Fatal and non-fatal accidents in general coal mining in Japan in 1999-2021

general coal mining industry Code No.020101

Type of accidents in general coal mining 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	3		1		2		1	1	1	1		1		1	1					1				14	fall from height
falling to same level	5	3	2											1						2				13	falling to same level
crash	1	2	5				2												1					11	crash
struck by flying or falling object	11	9	11	1			1			1		1			1					1			1	38	struck by flying or falling object
collapse	2	2	3																	1				8	collapse
crashed by	12	10	5																	1				28	crashed by
caught in/between	17	10	11										1		2	1								42	caught in/between
cut	1	1																						2	cut
injury to the sole of the foot	1	1	1																					3	injury to the sole of the foot
drown																									drown
contact to high/low- temperature		1																						1	contact to high/low- temperature

contact to harmful																						contact to
substance																						harmful
Substance																						substance
electric shock																						electric shock
explosion																						explosion
burst					1																1	burst
fire																						fire
traffic accident (public					1																1	traffic accident
road)					ľ																ı	(public road)
traffic accident																						traffic accident
(others)																						(others)
reaction to																						reaction to
motion/improper	5	5	8			1															19	motion/improper
motion																						motion
others																						others
unclassifiable		1																			1	unclassifiable
total	58	45	47	1	4	1	4	1	1	2	2	1	2	4	1		1	6		1	182	total

Causal agents (large) of fatal and non-fatal accidents in general coal mining in 1999-2021

Causal (L) agents	1000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010	2020	2021		Causal (L)
Causai (L) agents	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
machine	4	1	5		1								1		1									13	machine
crane, conveying																									crane,

machine	6	8	6		1		2							1	1			1			26	conveying
macrime																						machine
	12	12							_											_	22	other
other equipment	12	13	4		I				ı					I						1	33	equipment
ta mana a manu la villalia ma																						temporary
temporary buildings, establishments	7	4	7			1	1	1			1							1			23	buildings,
establistiments																						establishments
substance material	18	10	16	1						1							1	1			48	substance,
substance, material	10	10	10	ľ						'							'	'				material
load	5	2	2											1							10	load
environment	6	6	5		1		1			1	1		1					3			25	environment
others		1	2										1								4	others
total	58	45	47	1	4	1	4	1	1	2	2	1	2	4	1		1	6		1	182	total

Causal agents (middle) of fatal and non-fatal accidents in general coal mining 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																									engine
power transmission mechanism	2												1		1									4	power transmission mechanism
woodworking machine																									woodworking machine

construction machine	2			1										3	construction
															machine
metal manufacturing															metal
machine															manufacturing
															machine
general machine		1	5											6	general
															machine
mobile silviculture															mobile
machine															silviculture
															machine
crane		2	3		1									6	crane
conveying machine	6	6	3	1	1				1	1		1		20	conveying
conveying machine				•					•	•		•		20	machine
vehicle															vehicle
pressure vessel															pressure vessel
chemical facilities															chemical
chemical facilities															facilities
															welding
welding equipment															equipment
kiln, caldron															kiln, caldron
															electric
electric equipment															equipment
human power machine,															human power
tools	10	2	2											14	machine, tools

tools	2	6	1											1						1	11	tools
other equipments,		5	1		1				1												8	other equipments, facilities
temporary buildings, establishments	7	4	7			1	1	1			1							1			23	temporary buildings, establishments
hazards, harmful substances																						hazards, harmful substances
materials	18	10	16	1						1							1	1			48	materials
load	5	2	2											1							10	load
natural environment	6	6	5		1		1			1	1		1					3			25	natural environment
other causal agent																						other causal agent
no causal agent		1	2										1								4	no causal agent
unclassifiable																						unclassifiable
total	58	45	47	1	4	1	4	1	1	2	2	1	2	4	1		1	6		1	182	total

Causal agents (small) of fatal and non-fatal accidents in general coal mining 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 mechanism							1	1					2	power transmission mechanism
circular sawing machine														circular sawing
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														chamfering machine, router, woodworking
milling machine														milling machine
other woodworking machines														other woodworking machines
leveling, transporting or loading machine														leveling, transporting or loading machine
excavating machine														excavating machine
foundation work machine														foundation work machine

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hardening machine															hardening machine
demolition machine															demolition machine
vehicle for high lift work															vehicle for high lift work
other construction machines			1											1	other construction machines
lathe															lathe
drill press, milling machine															drill press, milling machine
grinding machine, buffing machine															grinding machine, buffing machine
power press															power press
forging pressure hammer															forging pressure hammer
shearing machine															shearing machine
other metal manufacturing machines															other metal manufacturing machines
centrifugal machine															centrifugal machine
mixer, grinder															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		5											5	other general
power machines														power machines
felling machine														felling machine
mobile logging														mobile logging
machine														machine
skyline yarding														skyline yarding
machine														machine
other mobile														other mobile
silviculture machine														silviculture machine
crane		1											1	crane
mobile crane				1									1	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 yarding equipment														simple skyline yarding equipment
other powered crane		2											2	other powered crane
truck		1	1										2	truck
forklift											1		1	forklift
railway equipment		1											1	railway equipment
conveyor		1		1				1					3	conveyor
loader									1				1	loader
straddle carrier														straddle carrier
rough terrain hauler														rough terrain hauler
other powered conveying machines														other powered conveying machines
cars, bus, motorcycle														cars, bus, motorcycle
railway vehicle														railway vehicle
other vehicles														other vehicles
boiler														boiler
pressure vessel														pressure vessel
other pressure vessels														other pressure vessels
chemical facilities														chemical facilities

gas welding														gas welding
equipment														equipment
arc welding														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														transmission
electric power														electric power
facilities														facilities
other electrical														other electrical
equipment														equipment
human power		1											1	human power
cranes														cranes
human power														human power
hauling equipment														hauling equipment
human power														human power
machine														machine
hand tool		1											1	hand tool
ladder								1					1	ladder
slinging tool														slinging tool
other tools		1										1	2	other tools

other equipment,		1	1			1								3	other equipment,
facilities															facilities
scaffolding															scaffolding
timbering												1		1	timbering
stairs, landing stage		1												1	stairs, landing stage
opening															opening
roof, beam, haze,															roof, beam, haze,
crossbeam,								1						1	crossbeam,
principal rafter															principal rafter
working platform,		3			1									4	working platform,
boot board														i e	boot board
passage		3												3	passage
building,				1										1	building,
establishment				ľ										ļ <u> </u>	establishment
other temporary															other temporary
buildings,															buildings,
establishments															establishments
explosive substance															explosive substance
inflammable															inflammable
substance															substance
inflammable gas															inflammable gas
harmful substance															harmful substance
radiation															radiation
other hazards,															other hazards,

harmful substances																			harmful substances
metal material		9																9	metal material
lumber, bamboo		2																2	lumber, bamboo
stone, sand,		5					1							1	1			8	stone, sand, substance
other materials																			other materials
load		1									1							2	load
machine/equipment as load		1																1	machine/equipment as load
natural ground, rock		5	1	1			1	1		1					2			12	natural ground,
standing tree																			standing tree
water																			water
abnormal environment																			abnormal environment
high/cold temperature environment																			high/cold temperature environment
other environments															1			1	other environments
other causal agent																			other causal agent
no causal agent		2								1								3	no causal agent
unclassifiable																			unclassifiable
total		47	4	4	1	1	2	2	1	2	4	1		1	6		1	77	total

Workers age of fatal and non-fatal accidents in general coal mining 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																			2	19 years old or less
20-29	4	1	1				1							1										8	20-29
30-39	10	5	9				1						1		1					1				28	30-39
40-49	24	23	22		2	1	1					2			1								1	77	40-49
50-59	17	16	15	1	1		1	1						1	2				1	4				60	50-59
60 years old or	2								1	2						1				1				7	60 years old or
more									•							'				'					more
total	58	45	47	1	4	1	4	1	1	2		2	1	2	4	1			1	6			1	182	total

Workers' number of workplace of fatal and non-fatal accidents in general coal mining 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			3		2		1								1									7	9 workers or less
10-29	11	3	1	1	1				1	2			1		1				1	2				25	10-29
30-49		4	1					1						2	1					1				10	30-49
50-99	11	8	4		1		1					1			1									27	50-99
100-299	13	8	7																	3			1	32	100-299
300 workers or more	23	22	31			1	2					1				1								81	300 workers or more
total	58	45	47	1	4	1	4	1	1	2		2	1	2	4	1			1	6			1	182	total

Month of fatal and non-fatal accidents in general coal mining 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	5	5	2				1																	13	January
February	7	7	4							1					1									20	February
March	2	2	5																				1	10	March
April	6	4	6				1								1					2				20	April
May	7	2	5							1		1		1										17	May
June	3	4	7		1				1						1									17	June
July	6	4	1	1	2																			14	July
August	4	3	2			1								1						1				12	August
September	5	1	5		1			1					1			1								15	September
October	6	4	4				1					1			1					1				18	October
November	5	5	6																	1				17	November
December	2	4					1												1	1				9	December
total	58	45	47	1	4	1	4	1	1	2		2	1	2	4	1			1	6			1	182	total

Prefecture of fatal and non-fatal accidents in general coal mining in 1999-2021

Prefecture 1	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 4	4	4	3		1		2			2		1			1	1			1	3			1	24	Hokkaido
Aomori																									Aomori

lwate										1					1		lwate
Miyagi																	Miyagi
Akita																	Akita
Yamagata																	Yamagata
Fukushima																	Fukushima
Ibaraki																	Ibaraki
Tochigi		1	1												2	2	Tochigi
Gunma													1		1		Gunma
Saitama																	Saitama
Chiba			1												1		Chiba
Tokyo													1		1		Tokyo
Kanagawa																	Kanagawa
Niigata																	Niigata
Toyama																	Toyama
Ishikawa																	Ishikawa
Fukui																	Fukui
Yamanashi																	Yamanashi
Nagano																	Nagano
Gifu																	Gifu
Shizuoka																	Shizuoka
Aichi																	Aichi
Mie	1			1			1	1	1	2					7	·	Mie
Shiga																	Shiga

Kyoto																Kyoto
Osaka													1		1	Osaka
Hyogo										1					1	Hyogo
Nara																Nara
Wakayama																Wakayama
Tottori																Tottori
Shimane																Shimane
Okayama																Okayama
Hiroshima																Hiroshima
Yamaguchi																Yamaguch
Tokushima	3														3	Tokushima
Kagawa				1											1	Kagawa
Ehime																Ehime
Kochi																Kochi
Fukuoka					1										1	Fukuoka
Saga																Saga
Nagasaki	50	41	43				1								135	Nagasaki
Kumamoto																Kumamot
Oita						1									1	Oita
Miyazaki																Miyazaki
Kagoshima																Kagoshim
Okinawa																Okinawa

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 general coal mining in Japan in 1999-2021

general coal mining industry Code No.020101

Type of fatal accidents in general coal mining 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																									fall from height
falling to same level																									falling to same
laming to same level																									level
crash																									crash
struck by flying or																									struck by flying
falling object																									or falling object
collapse																									collapse
crashed by		1																						1	crashed by
																									caught

caught in/between	1											1	in/between
cut													cut
injury to the sole of the foot													injury to the sole of the foot
drown													drown
contact to high/low- temperature													contact to high/low- temperature
contact to harmful substance													contact to harmful substance
electric shock													electric shock
explosion													explosion
burst													burst
fire													fire
traffic accident (public road)													traffic accident (public road)
traffic accident (others)													traffic accident (others)
reaction to motion/improper motion													reaction to motion/improper motion
others													others
unclassifiable													unclassifiable

		\Box				\Box		4											
total	2																2	total	

Causal agents (large) of fatal accidents in general coal mining 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) agents
machine																									machine
crane, conveying machine		1																						1	crane, conveying machine
other equipment		1																						1	other equipment
temporary buildings, establishments																									temporary buildings, establishments
substance, material																									substance, material
load																									load
environment																									environment
others																									others
total		2																						2	total

Causal agents (middle) of fatal accidents in general coal mining 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																									engine
power transmission mechanism																									power transmission mechanism
woodworking machine																									woodworking machine
construction machine																									construction machine
metal manufacturing machine																									metal manufacturing machine
general machine																									general machine
mobile silviculture machine																									mobile silviculture machine
crane																									crane
conveying machine		1																						1	conveying machine
vehicle																									vehicle
pressure vessel																									pressure vessel
chemical facilities																									chemical

													facilities
welding equipment													welding
weiding equipment													equipment
kiln, caldron													kiln, caldron
electric equipment													electric
													equipment
human power machine,	1											1	human power
tools													machine, tools
tools													tools
other equipments,													other
facilities													equipments,
													facilities
temporary buildings,													temporary
establishments													buildings, establishments
hazards, harmful													hazards, harmful
substances													substances
materials													materials
load													load
													natural
natural environment													environment
													other causal
other causal agent													agent

no causal agent													no causal
no causar agent													agent
unclassifiable													unclassifiable
total	2											2	total

Causal agents (small) of fatal accidents in general coal mining 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
leveling,												$\vdash\vdash$	leveling,
transporting or													transporting or
loading machine													loading machine
excavating machine													excavating machine
foundation work													foundation work
machine													machine
hardening machine													hardening machine
demolition machine													demolition machine
vehicle for high lift													vehicle for high lift
work													work
other construction													other construction
machines													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													mixer, grinder
roll machine (except													roll machine (except
printingroll													printingroll
machine)													machine)
injection molding													injection molding
machine													machine
food manufacturing													food manufacturing
machine													machine
printing machine													printing machine
industrial robot													industrial robot
other general													other general
power machines													power machines
felling machine													felling machine
mobile logging													mobile logging
machine													machine
skyline yarding													skyline yarding
machine													machine
other mobile													other mobile
silviculture machine													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													truck
forklift													forklift
railway equipment													railway equipment
conveyor	1											1	conveyor
loader													loader
straddle carrier													straddle carrier
rough terrain hauler													rough terrain hauler
other powered													other powered
conveying machines													conveying machines
cars, bus,													cars, bus,
motorcycle													motorcycle

1	 												
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													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													transmission
electric power													electric power
facilities													facilities
other electrical													other electrical
equipment													equipment
human power	1											1	human power
cranes													cranes

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

establishments													establishments
explosive substance													explosive substance
inflammable													inflammable
substance													substance
inflammable gas													inflammable gas
harmful substance													harmful substance
radiation													radiation
other hazards,													other hazards,
harmful substances													harmful substances
metal material													metal material
lumber, bamboo													lumber, bamboo
stone, sand,													stone, sand,
substance													substance
other materials													other materials
load													load
machine/equipment													machine/equipment
as load													as load
natural ground,													natural ground,
rock													rock
standing tree													standing tree
water													water
abnormal													abnormal
environment													environment
high/cold													high/cold

temperature													temperature
environment													environment
other environments													other environments
other causal agent													other causal agent
no causal agent													no causal agent
unclassifiable													unclassifiable
total	2											2	total

Workers age of fatal accidents in general coal mining 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																									19 years old or less
20-29																									20-29
30-39																									30-39
40-49		1																						1	40-49
50-59		1																						1	50-59
60 years old or																									60 years old or
more																									more
total		2																						2	total

Workers' number of workplace of fatal accidents in general coal mining 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	7019		total	Workers scale

9 workers or less													9 workers or less
10-29	1											1	10-29
30-49													30-49
50-99													50-99
100-299													100-299
300 workers or	1											1	300 workers or
more	•											_	more
total	2											2	total

Month of fatal accidents in general coal mining 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																									January
February		1																						1	February
March																									March
April																									April
May																									May
June																									June
July																									July
August																									August
September																									September
October																									October
November		1																						1	November

December													December
total	2											2	total

Prefecture of fatal accidents in general coal mining 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																									Hokkaido
Aomori																									Aomori
lwate																									lwate
Miyagi																									Miyagi
Akita																									Akita
Yamagata																									Yamagata
Fukushima																									Fukushima
Ibaraki																									Ibaraki
Tochigi																									Tochigi
Gunma																									Gunma
Saitama																									Saitama
Chiba																									Chiba
Tokyo																									Tokyo
Kanagawa																									Kanagawa
Niigata																									Niigata
Toyama																									Toyama
Ishikawa																									Ishikawa

Fukui												Fukui
Yamanashi												Yamanashi
Nagano												Nagano
Gifu												Gifu
Shizuoka												Shizuoka
Aichi												Aichi
Mie												Mie
Shiga												Shiga
Kyoto												Kyoto
Osaka												Osaka
Hyogo												Hyogo
Nara												Nara
Wakayama												Wakayama
Tottori												Tottori
Shimane												Shimane
Okayama												Okayama
Hiroshima												Hiroshima
Yamaguchi												Yamaguch
Tokushima												Tokushima
Kagawa												Kagawa
Ehime												Ehime
Kochi												Kochi
Fukuoka												Fukuoka

Saga													Saga
Nagasaki	2											2	Nagasaki
Kumamoto													Kumamoto
Oita													Oita
Miyazaki													Miyazaki
Kagoshima													Kagoshima
Okinawa													Okinawa
total	2											2	total

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