Fatal and non-fatal accidents in mining in Japan in 1999-2022

mining industry Code No.02

Type of accidents in mining 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	124	109	116	80	94	79	100	84	81	75	77	59	62	52	65	81	64	55	58	67	61	66	82	53	1,844
falling to same level	57	49	45	30	36	22	32	32	26	29	28	21	33	31	29	33	21	24	26	29	29	23	27	42	754
crash	40	33	25	33	19	18	23	24	23	6	11	18	11	6	14	8	12	10	8	17	10	7	9	9	394
struck by flying or falling object	68	67	64	50	40	25	29	45	28	32	23	26	20	17	23	23	16	16	14	14	14	18	9	12	693
collapse	22	21	20	18	14	10	15	9	15	7	4	7	6	7	2	5	7	3	8	5	6	6	1	4	222
crashed by	45	31	29	24	28	19	26	29	18	15	12	23	9	9	11	9	11	8	13	14	12	11	11	8	425
caught in/between	121	126	115	87	95	97	91	73	85	61	50	43	51	55	67	62	46	46	48	40	41	39	48	43	1,630
cut	8	10	13	16	3	8	3	6	7	5	5	1	1	5	4	5	3	3	8	6	5	6	1	5	137
injury to the sole of the foot	3	1	2		1		1		2							1			1	1	1				14
drown		1			1	2		1					1		1	1		1							9
contact to high/low-	18	7	8	4	7	7	8	1	3	1	1	2	2		2		2	3	4	1	4	6	2		93

temperature																									
contact to harmful substance	2		1		1					1		1				2			2	2	1	1		1	15
electric shock		2	2			2	1		1																8
explosion	3		4		2							1	1	2					1	2					16
burst		2		1	3			1							2							1	3		13
fire		1			5		1									1	1							1	10
traffic accident (public road)	8	13	14	9	5	3	5	5	7	3	7	1	5	2	6	2	7	6	7	4	3	2	5	4	133
traffic accident (others)	1		1	2		1		1				1		1	1	1	2								12
reaction to motion/improper motion	35	30	35	15	16	25	18	10	11	13	11	12	14	10	11	9	13	8	9	11	16	13	17	14	376
others	2	5		2	2	1	2	1	3	1	2	2	2		1		4	1	2	1			1	2	37
unclassifiable		2	1													1									4
total	557	510	495	371	372	319	355	322	310	249	231	218	218	197	239	244	209	184	209	214	203	199	216	198	6,839

Causal agents (large) of fatal and non-fatal accidents in mining 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	118	101	139	81	72	71	92	71	81	48	46	51	39	42	59	47	42	37	48	48	33	52	40	38	1,496

crane, conveying machine	124	142	118	112	114	98	100	102	85	82	86	57	62	67	79	76	74	69	73	62	68	65	74	61	2,050
other equipment	72	59	45	43	49	34	44	37	31	31	23	20	23	17	29	21	19	17	20	19	28	14	27	19	741
temporary buildings, establishments	91	68	70	41	49	44	49	45	45	32	33	38	39	24	36	53	35	29	32	45	41	26	38	38	1,041
substance, material	79	61	63	51	38	34	39	35	37	32	15	21	18	20	13	17	9	20	15	19	13	10	12	19	690
load	9	9	8	1	5	4	4	2	6	4	5	5	5		2	1	2		2	1	4	3	3	2	87
environment	49	56	39	32	33	30	21	25	17	16	16	19	26	18	17	23	21	7	15	13	10	21	11	15	550
others	15	14	13	10	12	4	6	5	8	4	7	7	6	9	4	6	7	5	4	7	6	8	11	6	184
total	557	510	495	371	372	319	355	322	310	249	231	218	218	197	239	244	209	184	209	214	203	199	216	198	6,839

Causal agents (middle) of fatal and non-fatal accidents in mining 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				1			1	2	2					2						1					9
power transmission mechanism	11	9	10	7	6	5	8	6	7	6	1	1	5	3	6	5	7	7	4	4	3	6	3	4	134
woodworking machine		5	3	5	2	2	2		2		1	1	2	1		3	1	1		1	1	1			34

construction machine	69	48	80	35	42	36	56	36	35	24	30	33	22	24	32	27	23	18	25	29	22	28	29	25	828
metal manufacturing machine	2	2	2	5	2	5		3	2	3	1		2	2	5	2	1	1	1	1		1		1	44
general machine	36	37	44	28	20	23	25	24	33	15	13	16	8	10	16	10	10	10	17	12	7	16	8	8	446
mobile silviculture machine																			1						1
crane	7	9	12	12	3	2	3	6	9	5	2	5	7	3	2	8	5	5	5	1	6	8	5	4	134
conveying machine	111	125	100	97	104	94	90	91	72	73	84	50	52	61	75	65	65	60	65	58	58	54	62	55	1,821
vehicle	6	8	6	3	7	2	7	5	4	4		2	3	3	2	3	4	4	3	3	4	3	7	2	95
pressure vessel							1					1					1			1					4
chemical facilities							1																		1
welding equipment	6	1	1	1	1		2	1			1		1		1	1						2	1	2	22
kiln, caldron	1					1			1								1								4
electric equipment		4	1			4	1		1			1		2		1			1				1		17
human power machine, tools	30	17	18	14	9	7	8	13	7	7	5	5	6	3	7	8	6	6	5	4	7	2	3	2	199
tools	25	18	18	21	18	14	24	14	14	17	11	6	8	9	11	7	8	8	12	13	12	8	19	11	326
other equipments,																									

facilities	10	19	7	7	21	8	7	9	8	7	6	7	8	3	10	4	3	3	2	1	9	2	3	4	168
temporary buildings, establishments	91	68	70	41	49	44	49	45	45	32	33	38	39	24	36	53	35	29	32	45	41	26	38	38	1,041
hazards, harmful substances	4	3	3		3	5	2			1		1	1	3		1		3	4	3	2	1			40
materials	75	58	60	51	35	29	37	35	37	31	15	20	17	17	13	16	9	17	11	16	11	9	12	19	650
load	9	9	8	1	5	4	4	2	6	4	5	5	5		2	1	2		2	1	4	3	3	2	87
natural environment	49	56	39	32	33	30	21	25	17	16	16	19	26	18	17	23	21	7	15	13	10	21	11	15	550
other causal agent	6	2	3	3		1	3	1	3				2	1	1		2		1			2	1		32
no causal agent	8	11	9	6	12	3	3	4	5	4	7	6	4	8	3	5	5	5	3	7	6	6	10	6	146
unclassifiable	1	1	1	1								1				1									6
total	557	510	495	371	372	319	355	322	310	249	231	218	218	197	239	244	209	184	209	214	203	199	216	198	6,839

Causal agents (small) of fatal and non-fatal accidents in mining in 1999-2022

Causal (S) 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							1	2	2					2						1					8
power transmission mechanism			10		6		8	6	7	6	1	1	5	3	6	5	7	7	4	4	3	6	3	4	102

circular sawing machine			1		2		1				1					1	1	1		1	1				10
band sawing machine																									
wood planer machine																									
hollow chisel mortiser, wood borer																									
chamfering machine, router, woodworking milling machine																									
chain saw			2				1		1					1		1						1			7
other woodworking machines									1			1	2			1									5
leveling, transporting or loading machine			34		15		27	18	14	9	11	13	12	8	10	9	8	5	12	11	8	15	14	10	263
excavating machine			36		20		20	15	18	13	15	17	9	15	15	15	14	9	9	11	12	10	12	14	299
foundation work machine			1		1		3								1								1		7
hardening machine					1																				1

demolition machine			1		1		2	1	1		1	1			2	1			2	4	1	2			20
vehicle for high lift work																									
other construction machines			8		4		4	2	2	2	3	2	1	1	4	2	1	4	2	3	1	1	2	1	50
lathe					1														1						2
drill press, milling machine									1	1							1	1							4
grinding machine, buffing machine			2		1			1	1	1			1	2	3					1				1	14
power press																									
forging pressure hammer								1																	1
shearing machine													1												1
other metal manufacturing machines								1		1	1				2	2						1			8
centrifugal machine															1										1
mixer, grinder			18		11		10	10	12	5	9	4	3	5	8	2	5	5	7	2	4	5	2	4	131
roll machine (except printingroll machine)							1																		1

injection molding machine																									
food manufacturing machine																						1			1
printing machine																									
industrial robot												1													1
other general power machines			26		9		14	14	21	10	4	11	5	5	7	8	5	5	10	10	3	10	6	4	187
felling machine																			1						1
mobile logging machine																									
skyline yarding machine																									
other mobile silviculture machine																									
crane			3		3		1	4	2	3		2	3	2	1	2	1	2	3	1	3	4	1	1	42
mobile crane			1				1	2	6	1	1	1	4	1		6	4	2			3	2	1	1	37
derrick crane																									
elevator, lift																									
cargo lifting appliance																									
gondola																									

lumberyard equipment, logging cableway																							1		1
simple skyline yarding equipment																									
other powered crane			8				1		1	1	1	2			1			1	2			2	2	2	24
truck			45		39		27	42	24	40	42	23	24	23	37	26	39	30	29	25	28	32	43	29	647
forklift			2		4		2	1	2	1	3		1	1	1		3		2	1	1	1	1		27
railway equipment			1		2		1														1				5
conveyor			46		55		54	44	41	32	34	25	22	35	36	36	21	24	30	25	23	20	17	25	645
loader			3		2		5	3	2		3		3	2		2	1	3	3	5	3	1	1	1	43
straddle carrier																									
rough terrain hauler																			1	1					2
other powered conveying machines			3		2		1	1	3		2	2	2		1	1	1	3		1	2				25
cars, bus, motorcycle			4		7		6	5	4	2		1	3	2	1	3	2	4	3	2	4	1	6	2	62
railway vehicle																									
other vehicles			2				1			2		1		1	1		2			1		2	1		14
boiler																									

pressure vessel							1										1			1					3
other pressure vessels												1													1
chemical facilities							1																		1
gas welding equipment					1		1				1		1		1	1						2		1	9
arc welding equipment			1					1															1	1	4
other welding equipment							1																		1
kiln, caldron									1								1								2
industrial dryer																									
other kiln, caldron																									
transmission														1									1		2
electric power facilities			1				1		1			1		1					1						6
other electrical equipment																1									1
human power cranes			1		3			1	2						3	2		3		1					16
human power hauling equipment							2														2				4

human power machine			1							1	1				1						1				5
hand tool			16		6		6	12	5	6	4	5	6	3	3	6	6	3	5	3	4	2	3	2	106
ladder			9		7		13	6	3	9	4	4	6	7	9	2	5	5	6	5	9	4	9	5	127
slinging tool			5		4		4	2	4	3	4		1	1	1	1	1	2	2	5	2	2	1	1	46
other tools			4		7		7	6	7	5	3	2	1	1	1	4	2	1	4	3	1	2	9	5	75
other equipment, facilities			7		21		7	9	8	7	6	7	8	3	10	4	3	3	2	1	9	2	3	4	124
scaffolding			4		2		2	3	4	3		3	3	2		3	2	2		1	2	2	2		40
timbering																				1			1		2
stairs, landing stage			7		9		11	8	8	6	11	3	3	6	6	6	5	3	5	5	6	5	6	3	122
opening			3		2			4	3	1	1	1	2			1	1		1		1		1		22
roof, beam, haze, crossbeam, principal rafter			4		1		3	1	1	1	2	2	2	1		1				1		1	1	2	24
working platform, boot board			15		8		6	5	3	4	4	5	2	1	5	8	6	10	6	9	6	6	7	6	122
passage			19		12		14	11	9	9	8	14	14	9	15	16	13	9	16	16	10	6	17	18	255
building, establishment			11		10		9	10	14	7	2	7	10	4	6	8	5	4	3	7	8	6	3	5	139
other temporary buildings,			7		5		4	3	3	1	5	3	3	1	4	10	3	1	1	5	8			4	71

establishments																									
explosive substance					1		2						1	1					2	1					8
inflammable substance			1		1																1	1			4
inflammable gas														2											2
harmful substance			1		1							1							1						4
radiation																									
other hazards, harmful substances			1							1						1		3	1	2	1				10
metal material			19		12		14	17	11	12	4	8	6	7	4	7	5	6	6	9	5	3	9	5	169
lumber, bamboo			6		2			1	2	1	1	2	1				1	1			1			1	20
stone, sand, substance			32		18		20	15	22	18	9	10	8	10	7	9	3	9	4	5	5	5	3	12	224
other materials			3		3		3	2	2		1		2		2			1	1	2		1		1	24
load			5		4		4	1	5	4	4	4	5		1	1	1		2	1	4	3	2	1	52
machine/equipment as load			3		1			1	1		1	1			1		1						1	1	12
natural ground, rock			26		23		15	19	12	12	12	12	13	11	10	13	14	3	10	5	8	14	5	10	247
standing tree			2		5		1	2	3	1	2	3	2	2		1	2	1	2	2		1	1		33
water								1					2		1			1		1			1		7
abnormal																									

environment										1					1										2
high/cold temperature environment			3		3		1					1	1		1		2			1		3	1		17
other environments			8		2		4	3	2	2	2	3	8	5	4	9	3	2	3	4	2	3	3	5	77
other causal agent			3				3	1	3				2	1	1		2		1			2	1		20
no causal agent			9		12		3	4	5	4	7	6	4	8	3	5	5	5	3	7	6	6	10	6	118
unclassifiable			1									1				1									3
total	557	510	495	371	372	319	355	322	310	249	231	218	218	197	239	244	209	184	209	214	203	199	216	198	6,839

Workers age of fatal and non-fatal accidents in mining in 1999-2022

Age	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
19 years old or less	4	4	2	5	7	4	5	6	3	1					5	3	1	2			2		1		55
20-29	63	58	47	27	27	25	22	19	25	17	13	10	11	10	20	11	9	14	10	12	13	12	10	10	495
30-39	79	59	67	58	46	47	56	62	33	40	33	34	41	27	29	38	32	26	20	19	20	18	24	17	925
40-49	123	121	124	77	77	73	69	62	70	47	49	47	45	58	49	51	48	36	51	49	49	42	29	44	1,490
50-59	194	175	173	128	139	114	135	117	109	81	79	59	63	61	64	68	53	41	59	56	56	53	73	64	2,214
60 years old or more	94	93	82	76	76	56	68	56	70	63	57	68	58	41	72	73	66	65	69	78	63	74	79	63	1,660
total	557	510	495	371	372	319	355	322	310	249	231	218	218	197	239	244	209	184	209	214	203	199	216	198	6,839

Workers' number of workplace of fatal and non-fatal accidents in mining in 1999-2022

Workers scale	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
9 workers or less	197	166	145	145	146	128	142	119	124	92	94	89	93	78	85	90	84	62	70	58	45	65	69	70	2,456
10-29	234	216	231	160	177	142	158	167	146	127	118	95	95	91	112	122	94	91	110	117	108	100	104	89	3,204
30-49	61	64	54	49	34	29	38	29	33	23	12	21	25	21	32	24	26	23	15	28	34	25	25	29	754
50-99	20	27	19	12	10	12	12	5	2	4	5	7	4	5	8	4	5	6	11	8	10	4	14	6	220
100-299	19	12	13	5	5	7	2	2	3	2	2	4	1	1	2	2		2	2	3	6	4	4	4	107
300 workers or more	26	25	33			1	3		2	1		2		1		2			1			1			98
total	557	510	495	371	372	319	355	322	310	249	231	218	218	197	239	244	209	184	209	214	203	199	216	198	6,839

Month of fatal and non-fatal accidents in mining 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	39	36	44	25	27	35	26	23	30	19	24	17	17	15	20	15	14	16	12	17	21	15	18	15	540
February	44	52	42	30	40	33	30	32	26	18	10	8	26	22	19	24	23	14	14	12	16	18	17	17	587
March	33	41	56	35	26	22	29	27	27	24	19	26	20	22	16	21	17	20	16	22	18	14	18	19	588
April	45	41	41	29	31	25	32	26	30	26	17	16	17	15	18	27	10	18	21	13	12	21	18	12	561
May	52	38	36	25	43	24	24	27	27	26	17	21	8	17	24	15	20	12	20	17	12	11	16	15	547
June	51	43	40	35	26	27	32	31	19	21	24	14	32	14	18	24	20	20	19	22	17	14	24	14	601

July	59	42	38	20	35	25	32	24	27	22	25	21	14	15	17	15	16	22	18	14	18	16	21	14	570
August	46	43	31	31	34	27	36	37	26	18	20	21	12	15	17	17	21	13	16	16	11	15	18	14	555
September	56	32	42	36	31	32	22	27	28	19	24	23	21	10	17	19	19	5	17	18	20	19	11	24	572
October	40	50	47	29	21	28	40	23	22	25	24	18	13	19	24	22	14	15	18	24	22	20	23	16	597
November	44	51	49	40	31	22	30	26	23	17	12	16	21	20	23	26	15	16	21	18	19	15	14	22	591
December	48	41	29	36	27	19	22	19	25	14	15	17	17	13	26	19	20	13	17	21	17	21	18	16	530
total	557	510	495	371	372	319	355	322	310	249	231	218	218	197	239	244	209	184	209	214	203	199	216	198	6,839

Prefecture of fatal and non-fatal accidents in mining 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	49	50	38		32		35	24	23	17	28	26	26	20	26	26	24	15	22	21	24	23	26	21	596
Aomori	8	5	11		10		5	5	3	4	6	5	4	4	2	3	1	3	2	2	4	3	5	1	96
Iwate	14	5	11		8		7	7	6	7	7	6	2	3	6	6	7	7	5	2	2	4	8	6	136
Miyagi	6	6	7		4		10	12	3	3	7	2	6	8	7	13	15	8	8	10	4	3	7	8	157
Akita	9	11	7		7		6	8	5		2	3	3	3	5	6	3	2	2	5	6	2	3		98
Yamagata	14	19	14		9		9	6	6	4	1	5	6	4	6	5	3	6	5		6	5	5	11	149
Fukushima	14	16	4		14		12	8	5	6	2	4	3	5	9	7	6	8	9	13	5	6	5	8	169
Ibaraki	13	13	9		11		11	6	9	9	5	8	6	8	5	4	7	5	5	7	6	10	6	8	171
Tochigi	12	11	13		13		13	18	15	16	8	7	13	8	13	7	4	7	4	8	11	7	9	10	227
Gunma	9	8	12		10		3	4	5	6	4	2	3	2	4	1		2	3	3	1	1	1		84

Saitama	6	11	5		3		3	1	6	2	1	4	2	1	1	2		2	7	9	6		2	3	77
Chiba	6	9	3		4		4	3	6	2	3	4	6	4	4	1	4	3	4	5	5	4	4	5	93
Tokyo	9	9	4		2		3	4	5	1	3	1	3	4	2	2	2	2	2	4	1	2	3	1	69
Kanagawa	6	4	8		5		1	4	3	4	1	2	1	1	2	5	2	1	2	1	1	4	2	5	65
Niigata	14	15	14		18		10	11	10	10	3	5	5	10	10	6	6	5	5	6	5	3	17	7	195
Toyama	10	6	10		2		9	1	1	4	6	4	4	1	4	4	3	1	3	3	1	1	3	4	85
Ishikawa	5	2	7		7		7	1	1	1	3	1	4	1	4	2	3	1	3		1	2	3		59
Fukui	7	11	1		2		2		4			1	2	2	3	1	4	3	4	2		3		3	55
Yamanashi	9	3	6		7		7	3	6	4	2	4	4	3	2	4	1	1	2	3	2	3	4	2	82
Nagano	18	9	15		11		9	4	10	9	10	6	5	2	6	5	4	3	5	8	10	8	8	8	173
Gifu	20	19	14		16		15	14	12	13	5	5	5	6	3	8	7	9	5	11	6	6	4	6	209
Shizuoka	16	8	8		15		8	12	14	16	16	4	6	11	5	9	4	3	10	7	6	3	7	6	194
Aichi	12	15	18		13		7	7	6	9	6	9	8	14	8	9	2	5	4	8	7	10	5	3	185
Mie	12	31	27		17		12	8	4	8	5	6	5	6	13	10	9	6	4	7	7	6	10	3	216
Shiga	4	4	5		6		2	3	2	1	2	3	3		3		2	3	1	1	1	2	1	2	51
Kyoto	8	4	8		12		11	4	5	6	2	1	3	3	7	6	5	3	8	2	1	6	3	2	110
Osaka	5	4	7		2		3		4	4	1	3	3	3	1		6	3	6	3	2	3	1	1	65
Hyogo	21	16	21		6		13	10	12	7	10	13	9	11	7	11	6	3	5	3	8	11	9	9	221
Nara	1	1			2		2	4	3	1	1		2	2	2	1	4	3			4	1		2	36
Wakayama	4	4	4		2		2	2	2	1	1		2	1	2	1	2	3	1	1	1	2	2	2	42
Tottori	3	4	2		5		4	1	2	1	1	2	1		1	1		2	1	2		1		1	35

Shimane	9	7	4		5		7	3	7	5	5	4	5	2	2	1	3	3	1	4	2	2	3	3	87
Okayama	10	12	11		9		10	10	12	7	6	4	7	6	10	9	6	7	10	5	4	6	8	8	177
Hiroshima	15	17	14		8		8	6	12	3	6	3	5	3	8	7	6	2	7	8	6	5	5	4	158
Yamaguchi	5	7	7		7		3	8	4	1	4	5	2	4	3	6	5	3	1	2	1	3	3	2	86
Tokushima	4	8	4		3		1	5	2	1	4	1	1	2	1	3	2	2	5	2	3	3	2	1	60
Kagawa	18	7	9		9		11	7	7	7	5	3		1	2	4	2	6	4	3	4	3	1	1	114
Ehime	14	11	15		16		17	15	14	8	11	11	13	6	13	13	9	4	4	6	3	4	4	3	214
Kochi	9	1	7		2		3	2	4	3	3	3	1	1		1	1	1	2	1	3	3	1	3	55
Fukuoka	18	12	14		7		4	13	6	8	9	6	8	4	5	6	6	6	4	5	5	3	7	3	159
Saga	6	3	7		3		1	6	2	4	2	4	1	2	1	3	4	1	1	5	2	2	4	3	67
Nagasaki	61	47	50		3		7	6	7	5	5	2	5	1	4	6	2	2	4	2	7	5	2	3	236
Kumamoto	21	24	12		10		13	18	8	8	10	10	5	8	5	5	6	7	7	5	12	7	3	7	211
Oita	10	9	5		5		9	9	6	6	2	3	3	1	3	6	4	6	1	2	2	3	2		97
Miyazaki	6	4	14		2		4	7	4	3	4	6	2	1	3	3	4	1	4	1	3	2	5	3	86
Kagoshima	7	8	7		8		10	11	15	4	3	6	5	4	5	4	3	5	6	5	2	3	2	6	129
Okinawa			2				2	1	2			1			1	1			1	1			1		13
total	557	510	495	371	372	319	355	322	310	249	231	218	218	197	239	244	209	184	209	214	203	199	216	198	6,839

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

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Fatal accidents in mining in Japan in 1999-2022

mining industry Code No.02

Type of fatal accidents in mining 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	7	3	12	6	2	5	4	3	5	3	7	2	7	2	2	4	3	1	5	1	2	1	4	2	93
falling to same level				1				1						1	1						1	1		1	7
crash						1	1																		2
struck by flying or falling object	4	2	2	1			2			1									2			1			15
collapse	5	5	4	3	3	2	3	3	1		1			1		2	2	2	2		2	2			43
crashed by	2	1		2			2	3	1			1			1				2			1			16
caught in/between	4	10	5	3	3	4	4	5	4	3	1	1	4	1	3	5	2	2	2		4	2	7	1	80
cut																									
injury to the sole of the foot																									

drown		1			1	2		1					1		1	1		1							9
contact to high/low-temperature		1															1								2
contact to harmful substance										1															1
electric shock		1	1			1																			3
explosion	1				1									1						1					4
burst																									
fire					3											1									4
traffic accident (public road)	1	1		1	1	1			1			1					2				1				10
traffic accident (others)																									
reaction to motion/improper motion																									
others		1							1				1					1							4
unclassifiable																									
total	24	26	24	17	14	16	16	16	13	8	9	5	13	6	8	13	10	7	13	2	10	8	11	4	293

Causal agents (large) of fatal accidents in mining 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	8	6	10	6	2	5	4	4	4	3	3	1	6	1	3	6	2	1	3		2	2	5	2	89
crane, conveying machine	5	7	3	5	4	4	4	7	7	3	5	3	2	2	2	2	4	2	5		5	3	5	1	90
other equipment		4	4		5	2										1	1								17
temporary buildings, establishments	1	1	1	1		1	2						2	1	1	2	1		2		1		1	1	19
substance, material	3	2	1		1		2	2	1	1		1		1				2	1	1		2			21
load																									
environment	7	6	5	5	2	4	4	3		1	1		3	1	2	2	2	1	2	1	2	1			55
others									1									1							2
total	24	26	24	17	14	16	16	16	13	8	9	5	13	6	8	13	10	7	13	2	10	8	11	4	293

Causal agents (middle) of fatal accidents in mining 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																									
power transmission mechanism																									

woodworking machine																									
construction machine	7	2	7	6	1	5	4	2	4	3	3	1	6	1	2	5	2	1	3		2	2	4	2	75
metal manufacturing machine																									
general machine	1	4	3		1			2							1	1							1		14
mobile silviculture machine																									
crane				1																					1
conveying machine	4	7	3	4	3	3	4	7	7	3	5	3	2	2	2	2	4	2	5		5	3	3	1	84
vehicle	1				1	1																	2		5
pressure vessel																									
chemical facilities																									
welding equipment			1													1									2
kiln, caldron																									
electric equipment						1																			1
human power machine, tools		1																							1
tools		2	2			1											1								6
other equipments,																									

facilities		1	1		5																				7
temporary buildings, establishments	1	1	1	1		1	2						2	1	1	2	1		2		1		1	1	19
hazards, harmful substances	1						1			1				1					1	1					6
materials	2	2	1		1		1	2	1			1						2				2			15
load																									
natural environment	7	6	5	5	2	4	4	3		1	1		3	1	2	2	2	1	2	1	2	1			55
other causal agent																									
no causal agent									1									1							2
unclassifiable																									
total	24	26	24	17	14	16	16	16	13	8	9	5	13	6	8	13	10	7	13	2	10	8	11	4	293

Causal agents (small) of fatal accidents in mining in 1999-2022

Causal (S) 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																									
power transmission mechanism																									

circular sawing machine																									
band sawing machine																									
wood planer machine																									
hollow chisel mortiser, wood borer																									
chamfering machine, router, woodworking milling machine																									
chain saw																									
other woodworking machines																									
leveling, transporting or loading machine	2	1	5	4	1	2		2	2	2			5		1	3		1			2	2	3		38
excavating machine	4	1	2	2		2	4		1		3	1	1		1	2	2		3				1	1	31
foundation work machine																									
hardening machine																									

demolition machine	1					1			1																3
vehicle for high lift work																									
other construction machines										1				1										1	3
lathe																									
drill press, milling machine																									
grinding machine, buffing machine																									
power press																									
forging pressure hammer																									
shearing machine																									
other metal manufacturing machines																									
centrifugal machine																									
mixer, grinder	1	2	2		1			1							1	1							1		10
roll machine (except printingroll machine)																									

injection molding machine																									
food manufacturing machine																									
printing machine																									
industrial robot																									
other general power machines		2	1					1																	4
felling machine																									
mobile logging machine																									
skyline yarding machine																									
other mobile silviculture machine																									
crane																									
mobile crane				1																					1
derrick crane																									
elevator, lift																									
cargo lifting appliance																									
gondola																									

lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									
other powered crane																									
truck	2	2	2	2	2	1	3	2	4	2	4	2	2	1		1	3	1	1		3		2	1	43
forklift								1	1										1			1			4
railway equipment																									
conveyor	2	5	1	2	1	2	1	4	2	1	1	1		1	2	1	1	1	2		2	2	1		36
loader																									
straddle carrier																									
rough terrain hauler																			1						1
other powered conveying machines																									
cars, bus, motorcycle	1				1	1																	2		5
railway vehicle																									
other vehicles																									
boiler																									

pressure vessel																									
other pressure vessels																									
chemical facilities																									
gas welding equipment																1									1
arc welding equipment			1																						1
other welding equipment																									
kiln, caldron																									
industrial dryer																									
other kiln, caldron																									
transmission						1																			1
electric power facilities																									
other electrical equipment																									
human power cranes		1																							1
human power hauling equipment																									

human power machine																									
hand tool																									
ladder		1															1								2
slinging tool		1	2																						3
other tools						1																			1
other equipment, facilities		1	1		5																				7
scaffolding																									
timbering																									
stairs, landing stage																			1						1
opening						1											1								2
roof, beam, haze, crossbeam, principal rafter																									
working platform, boot board							1								1	1									3
passage	1			1												1							1		4
building, establishment		1	1										2	1					1		1			1	8
other temporary buildings,							1																		1

establishments																									
explosive substance	1						1												1	1					4
inflammable substance																									
inflammable gas														1											1
harmful substance										1															1
radiation																									
other hazards, harmful substances																									
metal material	1							1																	2
lumber, bamboo												1													1
stone, sand, substance	1	2	1		1		1	1	1									2				2			12
other materials																									
load																									
machine/equipment as load																									
natural ground, rock	7	5	5	5	2	2	4	2		1	1		1	1		2			1	1	2	1			43
standing tree																	1		1						2
water						1		1					2		1			1							6
abnormal																									

environment																									
high/cold temperature environment		1															1								2
other environments						1									1										2
other causal agent																									
no causal agent									1									1							2
unclassifiable																									
total	24	26	24	17	14	16	16	16	13	8	9	5	13	6	8	13	10	7	13	2	10	8	11	4	293

Workers age of fatal accidents in mining in 1999-2022

Age	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
19 years old or less								2																	2
20-29	1	2	2		3	1		2	1				2	1	1	2						1			19
30-39	3	2	2	2		4	2	2	1	1	2					1		1		1	1				25
40-49	2	6	3	8	5		4	1	1	2	3		4	1	1		1	1	2		1	2	2		50
50-59	11	11	9	4	4	7	7	8	7	3	1	2	2	2	1	4	5	3	4		3	1	3	3	105
60 years old or more	7	5	8	3	2	4	3	1	3	2	3	3	5	2	5	6	4	2	7	1	5	4	6	1	92
total	24	26	24	17	14	16	16	16	13	8	9	5	13	6	8	13	10	7	13	2	10	8	11	4	293

Workers' number of workplace of fatal accidents in mining in 1999-2022

Workers scale	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
9 workers or less	5	12	5	5	3	6	5	3	4	1	2	3	4	3	3	6	4	4	9	1	3	5	1	2	99
10-29	17	10	13	9	8	8	10	12	7	7	6	2	7	2	5	6	5	2	3	1	6	3	6	1	156
30-49	2	1	5	3	3		1		1		1		1	1		1	1	1			1		1	1	25
50-99								1	1				1						1				3		7
100-299		2	1			2																			5
300 workers or more		1																							1
total	24	26	24	17	14	16	16	16	13	8	9	5	13	6	8	13	10	7	13	2	10	8	11	4	293

Month of fatal accidents in mining 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	3	4	3	1		2	2	2			1	1			2			1	1		1		1		25
February		3	4	2	3	1	3						1		1	1	2	1	2		1	1		1	27
March		1	3	2		1				1	1		2	1	1	2	1				2				18
April	2	3	1	1	1	2	2	4	2			1		1		2	1	1	2			1	1		28
May	2			1	3	2	2		2	2		1	1	1		1			1			1			20
June	5	2	1		1		1	1	1	2	4		3	1			1	1	2			1	2	1	30

July	1		2	1	2		2	3	2	1	1	1	1	1	1	1	2		1		1				24
August	3	2	1	2	1	4		1	1	1			1			1	1	1		1			2		23
September	2	1	2	2		2	2	1	1				1				2		1	1	2	1			21
October	1	2	4	1	1	1	1	3	1			1			2	1			2		3		2	1	27
November	3	4	2	3	1	1	1		1				3			3		2	1			2	2	1	30
December	2	4	1	1	1			1	2	1	2			1	1	1						1	1		20
total	24	26	24	17	14	16	16	16	13	8	9	5	13	6	8	13	10	7	13	2	10	8	11	4	293

Prefecture of fatal accidents in mining 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	2	4	3	1	1	2	1	1	1	1			3		1	1	2	1	2			1	1		29
Aomori											1					1								1	3
Iwate		1		1				1	1		1		1		1	1							1		9
Miyagi	1						2	1			1		1				1						1		8
Akita	3	1		1				1			1				1	1									9
Yamagata		1	3											1								1			6
Fukushima	1	1					1		1	1					1				2						8
Ibaraki		2			1	2	2					1	1			1			1	1				1	13
Tochigi	1							2							1	1		2			2		1		10
Gunma								1						1											2

Saitama	1									1								1							3
Chiba		3				1						1			1	1			1		1				9
Tokyo				1																					1
Kanagawa					2					1								1							4
Niigata			2		5	1		1	2				1										2		14
Toyama				1																					1
Ishikawa	2																		1				1		4
Fukui	1	2				1			2				1												7
Yamanashi			1				1																1		3
Nagano				1												1									2
Gifu				1	1				1																3
Shizuoka		2		1		1	1			1									1		1	1			9
Aichi	1		1	1			1			1		1	1	1		1						1			10
Mie	1		1										1	1		1	2								7
Shiga	1	1																							2
Kyoto					2		1	1	1		1						2					1	1		10
Osaka													1	1			1		1						4
Hyogo			2			1			1		1	1						1							7
Nara							1																		1
Wakayama							1																		1
Tottori					1		1																		2

Shimane		1			1					1					1										4
Okayama	1		2																3					1	7
Hiroshima	3			1				2			1					1					1	1		1	11
Yamaguchi		1											1				1	1				1			5
Tokushima				1			1																		2
Kagawa						1		1						1											3
Ehime			1	1			1								1	1					1				6
Kochi			2			2	1				1										1				7
Fukuoka			4	1		1		2															1		9
Saga		1	1																				1		3
Nagasaki		2						1					1						1	1	1				7
Kumamoto	1	2		1		1				1	1										1				8
Oita	3			1													1				1				6
Miyazaki	1		1			1			1							1						1			6
Kagoshima		1		2		1		1	2			1													8
Okinawa																									
total	24	26	24	17	14	16	16	16	13	8	9	5	13	6	8	13	10	7	13	2	10	8	11	4	293

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

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