

The Global Fire Monitoring Center (GFMC)

13th GFMC / IWPM / UNISDR Global Landscape Fire Network Bulletin No. 26 – 15 September 2021

Global Landscape Fire Fatalities and Damages Report 2020

The evaluation of fatalities caused by landscape fires in 2020 at global level revealed that 621 people were killed worldwide compared to 235 fatalities in 2019, 354 fatalities in 2018, 127 in 2016, and 198 fatalities and in 2015.

Compared to previous years, this is a huge number of fatalities compared to other years. It is important to indicate that 417 people died due to wildfires in Australia during the fire season alone.



Tel +49-761-808011 Fax +49-761-808012 Georges-Koehler-Allee 75 79110 Freiburg, Germany www.gfmc.online fire@fire.uni-freiburg.de

13th Annual Global Landscape Fire Fatalities and Damages Report – 2020 Preliminary¹

The Global Landscape Fire Network Bulletin is published by the Global Fire Monitoring Center $(GFMC)^2$, the former International Forest Fire News $(IFFN)^3$, the International Wildfire Preparedness Mechanism $(IWPM)^4$ and the Global Wildland Fire Network. GFMC and GWFN are serving the United Nations International Strategy for Disaster Reduction (UNISDR) in the frame of the Science & Technology Partnership⁵ and a Voluntary Commitment to the implementation of the Sendai Framework.⁶

This 26th Issue of the Global Landscape Fire Network Bulletin (former *Global Wildland Fire Network Bulletin*) provides the final draft of the *12th Annual Global Landscape Fire Fatalities and Damages Report*, covering the year 2020. This report is based on the evaluation of media (newspaper, radio, and TV broadcasts) published on the internet, as well as agency reports and correspondents of the Global Wildland Fire Network from throughout the world.

The designation of this report series is renamed since 2016, since GFMC has now included other damages and consequences of wildfires, particularly those that are affecting people, property, infrastructures, and livelihood of people, including damages to agricultural products and livestock. Since only a small fraction of wildfire-related accidents is reported through those media that are published on the web, we presume that our attempt to compile a global statistical database is still very incomplete and may only scratch the surface, on a global level. However, among countries that do regularly report the negative impacts of wildfires (e.g. injuries and property damages), the data collected by the GFMC can be considered reliable and consistent with many official estimates. Unlike the World Almanac and other databases such as the International Disaster Database of the Centre for Research on the Epidemiology of Disasters (CRED)⁷, GFMC aims at identifying all individual incidents that have been reported.

¹ Data included in this report is often cross-referenced to other annual regional or national reports, some of which have yet to be released. This report will be updated with any new data at a later date. ² <u>http://www.gfmc.online/</u> Note: IFFN production has been phased out in 2015.

³ http://www.gfmc.online/iffn/iffn.htm

⁴ http://www.gfmc.online/iwpm/index.htm

⁵ http://www.gfmc.online/GlobalNetworks/globalNet.html

⁶ https://sendaicommitments.unisdr.org/commitments/20190222_001

⁷ <u>www.cred.be</u> - Note: the CRED defines a disaster as "a situation or event, which overwhelms local capacity, necessitating a request to a national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering". For a disaster to be considered, at least one of the following criteria must be met: (a) 10 or more people reported killed; (b) 100 or more people reported affected, (c) declaration of a state of emergency, or (d) call for international assistance. The GFMC does not follow these criteria as fatalities or injuries caused by wildfires are usually below these thresholds, and the high number of incidents would otherwise not be recorded at all. The CRED reports do not provide explicit data on wildfire-related incidents.

At the end of this report, web links are provided to publications / reports reporting injuries and fatalities. The short incident notes (by country, in alphabetic order) are taken from

- Detailed reports that have been published on the dedicated GFMC web page "Recent Media Highlights on Fire, Policies, and Politics – Section 4 Current News Regularly selected by GFMC" between January and December 2017 (<u>https://gfmc.online/media-highlights-on-fire-policies-and-politics.html</u>) and
- Other reports, which have been stored in the GFMC database but were not published online. Links or detailed information on any event included in this report can be provided upon request.

<u>Note</u>: Due to copyright restrictions, the GFMC is not entitled to publish / mirror all incidence reports freely accessible on the GFMC website. Institutions or individuals interested to work with GFMC in the scientific evaluation of data may request password-protected access to the files published on the web page "Recent Media Highlights on Fire, Policies, and Politics – Section 4 Current News Regularly selected by GFMC" (since 1999): https://gfmc.online/media-highlights-on-fire-policies-and-politics.html.

Freiburg, Germany, 15 September 2021

Global Fire Monitoring Center (GFMC) Staff

Fernando Casillas, Enkhjin Ganbold, Esteban Beltrán, Oyunsanaa Byambasuren and Johann Georg Goldammer

Table of Contents

SUMMARY	5
OVERVIEW OF FATALITIES	6
EVACUATIONS	11
DAMAGES	13
ANNEX I: PEOPLE KILLED AND INJURED BY WILDLAND FIRES – OVERVIEW BY COUNTRIES	
ANNEX II: PREVIOUS YEARS' REPORTS	23

List of figures

Figure 1 Worldwide deaths caused by wildfires (2009-2020)	6
Figure 2 Worldwide injuries caused by widlfires (2009-2020)	
Figure 3 Number of worldwide line-of-duty firefighter deaths in 2020 by category*	7
Figure 4 Number of worldwide line-of-duty firefighter injuries in 2020 by category*	8
Figure 5 Percentage of worldwide line-of-duty firefighter deaths in 2020 by category*	8
Figure 6 Percentage of worldwide line-of-duty firefighter injuries in 2020 by category*	9

List of tables

Table 1. Summary global wildland fire fatalities report 2020: All people killed and injured	
due to wildfire	
Table 2 Summary of firefighters killed and injured in 2020 by country	9
Table 3 Summary of aircraft personnel killed and injured in 2020 during firefighting	
operations	9
Table 4 Summary of all people killed and injured by wildland fires in 2020 by continents a	
countries	10
Table 5 Summary of evacuation cases by country	11
Table 6 Summary of structural losses	13
Table 7 Summary of vehicle losses	15
Table 8 Summary of agricultural losses	16
Table 9 Summary of protected areas affected by wildfires	16
Table 10 Summary of reported economic losses in USD	17

Summary

The 13th Annual Global Landscape Fire report contains the summary of fatalities, all the structural and agricultural losses, evacuation cases, protected areas affected by wildland fires and economic impact for the year of 2020. However, the detailed numbers cannot be precise due to the fact that some media reports did not state the exact numbers of the above-mentioned losses as well as the injured people.

The fatalities report details that, globally 621 people lost their precious lives, 4,672 people were injured and total of 5,295 people from 21 countries were affected by the wildfire in 2020. In the case of Australia's fire season (from November 2019 to March 2020), 417 people were killed, 4,456 people were injured and 1 billion animals perished. Therefore, it is not possible to state the exact number of killed and injured people, as well as the other losses in calendar year 2020. The causes of the deaths of the citizens and the firefighters include burning, medical emergency, unspecified/unknown, vehicle related, fire related, and aircraft related. The causes of injuries are burning, fire related, heat exhaustion, aircraft related, struck by natural hazards (falling trees, rocks etc.), unspecified/unknown, road accidents, and other.

In total, more than 5,175 private homes were destroyed and more than 379 homes in 23 countries were damaged by wildfires in 2020. Additionally, more than 8,284 outbuildings, and approximately 15,000 structures were destroyed and over 4,000 structures were damaged in 22 countries. More details are illustrated in Table 6.

The number of reported vehicles lost was more than 3,500, 10 motorcycles, and 43 unknown vehicles. As well as unknown number of RV/travel trailer, fire truck, tractor/farm equipment. The above-mentioned vehicle losses were reported in 5 countries. More details are shown in Table 7.

Over 1000 fruit trees were lost in Algeria, 40 ha of farmland and 1,500 ha of agricultural crops were lost in New Zealand and Peru respectively.

There were in a total of 192 evacuation cases reported in 22 countries. There were more than 315,167 people had to flee their home, but 14 cases of unknown people and more than 10,988 homes/ families had to be evacuated. Some animals such as goats, lambs, and pigs from the farm in Australia, and more than 100 animals from a zoo in the USA had to be evacuated. Due to the wildfires, all the primary schools and 2 universities as well as 8 airports in the region of Spain were closed. Riverview elementary school in the USA was closed too.

2 cases of protected areas (Reserve and National Park) affected by wildfires were in Australia. The size of the first case is unknown, but the second case covered 82,500 ha.

The known economic impacts are USD \$20 million and USD \$14.4 million in Australia and the USA respectively for the suppression cost.

Overview of fatalities

Detailed numbers of all killed and injured people as a result of wildland fires in 2020 by countries, regions and continents are illustrated in this section.

Regions	Killed	injured	total
Africa	10	10	20
Asia	30	3	33
Australia	418	4456	4874
Europe	19	25	44
Middle East	7	80	87
North America	133	84	217
South America	4	14	18
Worldwide	621	4672	5293

Table 1. Summary global wildland fire fatalities report 2020: All people killed and injured due to wildfire.

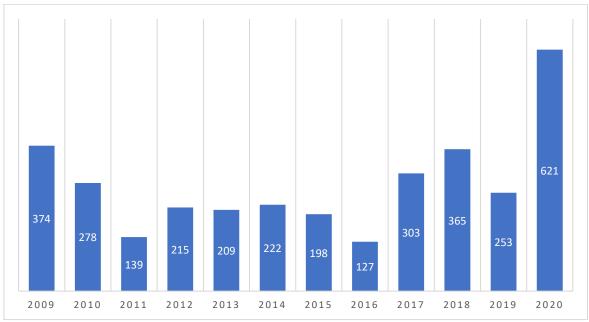


Figure 1. Worldwide deaths caused by wildfires (2009-2020)

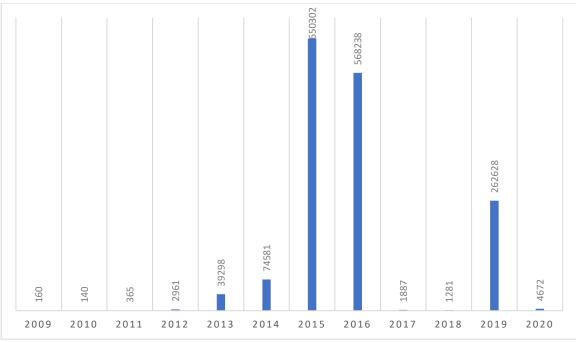


Figure 2. Worldwide injuries caused by wildfires (2009-2020)

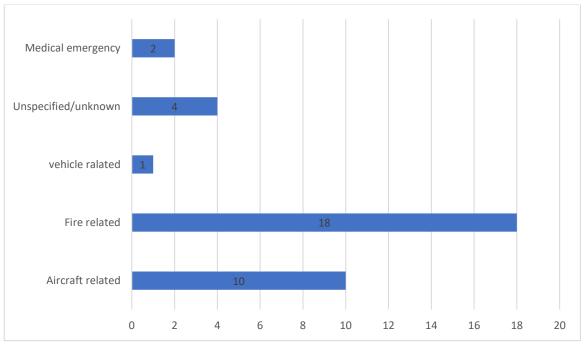


Figure 3. Number of worldwide line-of-duty firefighter deaths in 2020 by category st

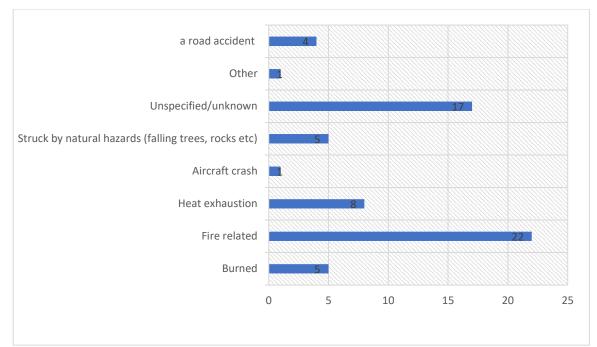


Figure 4. Number of worldwide line-of-duty firefighter injuries in 2020 by category*

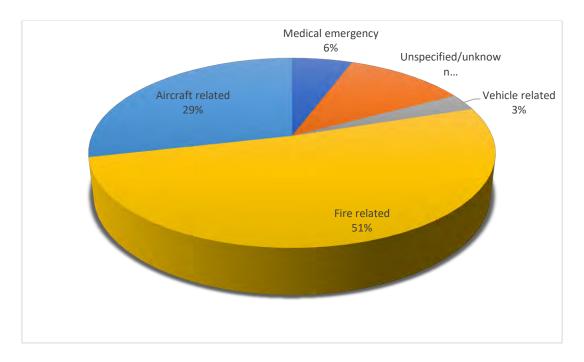


Figure 5. Percentage of worldwide line-of-duty firefighter deaths in 2020 by category*

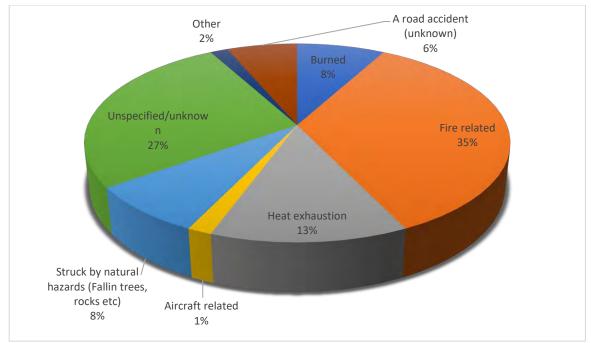


Figure 6. Percentage of worldwide line-of-duty firefighter injuries in 2020 by category*

Country	Firefighters killed	Firefighters injured	Total
Argentina	1	-	1
Australia	3	-	3
China	18	-	18
Peru		4	4
Portugal	2	4	6
Turkey	3	-	3
Spain		1	1
USA	1	54	55
Total	28	63	91

Table 2. Summary of firefighters killed and injured in 2020 by country

Table 3. Summary of aircraft personnel killed and injured in 2020 during firefighting operations.

Country	Aircraft personnel killed	Aircraft personnel injured
Portugal	1	-
USA	6	-
TOTAL	7	-

* Line-of-duty deaths and injuries of all firefighters (regardless of type of fire department / agency) as a result of active duty in connection with landscape fires including responding to or returning from, or, as a result of overexertion in connection with training or suppression activities.

Table 4. Summary of all people killed and injured by wildland fires in 2020 by continents and countries.

Africa	Killed	Injured	Total
Algeria	4	10	14
South Africa	1	-	1
Zimbabwe	5	-	5
Total	10	10	20

Asia	Killed	Injured	Total
China	19	-	19
India	8	3	11
Iran	1	-	1
Syria/Lebanon/Israel	3	70	73
Thailand	3	-	3
Total	34	73	107

Australia	Killed	Injured	Total
Australia	418	4,456	4,874
Total	418	4,456	4,874

Europe	Killed	Injured	Total
Portugal	3	7	9
Spain	-	1	1
Ukraine	16	17	33
Turkey	3	10	13
Total	22	35	56

North America	Killed	Injured	Total
Guatemala	2	-	2
Mexico	11	-	11
USA	120	84	204
Total	133	84	217

South America	Killed	Injured	Total
Argentina	1	-	1
Ecuador	3	10	13
Peru	-	4	4
Total	4	14	18

Evacuations

 Table 5.
 Summary of evacuation cases by country

Evacuation category Country	Number of cases	Number of people	Number of cases of unknown people	Number of cases of unknown residences	Number of homes/ families	Universities/ Schools/ Daycares	Train/ Airport/ Flight services disrupted	Number of neighborhoods/ villages	Road/ highway closure	Other
Argentina	1								1	
										Goats, lambs, and pigs had been
Australia	5	7,000	2						2	evacuated
Canada	8	570	2	1					1	
China	1	1,200								
Cyprus	1								1	
France	1	9,000								
Greece	5	2900	1					3	1	
India	1		1							
Iran	1	175								
Israel	2	10,200								
Italy	1				60					
Luxemburg	1	10								
Mexico	1				17					

Netherlands	1	4,200			50					
New Zealand	2				100				1	
Russia	1				All residence					
South Africa	1								1	
Spain	6	5180			4	All primary schools and 2 universities closed	8 airports		1	
Turkey	3	40	1					2		
UK	1	100								
Ukraine	4	203						1		
USA	144	274,264	7		10,757	Riverview elementary school		2	92	More than 100 animals from the zoo, unknown number of horses
Total	192	315,167	14	1	10988			8	100	

Damages

 Table 6.
 Summary of structural losses

category country	Residence Destroyed	Residence Damaged	2nd Home or Cabin Damaged / Destroyed	Commerical Building / Business Destroyed	Commerical Building / Business Damaged	Outbuilding Destroyed	Outbuilding Damaged	Shed / Storage/ Barn	Other Structure/ unknown	other
Algeria										
Australia	2800					3221		2 barns	Landmark structure (hut) got destroyed, 1 primary school	18 million people lost job, 1 billion animals perished, many livestock died
	2800		6			3221		2 Darris		
Canada China			0						2	
Cyprus										
France	1							1	combine harvester	
Ghana										170 farm land
Greece		10								
										more than one hundred hectares of newly planted forest
Ireland										

Luxemburg 2 5 2 1 2 1	I	1			I	l	I	I		l
Mexico 2 5 Image: constraint of the second of the se	Syria	unk				unk				
NetherlandsImage: secondary buildings; 150 -year-old pices of transcontinental railroad histor; 43 power poles destroyed, a carImage: secondary buildings; 150 -year-old pices of transcontinental railroad histor; 43 power poles destroyed, a carImage: secondary buildings; 150 -year-old pices of transcontinental railroad histor; 43 power poles destroyed, a carImage: secondary buildings; 150 -year-old pices of transcontinental railroad histor; 43 power poles destroyed, a car	Luxemburg									2 ha of forest
New ZealandImage: constraint of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged of the secondary buildings; 150 year- old pictory at an anged on ange	Mexico	2	5							
PeruImage: secondary buildings; story ear old pices of transcontinental railroad history; 43 power poles destroyed; a carImage: secondary buildings; story ear old pices destroyed; a carImage: secondary buildings; secondary buildings; story ear old pices destroyed; a carImage: secondary buildings; secondary buildings; second	Netherlands									
Portugal 12 Image: Constraint of the second se	New Zealand								50	
RussiaImage: second part of the second part o	Peru									
South Africa5037111A tunnel closedSpainImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedTurkeyImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedUkraineImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedUkraineImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedUkraineImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedUkraineImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedImage: Constraint of the closedUkraineImage: Constraint of the closedImage: Constra	Portugal		12							
South Africa5037 <t< th=""><th>Russia</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	Russia									
Turkey20Image: Constraint of the second of the secon	South Africa	503	7							
Ukraine 89 Image: Construction of the second s	Spain								Shopping complex	
Ukraine 89 Image: Construction of the second of the s	Turkey		20							
4813 Fruit shed 10,676 structures destroyed, 4221 structures damaged; 4200 structures destroyed and damaged one primary structure and multiple secondary buildings; 150 -year- old pieces of transcontinental railroad history; 43 power poles destroyed; a car Interstate closure; fire engine damaged			89			250				
post office, City Hall, library destroyed; 2- 3 acres in residence						4813		Fruit shed	destroyed, 4221 structures damaged; 4200 structures destroyed and damaged one primary structure and multiple secondary buildings; 150 -year- old pieces of transcontinental railroad history; 43 power poles destroyed; a car garage; fire station, post office, City Hall, library destroyed; 2-	closure; fire engine
	USA	1859	246	4	31		5		area; Apartments	

								building that contained two duplexes destroyed	
Zimbabwe									1 miilion ha of land
Total	5175	379	6	4	31	8284	5		

Table 7. Summary of vehicle losses

Category Country	Car / Truck Destroyed	Car / Truck Damaged	RV / Travel Trailer	Commercial Truck	Fire Truck / Vehicle	ATV / Motorcycle	Tractor / Farm Equipment	Other Vehicle
Greece					1			
South Africa					4			
Spain								
Turkey		5						
υκ								
Ukraine					1			
	More					10		
	than							
USA	3500		Unknown		6 (unknown)		Unknown	43 (Unknown)

Table 8. Summary of agricultural losses

Evacuation category Country	Hay Bales / Rounds	Plantation (ha)	Agricultural Crops (ha)	Farmland (ha)
Algeria		Over 1000 fruit trees		
New Zealand				40
Peru			1500	
USA	25 bales of hay			

Table 9. Summary of protected areas affected by wildfires

Country	Closed area	Park	Туре	Affected area (ha)
Australia	14	Nelson, Kaiteriteri, Riwaka, Brightwater, Wairoa Gorge, Tapawera, Aniseed Valley, Mt Richmond Forest Park, Te Araroa Trail, Abel Tasman National Park, Kahurangi National Park, Nelson Lakes National Park, Nelson City Council reserves, Tasman District Council areas	Reserve, National Park	Unknown
Australia			National Park	82,500

Table 10. Summary of reported economic losses in USD

Evacuation category	Suppression Cost	Damages in USD \$	Damages	Link	Total
Country					
				https://www.theguardian.com/australia- news/2020/jan/04/australia-fires-death-toll-rises-and-six- people-missing-as-pm-calls-in-military	
Australia	20 million				\$20 million
USA		100,000		https://www.wpxi.com/news/trending/ brush-fire-started-by-fireworks-spreads-apartment-building- firefighters-say/JIIVPSBAS5F4NGPCETMSJJWOAA/	\$100,000
USA	14.4 million		31 structures	https://wildfiretoday.com/2020/12/12/officials-report-31- structures-were-destroyed-in-the-bond-fire-in-socal/	\$14.4 million
Total	34.4 million	100,000			\$34.5 million

Annex I: People killed and injured by wildland fires – Overview by countries

Some of the comment sections are left empty due to the sources that are no longer available on the internet.

Country	Date	Civilian Death	Civilian Injury	Firefighter Death	Firefighter Injury	Aviation Death	missing people	Sources	Cause	Comments
Algeria	08.11.20	4	10					https://www.aa.com.tr/en/africa/ forest-fires-kill-2-in-algeria/2035376	unk	21 forest fires raged in several western provinces on Friday and Saturday. Ten people were hospitalized and four have died, according to Algeria's civil defense agency. https://www.morocccoworldnews.com/2020/11/325250/algeria-deadly-forest- fires-possible-result-of-criminal-acts (updated source)*
	09.11.20							https://www.moroccoworldnews.com/2020/11/325250/algeria -deadly-forest-fires-possible-result-of-criminal-acts	fire related	21 forest fires raged in several western provinces on Friday and Saturday. Ten people were hospitalized and four have died, according to Algeria's civil defense agency.
Argentina	25.12.20			1				https://www.diarionorte.com/200008-fallecio-un-bombero -voluntario-de-margarita-belen	decompensation	Officer Ramón Arsenio Pérez, a member of the Margarita Belén Volunteer Firefighters Civil Association, died today after suffering a decompensation when intervening in a forest fire. He was 66 years old.
Australia	01.01.20							https://www.theguardian.com/australia-news/2019/dec/31/australia -bushfires-towns-devastated-and-lives-lost-as-blazes-turn-the-sky-red		emergency services officials held grave fears for a third person
	05.01.20						6	https://www.theguardian.com/australia-news/2020/jan/04/australia- fires-death-toll-rises-and-six-people-missing-as-pm-calls-in-military		23 people killed, The bodies of the two people, identified as Dick Lang, 78, a bush pilot and safari operator, and his son Clayton, 43. Aslo 6 people missing
	11.01.20							page no longer available		1 person badly burnt
	18.01.20							https://www.propertycasualty360.com/2020/01/16/australias-wildfire- crisis-key-numbers-behind-the-disaster/?slreturn=20200020213224		Damage count so far: homes destroyed, acres burnt, people deseased, etc
	19.01.20							https://www.propertycasualty360.com/2020/01/16/australias-wildfire- crisis-key-numbers-behind-the-disaster/?slreturn=20200020213224		Damage count so far: homes destroyed, acres burnt, people deseased, etc
	22.01.20			3				https://www.canberratimes.com.au/story/6595395/cause-of-fatal-snowy-monaro-air- tanker-crash-unclear/	firefighing plane crash	All three crew members on board were residents of the United States. NSW Police said three men, aged 42, 43 and 45, were believed to be on board at the time of the crash, but they had not been formally identified.
	26.01.20							https://gotechdaily.com/victim-of-a-bush-fire-on-the-south-coast-identified/		
	22.03.20	414	4456					https://www.dailymail.co.uk/news/article-8136847/Smoke-pollution -Australias-bushfires-killed-400-people.html		The bushfire season was one of the worst in Australian history, destroying an estimated 18.6 million hectares and almost 6,000 buildings including 2,779 homes. One billion animal perished
	19.06.20	1						https://www.begadistrictnews.com.au/story/6799687/coolagolite-loses-at- east-20-homes-in-summer-bushfires-as-well-as-one-life/	unk	Coolagolite loses at least 20 homes in summer bushfires
China	01.04.20	1		18				http://www.chinadaily.com.cn/a/202004/01/WS5e83da91a31012821728374f .html	fire related	most of the recent fires across the country were started by human activity
Equador	09.11.20	3	10					https://www.expreso.ec/actualidad/quito-registraron-26-conatos-incendio -forestal-48-horas-93236.html	burned	During the weekend, 67 emergencies were registered. An increase of 10 cases if compared to the previous weekend.
Guatemala	16.11.20	2						https://www.eluniverso.com/noticias/2020/11/16/nota/8050642/padre-e -hijo-murieron-calcinados-incendio-forestal-guaranda/	cardiorespiratory arrest	both left their home in the Carbón de Chinipamba community to the Las Mercedes compound in order to move the cattle and burn the clearing of the grass to prepare a new planting.
India	17.02.20	3	2					https://www.hindustantimes.com/india-news/two-killed-in-forest-fire-in- kerala/story-OHBMY32ksCZSc5Y9iz1E1L.html	burned	the sudden hike in temperature might have triggered the massive fire. For the last few days, mercury rose steadily in the state with temperature going up from 2 degree Celsius to four degree Celsius.
	06.04.20	2						https://www.siasat.com/two-women-charred-death-forest-fire-ukhand- 1870306/	burned	Two women were charred to death and another was injured in a forest fire at a village in Uttarakhand's Bageshwar district, By the time forest officials reached the spot, both the women were dead

	10.10.20						https://www.tribuneindia.com/news/himachal/forest-fire-in-kullu-village- kills-two-153597	burned	A woman died after suffering burn injuries due to a forest fire at Sachani village in Bhuntar subdivision of the district yesterday. A man was also killed in an accident triggered by the forest fire.
	02.11.20	1					https://www.tribuneindia.com/news/himachal/youth-burnt-alive-in-forest -fire-in-shimla-164607	burned	The police said a devastating fire broke out in the adjoining forest which could not be controlled and spread fast towards the Kilra village, endangering residents too.
Iran	22.06.20	1					https://www.tehrantimes.com/news/449066/iranian-hero-dies-fighting- Zagros-forest-wildfire	burn wound infection	Some 300 hectares of forests and rangelands in Gachsaran county turned into ashes, as well as 200 hectares of forests in Kohgilouyeh
Mexico	15.04.20	9					https://www.eluniversal.com.mx/estados/suben-9-las-victimas-de-incendio -forestal-en-oaxaca	fire related	Five days after the start of the forest fire that devastates the forests of four municipalities in the Mixteca region of Oaxaca, the number of fatalities rose to nine
	11.06.20	2					https://mexiconewsdaily.com/news/tijuana-wildfires-leave-2-dead/	unk	Fire department officials say the main problem they are facing in fighting the fires is a lack of water and scarcity of fire hydrants.
Peru	02.11.20				4		https://peru21.pe/peru/ayacucho-cuatro-bomberos-acaban-heridos-pero- logran-controlar-incendio-forestal-que-duro-siete-dias-nnpp-noticia/	unk	However, two of them have already been discharged and the rest are hospitalized in the Vilcashuamán Micro Network.
Portugal	14.07.20		3	1			https://www.reuters.com/article/uk-portugal-fires/firefighter-dies-in-forest- blaze-in-central-portugal-idUKKCN24C0UY?edition-redirect=uk	unk	Portugal is still reeling from fires in June and October 2017 that killed 114 people.
	27.07.20			1	4		https://www.dw.com/en/portugal-wildfires-state-of-alert/a-54329910	a road accident (a crash)	Two other firefighters have already been killed this summer in the course of their work.
Portugal/ Spain	09.08.20				1	1	https://www.portugalresident.com/tragedy-as-portuguese-firefighting- canadair-crashes-near-spanish-border/	firefighing plane crash	By the time rescue workers got to the wreckage, both victims were in cardio-respiratory arrest.
South Africa	26.07.20	1					https://northernnatalnews.co.za/197632/acting-mayor-speaks-out-after -49-year-old-is-killed-in-veld-fire	fire related	the damage caused by the fires could take decades to restore
Syria/ Lebanon /Israel	11.10.20	3	70				https://www.aljazeera.com/news/2020/10/10/at-least-two-killed-as -forest-fires-burn-in-syria-lebanon	fire related	70 people in the area were taken to hospital suffering from breathing difficulties. https://www.gulftoday.ae/news/2020/10/11/three-dead-as- forest-fires-burn-in-syria-and-lebanon (updated source)
Thailand	08.04.20	3					https://ca.news.yahoo.com/three-dead-forest-fires-rage-080000251.html	burned	prohibiting the forest activities could be helpful to stop the fire
Turkey	27.07.20			3			https://www.hurriyetdailynews.com/nearly-140-forest-fires-extinguished- over-past-week-in-turkey-156919	unk	Ninety percent of fires are ignited by human error
	12.10.20		10				https://www.aa.com.tr/en/turkey/ypg-pkk-spreads-propaganda-over-turkey- forest-fires/2002950	unk	Earlier, Agriculture and Forest Minister Bekir Pakdemirli told reporters following his inspections on the ground that it is suspected that the forest fire could be an arson attack.
USA	21.02.20				1		https://patch.com/connecticut/fairfield/firefighters-battle-blazes-along-i-95 -fairfield-westport	fire related	A Fairfield firefighter was taken to a nearby hospital after suffering minor injuries during the response
	12.03.20				1		https://www.myleaderpaper.com/news/police_fire/de-soto-rural-firefighter- hurt-while-battling-brush-fire/article_d1e9b19e-6322-11ea-b1e1-9f5c23be2a	a tree limb struck him in the head	A De Soto Rural firefighter was injured Sunday afternoon (March 8), when a tree limb struck him in the head while he was battling a brush fire northeast of De Soto, Chief Tom Fitzgerald reported.
					1		https://www.firehouse.com/operations-training/news/21129351/mo-firefigh -seriously-burned-battling-grass-fire	ter burned	in critical condition
	19.03.20		1				https://wgme.com/news/local/maine-girl-suffers-serious-burns-in-brush-fire	burned	The girl suffered burns to her face, neck and chest
	20.03.20		1				https://www.wpri.com/video/woman-injured-in-brush-fire-in-pawtucket/438	8059/ burned	a woman got burned on her leg and being treated at the hospital
	30.03.20				2		https://www.postguam.com/news/local/two-firefighters-injured-in-grass-fire transported-to-hospital/article_5a67e73c-71b2-11ea-b441-df5bec6474f2.htm		both of them in stable conditions
	18.04.20	1					https://www.tchdailynews.com/2020/04/17/brush-fire-becomes-fatal/	burned	No buildings were in danger from the blaze
	04.05.20	1					https://www.wbtv.com/2020/05/03/one-person-displaced-after-brush-fire- spreads-mobile-home/	smoke inhalation	One person was treated at the scene for inhaling smoke.

08.05.20				2		https://www.lcsun-news.com/story/news/2020/05/07/firefighters-injured -extinguishing-chaparral-blaze/3089287001/	fire related	The fire, caused by an electrical short
04.06.20		1		3		https://patch.com/california/palmdesert/3-injured-140-acre-palm-springs-brush- fire-20-contained	heat exhaustion	file not found
09.06.20	1	1				https://www.abc4.com/news/southern-utah/man-found-dead-inside-home-damaged- by-apple-valley-wildfire/	cardiac arrest	A man died after he attempted to stop further damage to his home by a wildfire burning south of state Route 59 about two miles west of Apple Valle
12.06.20				1		https://www.wsls.com/news/local/2020/06/11/no-one-hurt-in-forest-house-fire/	heat exhaustion	One firefighter was taken to the hospital to be treated for heat exhaustion.
30.06.20				1		https://www.mercurynews.com/2020/06/29/san-jose-firefighter-injured-battling-two- alarm-brush-fire/	unk	firefighter was treated for minor injuries at a hospital.
	1					https://www.foxnews.com/us/california-wildfire-nilan-brush-fire-desert-weather -evacuation-shelter	unk	40 homes were estimated to have been lost, but the fire has since been contained.
05.07.20		4				https://www.idahostatejournal.com/news/local/several-houses-evacuated-because-of- wildfire-near-pocatello/article_f113e19c-67c1-5e12-93a5-42a14720e363.html	fire related	1 dog died
08.07.20					1	https://www.abc15.com/news/region-northern-az/payson/helicopter-down-near- polles-fire-in-payson-area	firefighing plane crash	37-year-old Bryan Boatman, was the only person inside the helicopter at the time of the crash.
13.07.20				6		https://abc30.com/fire-veg-madera-county-vegetation/6313356/	fire related	It has since charred more than 108 acres and destroyed one home and one outbuilding
21.07.20				1		https://www.pasadenastarnews.com/2020/07/20/brush-fire-chars-5-acres-in -angeles-national-forest/	hit by a falling rock	He was taken to a hospital.
22.07.20						https://krcrtv.com/news/local/gold-fire-grows-by-2000-acres-red-flag-warning- issued-for-tuesday	unk	The fire has burned 4,500 acres, an increase of 2,000 acres from Monday night to Tuesday morning.
				5		https://www.kiitv.com/article/news/local/evacuations-in-aransas-pass-due-to-a-large- brush-fire/503-f1eca03f-466d-4bfe-b66d-60ba8bdaf5a0	unk	Five firefighters were injured. Two homes and a brush truck were lost in the fire.
26.07.20				1		https://kesq.com/news/2020/07/25/one-firefighter-injured-while-battling-brush-fire -in-palm-springs/	unk	It ignited near Highway 111 Saturday morning causing it to closed coming off I-10 freeway in Palm Springs. Then, the fire spread south toward Tramway Road.
27.07.20				1		https://www.firehouse.com/operations-training/wildland/video/21147651/ca- firefighter-injures-leg-battling-difficult-brush-fire	unk	The wildfire was 50 percent contained by early Sunday, and the flames were under control by late Sunday.
31.07.20					2	https://www.rgi.com/story/news/2020/07/30/airplane-crash-today-bishop-fire- nevada-air-tanker-crash/5551348002/	collision	Two airplanes have collided while battling a 500-acre wildfire in southeastern Nevada, according to authorities.
06.08.20				1		https://mynewsla.com/life/2020/08/05/firefighter-falls-ill-while-battling-two-acre- brush-fire-in-hollywood-hills/	unk	One LAFD member became ill at the peak of the firefight, and has been taken to an area hospital in fair condition for further evaluation
09.08.20				1		https://www.fox7austin.com/news/76-homes-evacuated-due-to-200-acre-grass-fire-in- florence	heat related	Seventy-six homes have been evacuated due to a grass fire in Florence
12.08.20			1			https://www.turnto23.com/news/local-news/firefighter-who-died-battling-stagecoach- fire-identified-as-engineer-pete-hein	complications while assigned to the Stagecoach Fire	the U.S. Forest Service reported that a firefighter suffered "an acute medical emergency and passed away due to complications while assigned the Stagecoach Fire."
13.08.20			1	3		https://www.firehouse.com/operations-training/wildland/news/21150033/co-grass- fire-injures-three-firefighters-damages-apparatus	heat and smoke	Members of the multi-agency Fire Investigation Team investigated the fire suspect malfunctioning equipment that staff was using for land management activities on the property was the cause
18.08.20						https://www.thecalifornian.com/story/news/2020/08/16/evacuation-advisory-issued- river-fire-south-salinas/5597381002/	unk	Cal Fire reported that the fire was only 10% contained. Four injuries were reported and In less than 24 hours, the River Fire destroyed more than 2,0 acres and damaged at least five structures, according to Cal Fire.

19.08.20		4				https://sanfrancisco.cbslocal.com/2020/08/19/Inu-lightning-complex-firewildfire- blazing-toward-vacaville/	unk	At least 124,100 acres – nearly 200 square miles – have burned since the fires began early Monday morning. Close to 200 different structures have been destroyed or damaged, and at least four people have been injured.
20.08.20				1		https://www.cbc.ca/news/world/california-wildfires-evacuation-orders-1.5691757	firefighing plane crash	Thousands of people were under orders to evacuate their homes in regions surrounding the San Francisco Bay Area Wednesday as nearly 40 wildfires blazed across California, killing a helicopter pilot on a firefighting mission amid a blistering heat wave now in its second week
				1		https://abc30.com/coalinga-helicopter-crash-firefighter-fresno-county-fire-cal/6378368/	firefighing plane crash	The helicopter pilot, Fournier was killed while making water drops over the wildfire on Wednesday. He was the only person on board.
25.08.20				1		https://ktvz.com/news/2020/08/25/firefighting-pilot-killed-in-helicopter-crash-on-mt- hood-national-forest/	firefighing plane crash	The National Transportation Safety Board and the Federal Aviation Administration are investigating the crash.
28.08.20			2			https://sanfrancisco.cbslocal.com/2020/08/27/woodward-fire-in-marin-county-at-8- containment-structures-still-threatened/	from falling debris	he firefighters were transported to a local hospital for treatment and evaluation after receiving non-life-threatening injuries
02.09.20	1					https://mynorthwest.com/2130981/homeless-encampment-brush-fire-one-dead-i-S- seattle/	fire related	the incident has been ruled "accidental," caused by a warming fire that ignited nearby combustibles and spread through the camp
06.09.20	1	10				https://www.latimes.com/california/story/2020-09-05/creek-fire-in-sierra-national- forest-prompts-evacuations	fire related	A brush fire in the Sierra National Forest exploded Saturday, consuming more than 36,000 acres, threatening local communities and trapping 150 near a popular reservoir.All of the people were reported safe but 10 of them suffered some type of injury, the sheriff's office said.
			4			https://nbcmontana.com/news/local/authorities-evacuating-bridger-canyon-due-to- wildfire-firefighters-injured-on-fire	unk	
08.09.20		1	2			https://abc7.com/sepulveda-fire-basin-los-angeles-county-department-lacofd/6413304/	fire related	The body was found in the Sepulveda Basin within the perimeter of the burn footprint, after the fire was put out, said Nicholas Prange of the Los Angeles Fire Department.
09.09.20			3			https://www.npr.org/2020/09/08/910883737/3-firefighters-hospitalized-with-injuries- from-battling-wildfire-in-california	burned and smoke inhalation	one remains in critical condition
		unk				https://abcnews.go.com/US/oregon-governor-issues-emergency-declaration- wildfires/story?id=72895505	burned	In Okanogan County, Washington, a child died and his parents suffered third-degree burns when the family attempted to outrun the Cold Springs wildfire, authorities said.
13.09.20	7				50	https://au.news.yahoo.com/boy-13-died-trying-to-save-grandmother-and-dog-from- bushfire-060851261.html	burned	50 people are unaccounted for and hundreds are reeling from lost homes https://www.oregonlive.com/pacific-northwest-news/2020/09/oregon- wildfires-monday-firefighting-conditions-improve-in-clackamas-county-air- quality-remains-poor-live-updates.html (updated source)
14.09.20	1	2				https://www.seattletimes.com/seattle-news/washington-state-fires-at-a-glance/	burned	The fires have destroyed homes, forced evacuations and taken a toll on human life.
17.09.20	1					https://www.oregonlive.com/news/2020/09/oregon-wildfire-near-eugene-destroysat- least-500-homes-structures-8-contained.html		
29.09.20					1	https://losangeles.cbslocal.com/2020/09/28/hotshot-firefighter-who-disappeared-after- batting-el-dorado-fire-still-missing-monday/		A Hotshot firefighter who disappeared over a week ago, after having battled the El Dorado Fire, may have been picked up by someone driving a Subaru.
26.10.20	2					https://www.reuters.com/article/usa-wildfire-colorado/fingers-crossed-and-prayers- colorado-wildfire-kills-couple-forces-more-evacuations-idUSKBN27A02A?edition- redirect=uk	burned	Near the town of Grand Lake, some 17 miles (30 km) southwest of Estes Park, the fire killed Lyle and Marilyn Hileman, who were 86- and 84-years-old. The couple, who were married for almost 70 years, chose not to leave their home
27.10.20	_		2			https://www.nbclosangeles.com/news/california-wildfires/brush-fire-orange-county- wildfire-santiago-canyon/2449550/	fire related	Two firefighters were critically injured as they battled the fire, which started at about 7 a.m. Fanned by extremely strong winds, the Silverado Fire expanded to more than 500 acres about three hours later near Santiago Canyon and Silverado Canyon roads.
07.11.20			3			https://losangeles.cbslocal.com/2020/11/06/san-dimas-brush-fire/	fire related	A brush fire erupted in the San Gabriel foothills of San Dimas early Friday morning and quickly spread, but burned away from home and did not force any evacuations.

	10.11.20	1				https://www.wsaz.com/2020/11/10/elderly-mans-death-connected-to-brush-fire/	fire related	According to the Hurricane fire chief, Hurricane fire and rescue responded to a brush fire in the 7900 block of U.S. 60. The incident was reported just before 4 p.m.
	19.11.20			1		https://fireaviation.com/2020/11/19/smokejumper-hangs-up-in-tree-falls-during-let- down-procedure/	hangs up in tree, falls during let down procedure	The patient was treated on scene by U.S. Forest Service EMTs then transported to a hospital via air ambulance. Surgery three days later was successful and a full recovery is expected after rehabilitation.
	20.11.20	1				https://www.nydailynews.com/news/national/ny-mountain-view-fire-california-nevada- border-one-killed-20201119-rayamuuzyrg27nrzzihc5x7aeu-story.html	fire related	More than 100 families had been displaced, and as of late Wednesday it had been just 20% contained, the Mono County Sheriff's Office said.
				2		https://www.startribune.com/wildfire-destroys-multiple-reno-homes-hundreds- threatened/573114281/	fire related	One suffered an allergic reaction, and the other injured a leg while helping evacuate 1,300 residents.
	26.11.20	1				https://mendovoice.com/2020/11/fort-bragg-senior-dies-of-burns-despite-heroic- efforts-of-neighbors-out-of-control-burn-spreads-to-9-acres/	unk	Two fires burn in Fort Bragg — senior dies of burns despite heroic efforts of neighbors — out of control burn spreads to 9 acres
	29.11.20			1		https://www.cbs8.com/article/news/local/fire-near-japatul-valley-road/509-c66462f6- 7fc2-407b-a1e9-8fb982f70a41	struck by falling debris	He was taken by ambulance for treatment at Sharp Memorial Hospital.
	29.11.20	2		1		https://foxbaltimore.com/news/local/fire-rips-through-catonsville-home-killing-elderly- mother-and-son-injures-firefighter	burned	
	04.12.20			2		https://www.firehouse.com/operations-training/wildland/news/21165191/two-ca- firefighters-injured-battling-bond-fire	fire related	A wind-driven wildfire in Silverado Canyon that destroyed homes and forced at least 25,000 residents to evacuate exploded to more than 6,400 acres on Thursday and injured two firefighters.
	11.12.20	2				https://kobi5.com/news/slater-and-devil-fires-officially-declared-100-contained-nearly- 100-days-after-starting-142006/	fire related	93 days after the fatal Slater and Devil fires started, the U.S. Forest Service says they are considered 100% contained.
	23.12.20	9				https://www.theguardian.com/world/2020/dec/22/oregon-2020-fire-season-smoke- coronaviruus	fire related	The state's fire year made history, testing resources to unprecedented extremes as nine people died and 1m acres burned
	25.12.20	33				https://kfgo.com/2020/12/24/california-brush-fire-at-u-s-marine-base-forces- evacuation-of-7000-plus-residents/	fire related	The incident capped the heaviest wildfire season on record in California in terms of total acreage burned, with more than 4 million acres and over 10,000 homes and other structures up in flames. Thirty-three lives were lost.
	29.12.20	1	2			https://www.cbs46.com/news/several-injured-during.grass-fire-in-dekalb- county/article_c9572e40-48d6-11eb-8563-679e7d7628ea.html	fire related	the fire happened as a result of homeless people trying to keep warm during the droppnig temperatures.
	31.12.20	47				https://www.theguardian.com/us-news/2020/dec/30/california-wildfires-north- complex-record	fire related	the flames had killed 31 people, destroyed or damaged more than 10,000 buildings and burned a staggering 4.1m acres. The North Complex fire was responsible for more than 300,000 acres of scorched land, killing 16 people in its wake.
Ukraine	08.07.20	5				https://www.bbc.com/news/world-europe-53332821	unk	Towns including Vovche and Smolianynove were evacuated and more than 300 members of the state emergency services arrived to battle back the fires.
	05.09.20	2				https://112.international/ukraine-top-news/rescuers-extinguish-one-of-forest-fires-in- kharkiv-region-54446.html	unk	22 houses were destroyed in Kharkiv region and 13 in Luhansk region. Besides, 33 people were settled out
	01.10.20	9	14			https://www.euronews.com/2020/10/01/at-least-nine-killed-as-forest-fires-rage-in- eastern-ukraine	unk	At least nine people have died and fourteen more hospitalised after a number of forest fires swept through Ukraine's eastern region of Luhansk, according to authorities. As many as 120 people have also been evacuated from villages in the area, the emergency services said in a statement on Thursday.
	20.10.20		3			https://forest.gov.ua/news/na-luganshchini-pidirvavsya-avtomobil-postrazhdali-u- vazhkomu-stani	a car explosion	The victims were taken to the Stanychno-Luhansk district hospital in critical condition. The fire truck cannot be repaired.
Zimbabwe	04.02.20	2				https://allafrica.com/stories/202002030195.html	fire related	Two people were killed while close to one million hectares of land were destroyed by veld fires across the country in 2019, an official has said.
	10.11.20	3				https://allafrica.com/stories/202011090302.html	fire related	Three people were killed, while over 800 000 hectares were destroyed by fire between July 31 and October 31, 2020 making it the first fire season in a decade that has seen less than one million hectares being lost to veld fires.

Annex II: Previous Years' Reports

12th Global Wildland Fire Fatalities Report – 2019

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 25 (# 1 / 2020 – 15 September 2020) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2020.pdf

11th Global Wildland Fire Fatalities Report – 2018

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 24 (# 1 / 2019 – 15 September 2019) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2019-1.pdf

10th Global Wildland Fire Fatalities Report – 2017

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 23 (# 1 / 2018 – 31 December 2018) http://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2018.pdf

9th Global Wildland Fire Fatalities Report – 2016

GFMC / IWPM / UNISDR Global Wildland Fire Network Bulletin No. 22 (# 1 / 2017 – 18 December 2017) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2017.pdf

8th Global Wildland Fire Fatalities Report – 2015

GFMC / IWPM / UNISDR Global Wildland Fire Network Bulletin No. 21 (# 1 / 2016 – 12 September 2016) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2016.pdf

7th Global Wildland Fire Fatalities Report – 2014

GFMC / IWPM / UNISDR Global Wildland Fire Network Bulletin No. 20 (# 1 / 2015 – 20 April 2015) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2015.pdf

6th Global Wildland Fire Fatalities Report – 2013

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 19 (# 1 / 2014 – 30 December 2014) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2014.pdf

5th Global Wildland Fire Fatalities Report – 2012

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 18 (# 1 / 2013 – 20 September 2013) <u>https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2013.pdf</u>

4th Global Wildland Fire Fatalities Report – 2011

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 17 (# 1 / 2012 – 29 July 2012) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2012.pdf

3rd Global Wildland Fire Fatalities Report – 2010

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 15 (# 1 / 2011 – 31 July 2011) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2011-1.pdf

2nd Global Wildland Fire Fatalities Report – 2009

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 14 (# 1 / 2010 – 19 July 2010) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-01-2010.pdf

1st Global Wildland Fire Fatalities Report – 2008

IFFN-GFMC UNISDR Global Wildland Fire Network Bulletin No. 13 (# 2 / 2009 – 27 July 2009) https://gfmc.online/wp-content/uploads/GFMC-Bulletin-02-2009.pdf

© and Contact Addresses



The Global Fire Monitoring Center (GFMC) Georges-Koehler-Allee 75 79110 Freiburg Germany

and

The Global Fire Monitoring Center (GFMC)

c/o Regional Central Asia Fire Management Resource Center (RCAFMRC) National University of Mongolia, Room 136, University Building 3, University street-1, Sukhbaatar District, Ulaanbaatar Mongolia

E-Mail fire@fire.uni-freiburg.de

www.gfmc.online