quarrying industry Code No.020201

Type of accidents in quarrying in 1999-2021

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	total	Type of accidents
fall from height	74	57	63	44	55	41	48	47	48	36	53	33	33	31	41	54	34	25	36	37	33	38	43	1,004	fall from height
falling to same level	34	20	21	18	19	10	16	19	12	17	13	10	17	14	16	15	9	15	11	14	14	14	13	361	falling to same level
crash	29	9	13	20	13	11	14	15	20	5	7	10	5	5	8	6	8	7	4	9	5	3	6	232	crash
struck by flying or falling object	34	32	32	29	23	15	18	27	15	16	9	16	11	11	16	18	9	6	11	6	7	10	3	374	struck by flying or falling object
collapse	11	15	9	11	11	7	12	4	9	4	3	4	4	4	2	5	3	1	6		3	4	1	133	collapse
crashed by	18	13	20	15	17	13	17	17	9	9	6	13	5	7	7	4	9	5	9	9	9	6	5	242	crashed by
caught in/between	65	66	55	40	51	44	43	34	45	31	27	20	26	28	38	29	23	34	32	23	19	25	26	824	caught in/between
cut	6	5	7	8	1	2	3	1	4	4	4	1	1	1	2	2	2	2	4	2	3	2	1	68	cut
injury to the sole of the foot	1		1		1				1							1			1	1	1			8	injury to the sole of the foot
drown													1											1	drown
contact to high/low- temperature	12	5		1	4	4	6		1		1	1	2		2			3	1	1	3	4	2	53	contact to high/low- temperature

contact to harmful																									contact to
substance			1		1							1							1	1		1		6	harmful
substance																									substance
electric shock		1	2			1	1		1															6	electric shock
explosion	2		2										1						1	2				8	explosion
burst		2		1	2										1							1	2	9	burst
fire		1					1									1	1							4	fire
traffic accident (public	5	4	6		1		1	2	1	2	2		2		3	2	1		3		1	1	2	39	traffic accident
road)					'				1													ľ		39	(public road)
traffic accident			1	2		1		1				1		1	1	1								9	traffic accident
(others)			"			•		'				ľ		<u>'</u>	1	<u> </u>								-	(others)
reaction to																									reaction to
motion/improper	15	13	15	10	8	12	12	7	7	10	8	8	6	3	4	4	12	4	5	8	9	9	8	197	motion/improper
motion																									motion
others	1	2		1	1	1	1		2	1	2	2	2		1		2		1				1	21	others
unclassifiable																									unclassifiable
total	307	245	248	200	208	162	193	174	175	135	135	120	116	105	142	142	113	102	126	113	107	118	113	3,599	total

Causal agents (large) of fatal and non-fatal accidents in quarrying in 1999-2021

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	total	Causal (L)
Causar (L) agents		2000	2001	2002	2003	2004	2003	2000	2007	2000	2003	2010	2011	2012	2013	2014	2013	2010	2017	2010	2017	2020	2021	II I	agents
machine	75	56	77	41	39	35	49	44	47	32	30	26	16	28	38	24	26	22	33	24	17	30	24	833	machine
crane, conveying																									crane,

machine	67	75	64	51	62	43	57	47	41	38	50	32	27	39	43	42	30	38	47	31	39	41	32	1,036	conveying
machine																									machine
athor aguinment	37	20	24	28	25	25	25	19	16	20	14	11	16	8	18	11	10	9	10	10	18	7	15	396	other
other equipment	37	20	24	20	23	25	25	19	10	20	14		10	0	10		10	9		10	10		13		equipment
tompovom buildings																									temporary
temporary buildings, establishments	52	26	28	19	26	17	19	24	30	18	17	20	17	9	20	31	20	14	15	30	18	12	24	506	buildings,
establishments																									establishments
substance, material	40	27	23	34	24	22	23	22	24	13	7	13	14	9	10	12	6	13	8	8	4	5	7	368	substance,
substance, material	40	27	23	34	24		23		24	13		13	14	9	10	12		13	0	0	4				material
load	1	4	3		3	1	1		3	2	2	4	2		1	1				1	2	3	3	37	load
environment	30	30	24	21	23	18	15	16	8	9	11	10	21	10	11	19	15	3	12	6	5	16	5	338	environment
others	5	7	5	6	6	1	4	2	6	3	4	4	3	2	1	2	6	3	1	3	4	4	3	85	others
total	307	245	248	200	208	162	193	174	175	135	135	120	116	105	142	142	113	102	126	113	107	118	113	3,599	total

Causal agents (middle) of fatal and non-fatal accidents in quarrying in 1999-2021

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	total	Causal (M) agents
engine							1	1	2					1						1				6	engine
power transmission mechanism	6	4	4	4	3	2	3	4	5	4	1	1	3	3	3	3	5	5	1	4		4	2		power transmission mechanism
woodworking machine		3		3	1		2				1	1				1		1						13	woodworking machine

construction machine	42	28	48	22	23	16	31	23	21	17	21	20	9	17	19	16	16	8	17	14	13	17	18	476	construction machine
metal manufacturing machine	1	2	2	2	1	1		1	2	2				2	3			1	1					21	metal manufacturing machine
general machine	26	19	23	10	11	16	12	15	17	9	7	4	4	5	13	4	5	7	13	5	4	9	4	242	general machine
mobile silviculture machine																			1					1	mobile silviculture machine
crane	2	5	6	6	2	1	2	3	3	3		3	2	3	2	4	2	2	4	1	5	4	2	67	crane
conveying machine	63	67	56	45	55	42	54	41	37	32	50	29	24	36	41	36	27	35	41	29	31	35	30	936	conveying machine
vehicle	2	3	2		5		1	3	1	3			1			2	1	1	2	1	3	2		33	vehicle
pressure vessel							1										1							2	pressure vessel
chemical facilities							1																	1	chemical facilities
welding equipment	5	1	1	1	1		2	1			1		1		1	1						1	1	18	welding equipment
kiln, caldron	1								1								1							3	kiln, caldron
electric equipment		2	1			3	1							1										8	electric equipment
human power machine,	15	7	10	9	4	6	5	8	6	4	2	3	5	2	5	4	3	3	4	3	4	1	3	116	human power

tools	10	4	9	12	11	11	13	7	6	10	7	4	5	3	5	4	4	5	4	7	7	3	10	161	tools
other equipments,	6	6	3	6	9	5	2	3	3	6	4	4	5	2	7	2	1	1	2		7	2	1		other equipments, facilities
temporary buildings, establishments	52	26	28	19	26	17	19	24	30	18	17	20	17	9	20	31	20	14	15	30	18	12	24		temporary buildings, establishments
hazards, harmful substances	4	3	2		2	3	2					1	1	1				3	3	2				27	hazards, harmful substances
materials	36	24	21	34	22	19	21	22	24	13	7	12	13	8	10	12	6	10	5	6	4	5	7	341	materials
load	1	4	3		3	1	1		3	2	2	4	2		1	1				1	2	3	3	37	load
natural environment	30	30	24	21	23	18	15	16	8	9	11	10	21	10	11	19	15	3	12	6	5	16	5	338	natural environment
other causal agent	2	1	1	2		1	2	1	2				1	1	1		1					1	1	18	other causal agent
no causal agent	3	6	4	4	6		2	1	4	3	4	3	2	1		2	5	3	1	3	4	3	2	66	no causal agent
unclassifiable												1												1	unclassifiable
total	307	245	248	200	208	162	193	174	175	135	135	120	116	105	142	142	113	102	126	113	107	118	113	3,599	total

Causal agents (small) of fatal and non-fatal accidents in quarrying in 1999-2021

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	total	Causal (S) agents

engine				1	1	2					1						1				6	engine
power transmission mechanism		4	3	3	4	5	4	1	1	3	3	3	3	5	5	1	4		4	2	58	power transmission mechanism
circular sawing machine			1	1				1					1		1						5	circular sawing machine
band sawing machine																						band sawing machine
wood planer machine																						wood planer machine
hollow chisel mortiser, wood borer																						hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																						chamfering machine, router, woodworking milling machine
chain saw				1																	1	chain saw
other woodworking machines									1												1	other woodworking machines
leveling, transporting or loading machine		16	9	13	11	10	6	6	5	7	5	5	5	5	1	9	3	4	7	10	137	leveling, transporting or loading machine
excavating machine		24	9	13	10	9	9	12	13	1	12	10	10	10	4	6	8	8	8	6	182	excavating machine
foundation work			1	1								1								1	4	foundation work

	 		 	 																		<u></u>
hardening machine			1																		1	hardening machine
demolition machine		1		2	1			1				1				1	2	1	1		11	demolition machine
vehicle for high lift work																						vehicle for high lift work
other construction machines		7	3	2	1	2	2	2	2	1		2	1	1	3	1	1		1	1	33	other construction machines
lathe			1													1					2	lathe
drill press, milling machine						1	1								1						3	drill press, milling machine
grinding machine, buffing machine		2				1	1				2	2									8	grinding machine, buffing machine
power press																						power press
forging pressure hammer					1																1	forging pressure hammer
shearing machine																						shearing machine
other metal manufacturing machines												1									1	other metal manufacturing machines
centrifugal machine												1									1	centrifugal machine
mixer, grinder		12	6	6	5	6	3	5	2	2	3	7	1	3	4	7	1	1	4	1	79	mixer, grinder
roll machine (except printingroll machine)																						roll machine (except printingroll machine)
injection molding																						injection molding

machine																						machine
food manufacturing																						food manufacturing
machine																						machine
printing machine																						printing machine
industrial robot																						industrial robot
other general power machines		11	5	6	10	11	6	2	2	2	2	5	3	2	3	6	4	3	5	3	91	other general power machines
felling machine																1					1	felling machine
mobile logging machine																						mobile logging machine
skyline yarding machine																						skyline yarding machine
other mobile																						other mobile
silviculture machine																						silviculture machine
crane		2	2	1	3	2	1		1	1	2	1				2	1	3	4		26	crane
mobile crane		1				1	1		1	1	1		4	2	2			2			16	mobile crane
derrick crane																						derrick crane
elevator, lift																						elevator, lift
cargo lifting																						cargo lifting
appliance																						appliance
gondola																						gondola
lumberyard																						lumberyard
equipment, logging																				1	1	equipment, logging
cableway																						cableway

	 \square		<u> </u>				<u> </u>	<u> </u>	_	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>									
simple skyline																								simple skyline
yarding equipment																								yarding equipment
other powered		3				1			1					1								1	10	other powered
crane		3				ı					'							2					10	crane
truck		26		25		18	21	10	19	25	12	13	15	20	16	14	11	17	14	14	18	21	329	truck
forklift				1		1	1	1		2		1	1	1		1		1			1		12	forklift
railway equipment				1																			1	railway equipment
conveyor		25		26		32	16	24	13	21	15	9	19	19	18	11	18	22	13	14	15	9	339	conveyor
loader		3		2		3	2	1		1			1		1		3	1	2	1	1		22	loader
straddle carrier																								straddle carrier
rough terrain hauler																								rough terrain hauler
other powered		2					1	1		1	2	1		1	1	1	3			2			16	other powered
conveying machines							<u> </u>			<u> </u>					<u> </u>	'								conveying machines
cars, bus,		1		5		1	3	1	2			1			2		1	2	1	3	1		24	cars, bus,
motorcycle														<u> </u>			<u> </u>		ļ <u>.</u>					motorcycle
railway vehicle																								railway vehicle
other vehicles		1							1							1					1		4	other vehicles
boiler																								boiler
pressure vessel						1										1							2	pressure vessel
other pressure																								other pressure
vessels																								vessels
chemical facilities						1																	1	chemical facilities
gas welding				1		1				1		1		1	1						1		7	gas welding

equipment																						equipment
arc welding equipment		1			1															1	3	arc welding equipment
other welding equipment				1																	1	other welding equipment
kiln, caldron						1								1							2	kiln, caldron
industrial dryer																						industrial dryer
other kiln, caldron																						other kiln, caldron
transmission											1										1	transmission
electric power facilities		1		1																	2	electric power
other electrical equipment																						other electrical equipment
human power cranes						1						2	1		1						5	human power cranes
human power				1														1			2	human power hauling equipment
human power								1				1						1			3	human power machine
hand tool		10	4	4	8	5	4	1	3	5	2	2	3	3	2	4	3	2	1	3	69	hand tool
ladder		6	1	6	4	2	4	3	3	4	3	4		2	3	3	3	5	3	6	65	ladder
slinging tool		2	3	2	2	1	3	2				1	1	1	1		3	1		1	24	slinging tool
other tools		1	7	5	1	3	3	2	1	1			3	1	1	1	1	1		3	35	other tools
other equipment,																						other equipment,

facilities		3	9	2	3	3	6	4	4	5	2	7	2	1	1	2		7	2	1	64	facilities
scaffolding		1	1	2	2	3			2	2	1		3		1		1		2	2	23	scaffolding
timbering																						timbering
stairs, landing stage		3	7	1	4	4	4	4	1	2	3	3	3	2		1	4	4	3	4	57	stairs, landing stage
opening		1	2		1	3		1	1	1			1			1				1	13	opening
roof, beam, haze, crossbeam, principal rafter		2	1	2		1	1	2	1											1	11	roof, beam, haze, crossbeam, principal rafter
working platform, boot board		6	3	4	4	1	3	1	2		1	4	5	6	5	3	7	4	1	5	65	working platform, boot board
passage		9	6	8	6	6	5	4	9	7	3	8	8	9	5	9	10	3	3	9	127	passage
building, establishment		4	5	2	5	11	4	1	3	4	1	4	5	2	2		4	1	3	2	63	building, establishment
other temporary buildings, establishments		2	1		2	1	1	4	1	1		1	6	1	1	1	4	6			33	other temporary buildings, establishments
explosive substance			1	2						1	1					2	1				8	explosive substance
inflammable substance																						inflammable substance
inflammable gas																						inflammable gas
harmful substance		1	1						1												3	harmful substance
radiation																						radiation
other hazards, harmful substances		1													3	1	1				6	other hazards, harmful substances

	 			 	<u> </u>		<u> </u>	!	<u> </u>	!	<u> </u>	!	<u> </u>	<u> </u>								
metal material	5	5	3	7	11	6	5		5	5	5	2	5	4	3	3	2	2	2	4	79	metal material
lumber, bamboo		1	1		1				1	1											5	lumber, bamboo
stone, sand, substance	1	14	17	13	10	17	8	7	6	6	3	7	7	2	6	1	3	2	3	3	135	stone, sand, substance
other materials		1	1	1		1				1		1			1	1	1				9	other materials
load	[2	2	2	1		2	2	2	3	2			1				1	2	3	2	25	load
machine/equipment as load	1	1	1			1			1			1								1	6	machine/equipment as load
natural ground, rock	1	17	16	13	15	7	8	9	8	12	8	8	12	12	2	9	3	5	12	2	178	natural ground,
standing tree	2	2	4	1		1				2	1		1	1		1			1		15	standing tree
water										2							1			1	4	water
abnormal environment							1														1	abnormal environment
high/cold temperature environment	1	1	2	1					1	1		1					1		2	1	11	high/cold temperature environment
other environments		4	1		1			2	1	4	1	2	6	2	1	2	1		1	1	30	other environments
other causal agent		1		2	1	2				1	1	1		1					1	1	12	other causal agent
no causal agent		4	6	2	1	4	3	4	3	2	1		2	5	3	1	3	4	3	2	53	no causal agent
unclassifiable									1												1	unclassifiable
total	2	248	208	193	174	175	135	135	120	116	105	142	142	113	102	126	113	107	118	113	2,685	total

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Age
19 years old or less	2	1		4	4	2	5	2	1						4	1		2			1		1	30	19 years old or less
20-29	36	29	25	14	15	12	10	13	12	10	6	7	7	4	16	8	6	4	6	6	7	7	4	264	20-29
30-39	43	30	27	28	30	28	27	37	18	23	22	20	23	16	18	28	18	15	12	14	7	9	12	505	30-39
40-49	57	50	61	48	43	36	39	36	44	25	30	27	20	33	27	33	27	26	35	25	32	28	13	795	40-49
50-59	114	90	92	64	75	60	83	64	67	44	41	33	39	31	34	35	33	21	39	26	32	34	46	1,197	50-59
60 years old or	55	45	43	42	41	24	29	22	33	33	36	33	27	21	43	37	29	34	34	42	28	40	37	808	60 years old or
more			TJ	T2											TJ	,				72	20		J,		more
total	307	245	248	200	208	162	193	174	175	135	135	120	116	105	142	142	113	102	126	113	107	118	113	3,599	total

Workers' number of workplace of fatal and non-fatal accidents in quarrying in 1999-2021

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	total	Workers scale
9 workers or less	120	78	70	74	79	62	82	61	67	44	50	51	44	36	53	48	42	29	41	30	17	39	36	1,253	9 workers or less
10-29	144	123	139	98	109	82	87	96	90	77	76	55	54	56	68	73	54	61	66	63	62	56	55	1,844	10-29
30-49	37	38	32	23	16	15	18	17	17	12	7	12	17	11	18	17	15	10	13	17	22	18	15	417	30-49
50-99	3	6	7	5	4	3	3		1	1	2	2	1	2	3	3	2	1	6	3	3	3	5	69	50-99
100-299	3						2			1						1		1			3	2	2	15	100-299
300 workers or							1																	1	300 workers or
more																								•	more
total	307	245	248	200	208	162	193	174	175	135	135	120	116	105	142	142	113	102	126	113	107	118	113	3,599	total

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month
January	21	16	18	15	11	16	16	11	18	11	10	11	9	8	12	8	5	10	8	11	9	9	10	273	January
February	24	20	24	16	22	15	18	12	11	9	6	3	17	8	9	18	14	8	11	5	8	7	9	294	February
March	19	25	29	17	11	15	17	13	13	16	10	14	10	13	9	11	7	14	9	15	8	6	8	309	March
April	29	19	17	17	19	7	13	15	19	12	8	7	6	6	13	15	7	8	11	6	9	15	13	291	April
May	30	20	21	13	24	13	13	15	15	12	9	11	5	7	15	9	9	5	13	12	8	5	10	294	May
June	23	20	17	17	17	16	19	13	6	13	15	7	18	10	10	16	12	13	12	13	11	11	12	321	June
July	30	19	19	11	16	14	19	14	9	14	14	12	6	9	11	7	9	13	14	7	7	9	6	289	July
August	27	18	15	17	21	18	19	23	17	10	13	13	6	10	11	8	11	8	11	7	5	6	11	305	August
September	29	18	19	16	18	12	10	14	21	11	17	14	11	8	7	7	11	2	9	10	12	13	4	293	September
October	20	24	30	20	13	16	24	15	14	11	16	8	9	12	11	16	8	8	16	8	14	10	15	338	October
November	25	23	23	22	18	9	17	15	16	9	8	11	14	10	16	15	8	6	8	10	7	12	4	306	November
December	30	23	16	19	18	11	8	14	16	7	9	9	5	4	18	12	12	7	4	9	9	15	11	286	December
total	307	245	248	200	208	162	193	174	175	135	135	120	116	105	142	142	113	102	126	113	107	118	113	3,599	total

Prefecture of fatal and non-fatal accidents in quarrying in 1999-2021

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Prefecture
Hokkaido	18	14	14		10		14	7	7	4	5	9	10	5	8	11	5	4	15	6	10	8	9	193	Hokkaido
Aomori	6	3	7		9		3	1		3	4	3	1	2	2	2		2	2		2	2	4	58	Aomori
lwate	8	2	6		4		5	4	2	4	3	3	1	2	4	3	2	6	5	1	1	2	6	74	lwate
			\equiv	\equiv	\equiv	\equiv	\equiv	\equiv	一	\equiv		\equiv	\equiv	\equiv	\equiv		i	\equiv	一	\equiv		\equiv	\equiv	\equiv	

Miyagi	5	5	3	2	6	8		2	5	1	4	6	6	8	6	3	6	4	3	2	4	89	Miyagi
Akita	5	7	2	4	3	2	4		2	1	2	3	4	4	1	2	1	3	4	1	2	57	Akita
Yamagata	6	6	9	6	5	5	2	3	1	3	1	1	3	5	3	3	2		4	2	2	72	Yamagata
Fukushima	7	12	2	11	11	4	5	5	1	4	2	3	6	3	6	5	3	7	2	2	3	104	Fukushima
Ibaraki	6	4	5	8	5	3	6	4	3	2	4	5	2	1	4	3	3	7	4	6	5	90	Ibaraki
Tochigi	4	3	1	5	5	5	7	6	4	2	9	4	5	2	3	4	3	6	1	4	4	87	Tochigi
Gunma	4	1	5	4		2	2	2	3	1	1	1	3	1			1	1	1	1		34	Gunma
Saitama	4	3	1		1	1	1	1	1	1			1				2	1	1			19	Saitama
Chiba	2							1	1		1	1			1	1						8	Chiba
Tokyo	8	7	3	1	3	4	4	1	3	1	3	4	2	2	2	1	1	2		2	2	56	Tokyo
Kanagawa	3	2	6	2		2	2	3	1	1		1	2	4	2		2		1	2	1	37	Kanagawa
Niigata	3	4	2			2	1	1					1					1			1	16	Niigata
Toyama	1	1	2		1									2				1				8	Toyama
Ishikawa	4	2	5	5	5		1	1	2	1			4	2	2		1			1	2	38	Ishikawa
Fukui	5	4	1	1	2		2			1	1	1	1		2	1	3	2		1		28	Fukui
Yamanashi	2	1		2	1			1	1	1	2	1				1	1	1	2	2		19	Yamanashi
Nagano	7	4	2	3	2	3	5	3	6	3	1		3	1	4	1	1	3	4	5	1	62	Nagano
Gifu	10	6	6	7	5	6	5	3	1	1	2	1	2	1	3	4	1	2	2	3		71	Gifu
Shizuoka	4	4	1	8	4	3	4	8	6	2	1	7	1	5	3	1	5	1	2	1	2	73	Shizuoka
Aichi	9	10	14	10	5	5	5	9	4	5	5	11	6	6	2	4	1	7	6	7	3	134	Aichi
Mie	11	17	17	9	4	3		4	4	4	1	1	7	5	5	4	4	3	5	2	8	118	Mie
Shiga		3	1		2	2	2		1	1	1		2		1	1	1		1	1		20	Shiga
Kyoto	3	3	4	8	4	2	4	2	1	1	1	2	6	5	3	2	6	1		5	2	65	Kyoto

Osaka	3	3	7	2	3		1	3	1	3	3	1	1		4	2	5	1	2	3	1	49	Osaka
Hyogo	16	11	16	6	11	8	10	7	7	12	8	8	3	8	4	2	3	1	2	8	8	159	Hyogo
Nara	1			2	2	1	2	1	1			2	1	1	2	2			4	1		23	Nara
Wakayama	4	1	2	1	2	2		1							1						1	15	Wakayama
Tottori	3	3	2	4	2	1	2	1	1	1	1		1	1		2	1	1		1		28	Tottori
Shimane	8	5	3	3	6	1	6	3	4	2	3	2	1		1	3		4	1		2	58	Shimane
Okayama	7	9	9	8	7	9	10	7	6	4	6	5	9	7	5	7	9	5	4	5	8	146	Okayama
Hiroshima	15	14	11	6	6	5	11	1	5	3	4	3	8	6	4	1	5	7	5	3	4	127	Hiroshima
Yamaguchi	5	5	5	5	2	8	4	1	4	5	1	2	3	4	4	3	1	2		3	3	70	Yamaguchi
Tokushima	1	2	1	1		2		1	4	1		1		2	1	1	4	1	1	2		26	Tokushima
Kagawa	18	7	9	8	11	5	7	7	5	3			2	4	2	5	2	3	4	3	1	106	Kagawa
Ehime	14	10	14	15	11	12	12	4	9	9	12	5	11	12	9	4	4	6	2	3	4	182	Ehime
Kochi	5		4	1	2		3	2	1	2	1					1	1		2	2		27	Kochi
Fukuoka	16	9	7	5	3	12	6	7	6	5	8	3	4	4	4	4	3	5	4	2	7	124	Fukuoka
Saga	5	2	7	3	1	5	2	4	2	4	1	2	1	2	4	1	1	4	2	2	4	59	Saga
Nagasaki	10	6	7	3	7	5	5	4	5	2	4		4	6	2	2	4	2	7	5	2	92	Nagasaki
Kumamoto	17	19	9	7	11	12	6	3	5	7	4	5	5	3	2	2	5	4	6	6	3	141	Kumamoto
Oita	5	4	2	3	3	3	4	3	2	2	1	1	2	4	1	3		1	2	2	1	49	Oita
Miyazaki	4	1	8					1	3		1		1	1	1		2	1	2	2	1	29	Miyazaki
Kagoshima	5	6	5	6	6	9	13	3	1	3	4	3	3	4	2	4	5	4	1	3	2	92	Kagoshima
Okinawa			1		1								1				1	1				5	Okinawa
total	307	245	248	208	193	174	175	135	135	120	116	105	142	142	113	102	126	113	107	118	113	3,237	total

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more. 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.htm (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2021e_industry.html

Fatal accidents in quarrying in Japan in 1999-2021

quarrying industry Code No.020201

Type of fatal accidents in quarrying in 1999-2021

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	total	Type of accidents
fall from height	4	1	7	5	2	1	3	1	4	3	6	2	3	2	2	3	2	1	2	1	2	1	1	59	fall from height
falling to same level								1														1		2	falling to same level
crash						1	1																	2	crash
struck by flying or falling object	4	2	1	1			1			1									2					12	struck by flying or falling object
collapse	1	2	3	3	2	1	3	2								2	1		1		1	2		24	collapse
crashed by	2			1			1	3							1				1					9	crashed by
caught in/between	3	6	3	3	2	3	2	4	2	1	1		3		2	2	2	2	2		3	2	4	52	caught in/between
cut																									cut

the foot drown of the foot dro		-	-	-	-	-	-	-	-	-		_	-	-	-	-	-	-	-	-					-	1
drown contact to high/low-temperature contact to high/low-temperature contact to harmful substance electric shock 1 1 1 1 1	injury to the sole of																									injury to the sole
contact to high/low-temperature contact to harmful substance electric shock 1 1 1 1 1 0 0 0 1 1 0 2 explosion burst fire traffic accident (public road) traffic accident (others) reaction to motion/improper motion others unclassifiable	the foot																									of the foot
contact to high/low-temperature contact to harmful substance electric shock	drown													1											1	drown
temperature contact to harmful substance electric shock 1 1 1 1 1	contact to high/low-																									contact to
contact to harmful substance electric shock explosion 1 1 1 1 1 1 1 1 1 1 1 1 1																										high/low-
contact to harmful substance electric shock 1 1 1 1 1 1																										temperature
substance electric shock 1 1 1 1 1	contact to harmful																									contact to
electric shock explosion 1 1 1 1 1 1 1 1 1 2 2 explosion burst fire 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																										harmful
explosion 1	Substance																									substance
burst fire 1 1 1 fire traffic accident (public road) traffic accident (others) reaction to motion/improper motion others 1 1 1 1 1 2 2 others unclassifiable	electric shock		1	1			1																		3	electric shock
fire traffic accident (public road) traffic accident (others) reaction to motion/improper motion others unclassifiable	explosion	1																			1				2	explosion
traffic accident (public road) traffic accident (others) traffic accident (others) reaction to motion/improper motion others 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 others unclassifiable	burst																									burst
road) traffic accident (others) reaction to motion/improper motion traffic accident (others) 1	fire																1								1	fire
traffic accident (others) reaction to motion/improper motion traffic accident (others) reaction to motion/improper motion 1 1 1 1 2 others unclassifiable	traffic accident (public																									traffic accident
traffic accident (others) reaction to motion/improper motion others 1 1 1 1 2 others unclassifiable	road)																								1	(public road)
reaction to motion/improper motion others unclassifiable motion (others) reaction to motion/improper motion 1 1 1 2 others unclassifiable	tueffic a said out (ath aus)																									traffic accident
motion/improper motion	trainc accident (others)																									(others)
motion mot	reaction to																									reaction to
others 1 1 1 2 others unclassifiable unclassifiable	motion/improper																									motion/improper
unclassifiable unclassifiable	motion																									motion
	others									1				1											2	others
total 15 13 15 13 6 7 11 11 7 5 7 2 8 2 5 8 5 3 8 2 6 6 5 170 total	unclassifiable																									unclassifiable
	total	15	13	15	13	6	7	11	11	7	5	7	2	8	2	5	8	5	3	8	2	6	6	5	170	total

Causal (L) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	3 2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (L) agents
machine	4	6	6	5	1	2	2	3	1	2	2	1	4		3	2	2	1	3		1	1	3	55	machine
crane, conveying machine	4	2	3	3	3	2	3	6	5	2	5	1	1	1	1	1	2	2	3		3	3	1	57	crane, conveying machine
other equipment		1	2			2										1	1							7	other equipment
temporary buildings, establishments	1		1													2					1		1	6	temporary buildings, establishments
substance, material	2	2					2	1											1	1		1		10	substance, material
load																									load
environment	4	2	3	5	2	1	4	1		1			3	1	1	2			1	1	1	1		34	environment
others									1															1	others
total	15	13	15	13	6	7	11	11	7	5	7	2	8	2	5	8	5	3	8	2	6	6	5	170	total

Causal agents (middle) of fatal accidents in quarrying in 1999-2021

Causal (M) agents	1000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010	2020	2021	total	Causal (M)
ausai (M) ageilts	1999	2000	2001	2002	2003	2004	2003	2000	2007	2008	2009	2010	2011	2012	2013	2014	2013	2010	2017	2010	2019	2020	2021	totai	agents

engine																								engine
power transmission mechanism																								power transmission mechanism
woodworking machine																								woodworking machine
construction machine	4	2	4	5	1	2	2	1	1	2	2	1	4		2	2	2	1	3	1	1	3	46	construction machine
metal manufacturing machine																								metal manufacturing machine
general machine		4	2					2							1								9	general machine
mobile silviculture machine																								mobile silviculture machine
crane																								crane
conveying machine	3	2	3	3	3	2	3	6	5	2	5	1	1	1	1	1	2	2	3	3	3	1	56	conveying machine
vehicle	1																						1	vehicle
pressure vessel																								pressure vessel
chemical facilities																								chemical facilities
welding equipment			1													1							2	welding equipment

]	<u> </u>		<u> </u>		<u> </u>	<u> </u>		<u> </u>		<u> </u>			
kiln, caldron																								kiln, caldron
electric equipment						1																	1	electric equipment
human power machine,																								human power
tools																								machine, tools
tools		1	1			1										1							4	tools
other equipments,																								other equipments, facilities
temporary buildings, establishments	1		1												2					1		1	6	temporary buildings, establishments
hazards, harmful substances	1						1											1	1				4	hazards, harmful substances
materials	1	2					1	1													1		6	materials
load																								load
natural environment	4	2	3	5	2	1	4	1		1		3	1	1	2			1	1	1	1		34	natural environment
other causal agent																								other causal agent
no causal agent									1														1	no causal agent
unclassifiable																								unclassifiable

total	15	13	15	13	6	7	11	11	7	5	7	2	8	2	5	8	5	3	8	2	6	6	5	170	total	
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Causal agents (small) of fatal accidents in quarrying in 1999-2021

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	total	Causal (S) agents
engine																									engine
power transmission																									power transmission
mechanism																									mechanism
circular sawing																									circular sawing
machine																									machine
band sawing																									band sawing
machine																									machine
wood planer																									wood planer
machine																									machine
hollow chisel																									hollow chisel
mortiser, wood																									mortiser, wood
borer																									borer
chamfering																									chamfering
machine, router,																									machine, router,
woodworking																									woodworking
milling machine																									milling machine
chain saw																									chain saw
other woodworking																									other woodworking
machines																									machines

leveling,																							leveling,
transporting or	1	1	2	3	1	1		1	1	1			4	1	1		1		1	1	3	24	transporting or
loading machine																							loading machine
excavating machine	2	1	2	2			2				2	1		1	1	2		3				19	excavating machine
foundation work																							foundation work
machine																							machine
hardening machine																							hardening machine
demolition machine	1					1																2	demolition machine
vehicle for high lift																							vehicle for high lift
work																							work
other construction										1												1	other construction
machines										I												1	machines
lathe																							lathe
drill press, milling																							drill press, milling
machine																							machine
grinding machine,																							grinding machine,
buffing machine																							buffing machine
power press																							power press
forging pressure																							forging pressure
hammer																							hammer
shearing machine																							shearing machine
other metal																							other metal
manufacturing																							manufacturing
machines																							machines

centrifugal machine															centrifugal machine
mixer, grinder	2	2			1				1					6	mixer, grinder
roll machine (except printingroll machine)															roll machine (except printingroll machine)
injection molding															injection molding machine
food manufacturing machine															food manufacturing machine
printing machine															printing machine
industrial robot															industrial robot
other general power machines	2				1									3	other general power machines
felling machine															felling machine
mobile logging machine															mobile logging machine
skyline yarding machine															skyline yarding machine
other mobile silviculture machine															other mobile silviculture machine
crane															crane
mobile crane															mobile crane
derrick crane															derrick crane
elevator, lift															elevator, lift

cargo lifting																								cargo lifting
appliance																								appliance
gondola																								gondola
lumberyard																								lumberyard
equipment, logging																								equipment, logging
cableway																								cableway
simple skyline																								simple skyline
yarding equipment																								yarding equipment
other powered																								other powered
crane																								crane
truck	1	1	2	1	2	1	2	2	3	2	4	1	1	1			1	1	1	2			29	truck
forklift								1											1		1		3	forklift
railway equipment																								railway equipment
conveyor	2	1	1	2	1	1	1	3	2		1				1	1	1	1	1	1	2	1	24	conveyor
loader																								loader
straddle carrier																								straddle carrier
rough terrain hauler																								rough terrain hauler
other powered																								other powered
conveying machines																								conveying machines
cars, bus,	1																						1	cars, bus,
motorcycle	I																						ľ	motorcycle
railway vehicle																								railway vehicle
other vehicles																								other vehicles
boiler																								boiler

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

hand tool																		hand tool
ladder												1					1	ladder
slinging tool		1	1														2	slinging tool
other tools					1												1	other tools
other equipment,																		other equipment,
scaffolding																		scaffolding
timbering																		timbering
stairs, landing stage																		stairs, landing stage
opening																		opening
roof, beam, haze, crossbeam, principal rafter																		roof, beam, haze, crossbeam, principal rafter
working platform,											1						1	working platform,
passage	1										1					1	3	passage
building, establishment			1												1		2	building, establishment
other temporary buildings, establishments																		other temporary buildings, establishments
explosive substance	1					1							1	1			4	explosive substance
inflammable substance																		inflammable substance

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inflammable gas																					inflammable gas
harmful substance																					harmful substance
radiation																					radiation
other hazards,																					other hazards,
harmful substances																					harmful substances
metal material								1												1	metal material
lumber, bamboo																					lumber, bamboo
stone, sand,	1	2					1												1	5	stone, sand,
substance	I						ľ												ľ		substance
other materials																					other materials
load																					load
machine/equipment																					machine/equipment
as load																					as load
natural ground,	4	2	3	5	2	1	4	1	1		1	1		2		1	1	1	1	31	natural ground,
rock								•			<u> </u>					•	•		<u> </u>		rock
standing tree																					standing tree
water											2									2	water
abnormal																					abnormal
environment																					environment
high/cold																					high/cold
temperature																					temperature
environment																					environment
other environments													1							1	other environments
other causal agent																					other causal agent

										\Box															
no causal agent									1															1	no causal agent
unclassifiable																									unclassifiable
total	15	13	15	13	6	7	11	11	7	5	7	2	8	2	5	8	5	3	8	2	6	6	5	170	total

Workers age of fatal accidents in quarrying in 1999-2021

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Age
19 years old or less								1																1	19 years old or less
20-29	1	2	2		1			2					2		1	2						1		14	20-29
30-39	1		1	2		2		2	1	1	1					1				1				13	30-39
40-49	1	2	2	5	2		4	1	1		3		2		1			1	2		1	2		30	40-49
50-59	7	6	6	4	2	4	5	5	3	2	1	1	2	1	1	2	3		4		2	1	2	64	50-59
60 years old or more	5	3	4	2	1	1	2		2	2	2	1	2	1	2	3	2	2	2	1	3	2	3	48	60 years old or more
total	15	13	15	13	6	7	11	11	7	5	7	2	8	2	5	8	5	3	8	2	6	6	5	170	total

Workers' number of workplace of fatal accidents in quarrying in 1999-2021

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	total	Workers scale
9 workers or less	2	7	4	4	2	1	3	2	2	1	2		1	1	1	3	2		5	1	2	4	1	51	9 workers or less
10-29	12	5	9	6	4	6	7	9	5	4	4	2	6	1	4	4	2	2	2	1	4	2	3	104	10-29
30-49	1	1	2	3			1				1		1			1	1	1						13	30-49
50-99																			1				1	2	50-99

100-299																									100-299
300 workers or																									300 workers or
more																									more
total	15	13	15	13	6	7	11	11	7	5	7	2	8	2	5	8	5	3	8	2	6	6	5	170	total

Month of fatal accidents in quarrying in 1999-2021

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month
January	1	2	3	1		1	2								1			1	1		1			14	January
February		1	2	1	2		1						1			1	1	1	1			1		13	February
March		1	2	1		1				1	1		2		1						1			11	March
April	1	1		1		1	1	4	2			1				2		1					1	16	April
May	2			1		1	1		1	1			1	1		1			1			1		12	May
June	2		1		1		1	1		1	4		2				1		1			1	1	17	June
July	1		2	1			2	2		1	1	1		1	1		1		1					15	July
August	3	1	1		1	3		1	1							1				1				13	August
September				2			1	1									2		1	1	2	1		11	September
October	1	1	3	1	1		1	1							1				2		2		1	15	October
November	2	2	1	3			1		1				2			2						1	1	16	November
December	2	4		1	1			1	2	1	1				1	1						1	1	17	December
total	15	13	15	13	6	7	11	11	7	5	7	2	8	2	5	8	5	3	8	2	6	6	5	170	total

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Prefecture
Hokkaido		1					1										1							3	Hokkaido
Aomori											1					1								2	Aomori
lwate		1		1				1	1		1		1		1	1							1	9	lwate
Miyagi	1						2	1					1										1	6	Miyagi
Akita		1		1							1				1	1								5	Akita
Yamagata			2																			1		3	Yamagata
Fukushima	1								1	1					1				2					6	Fukushim
Ibaraki		1			1	2	2						1			1				1				9	Ibaraki
Tochigi								1								1		2			1			5	Tochigi
Gunma								1						1										2	Gunma
Saitama	1																							1	Saitama
Chiba																									Chiba
Tokyo				1																				1	Tokyo
Kanagawa					1					1														2	Kanagawa
Niigata						1																		1	Niigata
Toyama																									Toyama
Ishikawa	2																						1	3	Ishikawa
Fukui	1	1							1				1											4	Fukui
Yamanashi							1																	1	Yamanasl
Nagano																									Nagano
Gifu				1																				1	Gifu

Shizuoka		2		1		1	1			1									1		1			8	Shizuoka
Aichi	1		1							1			1	1								1		6	Aichi
Mie	1		1										1			1	1							5	Mie
Shiga	1	1																						2	Shiga
Kyoto					2			1	1		1						1					1		7	Kyoto
Osaka													1				1		1					3	Osaka
Hyogo			2			1			1		1	1												6	Hyogo
Nara							1																	1	Nara
Wakayama							1																	1	Wakayama
Tottori					1																			1	Tottori
Shimane		1			1					1					1									4	Shimane
Okayama	1		2																3					6	Okayama
Hiroshima	3			1				2			1					1					1	1		10	Hiroshima
Yamaguchi		1															1	1				1		4	Yamaguchi
Tokushima				1																				1	Tokushima
Kagawa						1		1																2	Kagawa
Ehime			1	1			1								1	1								5	Ehime
Kochi			1				1				1													3	Kochi
Fukuoka			3	1				2															1	7	Fukuoka
Saga		1	1																				1	3	Saga
Nagasaki								1					1						1	1	1			5	Nagasaki
Kumamoto	1	1		1																	1			4	Kumamoto
Oita	1			1																	1			3	Oita

Miyazaki			1																			1		2	Miyazaki
Kagoshima		1		2		1			2			1												7	Kagoshima
Okinawa																									Okinawa
total	15	13	15	13	6	7	11	11	7	5	7	2	8	2	5	8	5	3	8	2	6	6	5	170	total

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

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