	19	20	17	12	11	17	8	651
injury to the sole of the foot	3	4	2	2		2	2	1		1	1	2				2		1				1			24
drown	1		2							6	1		4	2				1				1			18
contact to high/low-	14	10	6	9	7	7	8	6	7	3	1	10	3	10	4	4	5	3	2	6	7	8	6	7	153

machine	312	242	199	229	186	191	134	140	126	112	100	102	86	93	91	85	64	63	51	42	47	47	48	50	2,840	
metal manufacturing machine	25	24	18	24	25	14	19	10	15	10	10	15	11	13	17	13	9	13	6	7	5	5	11	5	324	
general machine	21	24	27	19	16	14	17	11	11	10	11	11	10	9	7	5	7	8	7	5	7	10	8	8	283	
mobile silviculture machine																										
crane	46	45	33	28	36	34	34	26	22	17	23	21	22	15	15	15	26	12	19	13	15	13	12	9	551	
conveying machine	116	103	97	110	93	81	68	67	68	56	37	42	48	41	37	38	34	35	30	34	38	34	29	32	1,368	
vehicle	41	24	25	20	30	21	14	17	18	17	6	12	2	5	14	8	7	8	6	13	11	9	8	8	344	
pressure vessel	1			1				2			1			2		1		2				1			11	
chemical facilities			1																						1	
welding equipment		2	1		2			1				1											1	1	1	10
kiln, caldron																										
electric equipment	3		2	1	1	1	3						1					1	1		1			1	16	
human power machine, tools	32	29	32	32	27	31	18	21	14	19	14	6	17	11	9	12	8	4	13	6	5	9	9	7	385	
tools	80	69	63	42	49	43	46	41	40	40	18	20	24	30	25	19	18	15	22	11	24	12	11	17	779	
other equipments, facilities	14	19	12	8	9	7	9	2	12	5	5	5	9	7	5	5	9	6	8	4	2	5	7	4	178	

cableway																									
simple skyline yarding equipment																									
other powered crane			2		1		1		2	1					2	1	1		1		1			1	14
truck			87		85		62	62	66	52	34	40	48	39	35	37	34	32	30	30	35	28	29	30	895
forklift					1		1					1									1		1	5	
railway equipment			1		1		1	1			1										2		1	8	
conveyor			1		2			1									1			1				6	
loader			3		1		2		1		1					1								9	
straddle carrier							1																	1	
rough terrain hauler			1		2			2		3	1				1				1		2			13	
other powered conveying machines			4		1		1	1	1	1		1		2	1		2		3	2	1			21	
cars, bus, motorcycle			25		30		13	17	18	17	6	12	1	5	14	8	7	8	6	13	11	9	8	8	236
railway vehicle																									
other vehicles							1						1											2	
boiler								1						1							1			3	
pressure vessel																									
other pressure vessels								1			1			1		1		2						6	

ladder			34		19		19	19	14	21	10	9	9	15	16	6	7	7	8	6	13	4	6	8	250
slinging tool			17		16		18	16	16	11	7	3	8	11	2	4	6	2	8	4	5	2	3	6	165
other tools			12		14		9	6	10	8	1	8	7	4	7	9	5	6	6	1	6	6	2	3	130
other equipment, facilities			12		9		9	2	12	5	5	5	9	7	5	5	9	6	8	4	2	5	7	4	130
scaffolding			9		5		7	4	4	1	1	3	2	1	3	4	2		4	2	2	4	2	2	62
timbering			38		18		10	7	15	14	17	5	6	4	7	4	9	2	2	3		2	3	2	168
stairs, landing stage			7		10		6	6	2	5	5	1	2	8	5	1	2	5	2	6	4	4	3	5	89
opening			9		14		9	10	10	9	8	5	2	6	7	5	4	8	4	8	6	3	4	3	134
roof, beam, haze, crossbeam, principal rafter			2		5		2	2	1	1	1	1	4		1			2	3	2	1	1	2	3	34
working platform, boot board			18		17		7	15	9	17	8	7	5	7	6	8	6	4	4	4	2	6	4	4	158
passage			20		17		21	25	13	17	14	19	8	14	10	7	12	11	18	17	11	8	17	9	288
building, establishment			48		33		34	38	26	29	19	21	13	22	16	17	12	12	10	17	14	10	14	14	419
other temporary buildings, establishments			23		28		20	19	11	10	9	14	10	8	5	7	12	8	9	10	4	6	9	4	226
explosive substance																									
inflammable			3		1		1		1	1				1			2					1			11

9 workers or less	697	641	537	514	474	466	391	385	356	351	261	264	233	259	234	218	204	179	166	157	133	143	157	127	7,547
10-29	580	439	410	366	329	271	249	230	183	185	155	150	129	133	130	113	106	114	102	109	107	91	95	110	4,886
30-49	91	94	62	61	45	64	31	33	34	39	26	22	23	29	30	24	20	16	19	24	24	18	23	18	870
50-99	41	29	29	24	21	12	13	16	4	8	7	14	10	3	2	8	10	6	10	8	6	9	10	9	309
100-299	22	12	12	10	8	5	6	4	3	3	4	5	1	4	7	1	2	1	1	1	3	5	1	3	124
300 workers or more	1	1	1		3		1	1	3			2	1				1					2	1		18
total	1,432	1,216	1,051	975	880	818	691	669	583	586	453	457	397	428	403	364	343	316	298	299	273	268	287	267	13,754

Month of fatal and non-fatal accidents in water supply/sewage construction work in 1999-2022

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
January	139	146	107	88	81	103	92	56	63	73	42	47	39	48	41	31	39	31	31	39	30	19	25	26	1,436
February	151	124	115	113	115	81	73	93	87	86	57	56	42	45	41	43	33	30	32	28	23	29	18	20	1,535
March	151	136	112	83	101	89	69	56	51	61	44	48	43	42	38	31	33	25	22	23	17	25	20	22	1,342
April	116	53	48	58	44	44	40	43	31	27	21	28	25	26	29	25	14	21	16	12	18	11	21	16	787
May	77	60	50	53	50	37	40	40	28	32	27	27	25	19	18	21	19	17	27	22	15	19	16	21	760
June	80	89	78	65	52	51	39	29	27	27	30	36	24	25	24	23	22	18	25	20	12	21	24	24	865
July	108	87	81	57	68	57	43	44	50	33	37	18	28	29	25	39	35	24	20	28	31	16	22	31	1,011
August	121	88	84	69	69	55	44	53	40	51	40	27	40	45	27	23	28	24	23	22	21	36	25	19	1,074
September	105	89	86	93	59	72	58	44	30	50	40	31	30	39	36	20	29	25	19	24	20	23	24	20	1,066
October	120	119	100	95	84	78	66	62	50	61	40	49	36	37	36	41	29	29	28	30	30	28	26	18	1,292

November	134	107	97	114	85	73	81	66	65	37	46	58	36	42	46	42	35	36	28	29	28	20	29	27	1,361
December	130	118	93	87	72	78	46	83	61	48	29	32	29	31	42	25	27	36	27	22	28	21	37	23	1,225
total	1,432	1,216	1,051	975	880	818	691	669	583	586	453	457	397	428	403	364	343	316	298	299	273	268	287	267	13,754

Prefecture of fatal and non-fatal accidents in water supply/sewage construction work in 1999-2022

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
Hokkaido	71	70	59		40		22	29	22	15	18	15	16	10	17	20	10	19	17	15	13	13	18	15	544
Aomori	16	16	20		8		8	10	2	13	8	9	7	8	7	3	3	5	4	5	4	1	2	8	167
Iwate	17	26	16		16		11	9	11	7	4	7	9	4	7	3	5	7	3	5	13	6	6	3	195
Miyagi	31	17	16		18		5	11	10	10	8	8	10	17	13	11	9	12	3	5	8	8	11	10	251
Akita	15	17	18		18		16	6	6	10	6	4	5	7	5	5	10	2	6	2	7	5	6	5	181
Yamagata	17	13	15		8		18	21	16	6	3	8	6	5	8	4	8	7	11	6	5	7	1	3	196
Fukushima	29	24	19		14		12	9	11	11	7	7	8	10	7	11	6	6	6	5	7	6	2	5	222
Ibaraki	39	24	34		25		15	17	20	19	18	11	12	20	18	10	13	7	13	6	8	6	1	7	343
Tochigi	25	18	11		12		8	5	8	8	5	9	3	2	2	4	2	2	5	1	7	1	5	3	146
Gunma	36	38	18		27		19	9	11	13	15	10	6	10	6	3	5	3	3	9	3	9	6	2	261
Saitama	49	48	29		37		28	22	20	25	17	20	10	17	20	12	23	15	14	16	12	16	9	7	466
Chiba	40	36	35		26		22	30	22	27	21	27	18	14	26	18	13	4	9	14	12	12	9	11	446
Tokyo	86	68	53		58		54	63	36	60	33	41	34	54	52	40	40	30	40	29	20	25	25	25	966
Kanagawa	80	62	49		46		46	54	50	35	20	29	37	24	19	18	17	25	17	23	13	24	17	19	724

Tokushima	2	1	3		2		6	4	6	2	2	1			2	1	1		2		2		2	1	40
Kagawa	8	2	7		2		12	3	3	6	1	2	6	3	2	4	1		2	4	1	2	5	1	77
Ehime	28	22	30		11		14	10	11	17	6	10	9	3	6	5	5	10	3	3	2	1	6	3	215
Kochi	18	11	5				3	7	6	2	1	1	4	5	3	5	3	2	1	1	6	1	4		89
Fukuoka	52	55	62		49		38	31	37	35	24	22	20	15	20	20	20	25	9	10	9	13	23	7	596
Saga	5	8	3		11		8	1	6	3	4	7	2	4	1	7	8	1	2	6		2	3	3	95
Nagasaki	30	16	10		15		6	5	9	13	12	10	1	10	5	8	8	6	4	5	2	2	5	7	189
Kumamoto	19	16	15		18		7	6	5	4	4	6	6	10	7	4		4	4	4	2	3	1	2	147
Oita	22	13	8		12		8	11	11	6	1	7	3	11	3	4	5	5	3	2	4	6	1	3	149
Miyazaki	13	12	7		4		4	6		2		2	2	5	1	3		3	2	1	4	3	3	1	78
Kagoshima	14	12	10		10		5	5	10	7	4	7	2	5	9	5	3	5	5	7	2	1	4	4	136
Okinawa	5	1	1		5		3	5		5	2	3	2	3	3	2	3	1	2	3	3	4	6	1	63
total	1,432	1,216	1,051	975	880	818	691	669	583	586	453	457	397	428	403	364	343	316	298	299	273	268	287	267	13,754

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more.

Data of 2022 year do not include Covid-19 cases. Data of 2020 & 2021 year include Covid-19 cases. Fatal and non-fatal data are same situation.

Data of 2011 year include fatal and non-fatal accidents caused by Great East Japan Earthquake in 2011.

Data sources: <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.html> (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2022e_industry.html

=====

Fatal accidents in water supply/sewage construction work in Japan in 1999-2022

water supply/sewage construction work industry Code No.030110

Type of fatal accidents in water supply/sewage construction work in 1999-2022

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
fall from height	5	5	1	5	7	8	1	3	2	1	2		2		2	1		1	2	1	3	1	2	2	57
falling to same level	3	3	3	1	4		2		1	1	2						2				1		1	1	25
crash	1		1		1																				3
struck by flying or falling object	4	4	1		2	1	2	2	3	1	2		1		1			1					1		26
collapse	24	8	12	8	12	7	1	3	8	8	4	4	1	6	3	4	4	1	2	2	5	4	3	2	136
crashed by	4	5	4	1	1	4	1	4	3	3	1	2	2	1			1	1	3		2	2		1	46
caught in/between	10	1	10	11	3	4	3	4	2	4	2	5			1	2	2		1	1		1	1		68
cut																									
injury to the sole of the foot																									
drown			1			1	1			6			4					1					1		15
contact to high/low-temperature		1	1					1				2													5
contact to harmful substance	1		1							5		1			1	2	1						1		13

electric shock	1																							1	
explosion																								2	2
burst		1	1																						2
fire																									
traffic accident (public road)	9	4	3	5	4		1	1	4	2	2	1	1		1	2		1			1	2			44
traffic accident (others)			1																						1
reaction to motion/improper motion																									
others									1				4												5
unclassifiable																									
total	62	32	40	31	34	25	12	18	24	31	15	15	15	7	9	11	10	6	8	4	12	12	8	8	449

Causal agents (large) of fatal accidents in water supply/sewage construction work in 1999-2022

Causal (L) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
machine	15	8	9	6	10	6	5	8	4	9	4	7	3	1	2	1	4	2	2		1	3	2		112
crane, conveying machine	13	8	11	12	5	2	4	2	7	3	3	1	1		1	3	1	1	3	1	3	2	2	2	91
other equipment	2	3	3		2	2	1	3	2	1	1			1	1			2						1	25

temporary buildings, establishments	8	5	4	6	4	9	1	1	1	4	3		2			2	1		1	1	3	1	1		58
substance, material	4	1	1	2	1				1	1						2	1					2		2	18
load	1				1							1													3
environment	19	7	12	5	11	6	1	4	9	13	4	6	9	5	5	3	3	1	2	2	5	4	3	3	142
others																									
total	62	32	40	31	34	25	12	18	24	31	15	15	15	7	9	11	10	6	8	4	12	12	8	8	449

Causal agents (middle) of fatal accidents in water supply/sewage construction work in 1999-2022

Causal (M) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
engine										3															3
power transmission mechanism																									
woodworking machine																									
construction machine	15	8	9	5	9	6	5	8	4	6	4	6	3	1	2	1	4	2	2		1	3	2		106
metal manufacturing machine				1																					1
general machine					1							1													2
mobile silviculture machine																									
crane		1	4	1	1				1							1	1		1	1	1		1	1	15

300 workers or more		1				1																		2	
total	62	32	40	31	34	25	12	18	24	31	15	15	15	7	9	11	10	6	8	4	12	12	8	8	449

Month of fatal accidents in water supply/sewage construction work in 1999-2022

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
January	2	4	5	2	6	5		1	3	5	1	1	1	1	1	1	1	2	1	1		1	1	2	48
February	10	4	3	1	6	2	2		6	1	4	3		1		2			1	1	2	3	1	1	54
March	3	3	2	2	2	1		1	1	3			9	2		1	2			1	1		2		36
April	10	2	4	1	3	1	3	1	1	1	1		1			1		2	1		1	3			37
May	2	3	2	5	4			1		1	1			2	2	1		1	2		1	1		1	30
June		2	3	2	2	2	1		2	1	1			1			1			1	2	1	1		23
July	7	1	3		5	2		1	2	1		1				1	1		1					1	27
August	4	4	3	1	1	2		1	1	6	1	2	1			1	1					2	1		32
September	5	2	1	2	1	3		7	2	4	2						1	1	1				1		33
October	5	1	4	6		4	3	4	3	2	2	5	3		3	1	2				3	1			52
November	3	4	2	4	3	1			1	2	1	2			1	1	1		1						27
December	11	2	8	5	1	2	3	1	2	4	1	1			2	1					2		1	3	50
total	62	32	40	31	34	25	12	18	24	31	15	15	15	7	9	11	10	6	8	4	12	12	8	8	449

Prefecture of fatal accidents in water supply/sewage construction work in 1999-2022

Saga			1			1						2			1		1						6		
Nagasaki	1								1		1			1								1		5	
Kumamoto	2				3										1						1	1		1	9
Oita	1	1	1		1								1			1			1						7
Miyazaki			2																		1				3
Kagoshima	3				1		1		1	1	1				1	1								1	11
Okinawa	1					2		1			1														5
total	62	32	40	31	34	25	12	18	24	31	15	15	15	7	9	11	10	6	8	4	12	12	8	8	449

Data sources: <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.html> (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2022e_industry.html