

# Loss ratio poor against the national income

**A total direct fire loss figure of over R 2,3 billion is simply too much**

**T**HE STATISTICS that follow in the next few pages may not be a true reflection of the actual experience during 2008, but they nevertheless show that fires continue to plague the country, consuming more than a percentage point of the Gross National Income.

It should be an embarrassment to talk of increased losses today when the science of fire is better known and the technology available should improve our fire prevention capabilities. The fact that it does not, could well be a reflection on the attitude of a society that is shielded from the consequences. Our experience of fire is limited. Those who have been affected directly in their place of work or residence will rue the memory. The rest have become reactive to issues that are confronted daily. The threat of fire seems remote compared with security concerns, power-cuts and potholes.

Until the compilation of more accurate national figures become entrenched, we must publish what we have access to and acknowledge participating insurers and fire services who have assisted.

## **The loss leaders**

Fire losses are up on last year but much lower than the nearly R5 billion loss in 2003. Industry leads the losses and residential and transport losses continue to climb. Building replacement costs are increasing as formal housing developments expand and account for the majority of costly fires. Rail transport falls behind as road transport carries more valuable cargo loads efficiently, but with more exposure risk to accidents and fire.

## **Call-out activities of fire services**

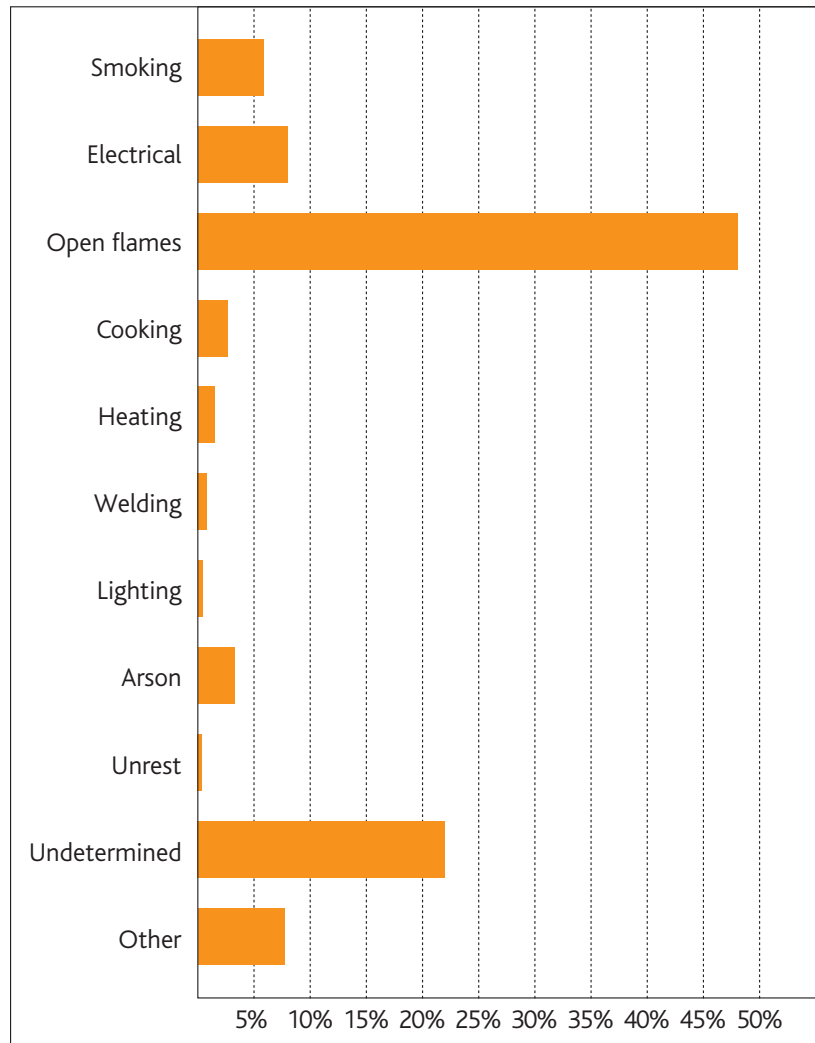
The responses of those fire brigades that reported call-out activities during 2008 are reflected on pages 32 and 33. Of the 35 432 fire calls attended, 67,36% were to deal with fires involving grass, bush and agriculture. This is a seemingly frivolous, time-consuming activity that must, however, be dealt with to protect structures under threat, crops, grazing and plantations that are crucial to the economy.





## FIRE CAUSES

Breakdown of number of fires as % of total number of fires (2002 - 2008)



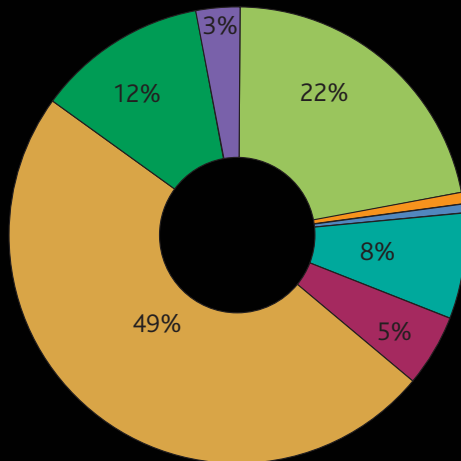
## Compared losses 2002-2008

Year	No. of Fires
2002	47699
2003	38631
2004	36591
2005	42863
2006	26475
2007	40582
2008	35432

## FIRE FATALITIES

Fire deaths were featured in the March issue of *Fire Protection* and are therefore not included in these pages

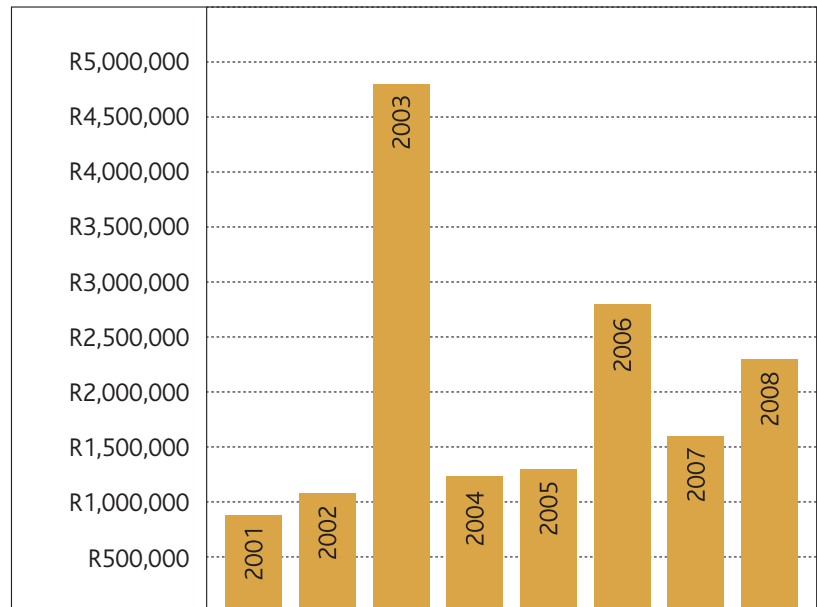
## Financial fire losses 2008



Description	R sum of damage
Residential	504,966,938
Institutional	23,610,050
Public Assembly	10,861,650
Commercial	182,168,301
Storage	112,471,075
Industry	1,128,862,550
Transport	277,063,888
Other	72,569,035
<b>Total</b>	<b>2,312,573,487</b>

## FIRE LOSSES: FINANCIAL

### Compared financial losses 2001-2008



Year	R Damage
2001	817,211,359
2002	1,181,641,778
2003	4,833,873,434
2004	1,211,926,334
2005	1,321,494,810
2006	2,732,970,948
2007	1,630,663,463
2008	2,312,573,487

### Compared fire losses 2001 - 2008

	2001	2002	2003	2004	2005	2006	2007	2008
Total loss in Rands	817,2	1181,6	4833,8	1211,9	1321,5	2732,9	1630,6	2312,5
GNI	942,4	1070,4	1184,0	1346,5	1492,2	1705,3	1935,5	2209,9
Fire loss as a % of GNI	0,09%	1%	4,08%	0,90%	0,89%	1,60%	0,84%	1,04%
No. of Fires	36,5	47,7	38,6	36,5	42,8	26,4	40,5	35,4
Population	44,5	45,5	46,4	46,9	46,9	47,8	48,6	49,3

**Notes to table:**

Total loss in millions  
 GNI Gross National Income - in thousand millions  
 Number of fires in thousands  
 Population in millions

## FIRE LOSSES: INDUSTRIAL

### Compared industrial fire losses 2007 - 2008

Description	Damage	
	2007	2008
Furniture	R 7,004,000	R 4,027,900
Plastics and rubber	R 61,183,475	R 135,764,300
Textile	R 33,909,750	R 12,580,500
Printing	R 85,000	R 5,740,000
Milling	R 947,050	R 152,621,100
Petroleum	R 103,404,500	R 152,193,000
Food and drink	R 3,118,950	R 167,005,500
Paper and packaging	R 11,837,550	R 1,941,500
Chemical	R 70,437,250	R 321,684,750
Metal	R 11,853,800	R 28,471,000
Electronics	R 16,683,170	R 4,343,500
Mines (surface)	R 413,000	R 500,000
Utilities	R 19,797,610	R 141,989,500
<b>TOTAL</b>	<b>R 340,675,105</b>	<b>R 1,128,862,550</b>

### Compared industrial fire calls 2002 - 2008

#### Number of incidents

Description	2002	2003	2004	2005	2006	2007	2008
Furniture	38	42	44	47	27	414	55
Plastics and rubber	124	58	65	63	33	94	73
Textile	85	45	65	61	45	67	34
Printing	10	5	12	9	6	18	8
Milling	36	19	16	33	10	21	21
Petroleum	19	9	9	22	13	21	16
Food and drink	54	53	47	46	43	50	35
Paper and packaging	34	28	35	37	25	226	27
Chemical	45	44	52	33	26	345	79
Metal	81	46	51	85	38	80	69
Electronics	159	152	132	116	129	135	191
Mines (surface)	16	11	10	11	2	54	10
Utilities	135	141	121	78	38	150	110
<b>TOTAL</b>	<b>836</b>	<b>653</b>	<b>659</b>	<b>641</b>	<b>435</b>	<b>1675</b>	<b>728</b>



## FIRE LOSSES

### Breakdown of occupancy

Description	Number of incidents
Formal dwellings	3471
Informal dwellings	3279
Flats	362
Hotels and boarding houses	95
Hospitals and nursing homes	33
Educational establishments	93
Churches and halls	38
Cinemas and theatres	2
Museums, libraries and art galleries	11
Night clubs and dance halls	16
Restaurants and cafes	143
Offices	209
Shops	314
Department stores	63
Garages and workshops	133
Warehouses	64
Outside storage	148
Furniture	55
Plastics and rubber	73
Textile	34
Printing	8
Milling	21
Petroleum	16
Food and drink	35
Paper and packaging	27
Chemical	79
Metal	69
Electronics	191
Mines (surface)	10
Utilities	110
Cars, motorcycles	1808
Buses	179
Heavy goods vehicles	356
Ships	7
Trains	38
Aircraft	14
Rubbish, grass and bush	22228
Plantations and forests	186
Agricultural	67
Miscellaneous fires	1347
<b>TOTAL</b>	<b>35432</b>

## FIRE CAUSES

### Breakdown of the causes of fire 2008

(Fire and emergency services in attendance)

Description	Smoking	Electrical	Open flames
Dwellings formal	69	608	759
Informal dwellings	67	301	1000
Flats	46	67	80
Hotels and boarding houses	3	20	41
Hospitals and nursing homes	1	3	4
Educational establishments	10	19	15
Churches and halls	1	11	7
Cinemas and theatres	0	0	0
Museums, libraries and art galleries		0	3
Night clubs and dance halls	1	1	1
Restaurants and cafes	6	42	20
Offices	6	80	28
Shops	8	100	54
Department stores	1	35	7
Garages and workshops	4	40	29
Warehouses	3	14	15
Outside storage	4	9	58
Furniture	2	24	3
Plastics and rubber	6	6	18
Textile	1	6	4
Printing	0	4	1
Milling	0	4	5
Petroleum	0	5	2
Food and drink	0	12	6
Paper and packaging	0	4	4
Chemical	0	9	7
Metal	1	12	18
Electronics	2	120	3
Mines (surface)	0	4	2
Utilities	1	57	24
Cars, motorcycles	94	579	234
Buses	33	36	20
Heavy good vehicles	3	63	44
Ships	0	2	2
Trains	0	11	4
Aircraft	0	0	5
Rubbish, grass and bush	1617	116	14014
Plantations and forests	47	12	81
Agricultural	6	0	32
Miscellaneous fires	46	429	313
<b>TOTAL</b>	<b>2089</b>	<b>2868</b>	<b>16965</b>
<b>TOTAL %</b>	<b>5,90%</b>	<b>8,09%</b>	<b>47,88%</b>

Cooking	Heating	Welding	Lightning	Arson	Unrest	Undetermined	Other	Total	Rand damage
261	127	13	24	201	6	924	478	3471	387,199,973
283	71	10	8	316	1	1081	148	3279	76,827,903
58	13	1	1	19	0	38	39	362	29,625,288
7	3	0	1	6	0	9	5	95	11,313,775
2	2	0	1	3	0	5	12	33	94,500
3	11	0	0	21	0	12	2	93	23,515,550
4	0	0	1	4	0	6	4	38	9,081,400
0	0	0	0	0	0	2	0	2	12,500
1	0	0	2	0	0	0	1	3	88,650
7	1	1	0	0	0	1	3	16	1,679,100
35	12	0	1	5	0	16	6	143	34,212,650
7	16	1	0	14	0	28	29	209	30,498,425
18	22	7	0	16	0	48	41	314	77,048,151
2	2	1	0	1	0	3	14	63	4,138,850
2	8	16	0	6	0	18	10	133	36,270,225
0	0	3	0	6	0	20	3	64	102,865,500
0	1	5	1	17	0	40	13	148	9,605,575
0	0	2	1	1	0	10	12	55	4,027,900
0	6	2	0	2	0	29	4	73	135,764,300
0	5	0	0	0	0	8	10	34	12,580,500
0	0	2	0	0	0	1	0	8	5,740,000
0	4	1	0	0	0	6	1	21	152,621,100
0	1	0	0	0	0	5	4	16	152,193,000
5	4	2	0	0	0	4	2	35	167,005,500
1	6	0	0	0	0	8	4	27	1,941,500
0	14	1	1	2	0	34	11	79	321,684,750
0	6	8	0	1	0	8	15	69	28,471,000
2	9	1	0	1	0	28	25	191	4,343,500
0	0	1	0	0	0	2	1	10	500,000
0	2	1	2	0	0	19	4	110	141,989,500
0	83	36	1	114	0	457	212	1808	88,301,375
0	38	9	0	20	0	11	12	179	48,226,700
7	41	18	0	18	0	94	68	356	103,724,013
0	0	0	0	0	0	1	2	7	1,123,000
0	1	0	0	18	0	4	0	38	30,438,800
0	1	0	0	0	0	8	0	14	5,250,000
258	106	82	48	284	2	4451	1282	22228	51,384,880
2	1	0	4	1	0	29	9	186	3,986,830
0	0	1	0	0	0	7	20	67	2,064,000
14	12	6	13	50	1	246	189	1347	15,133,325
<b>978</b>	<b>629</b>	<b>233</b>	<b>108</b>	<b>1147</b>	<b>10</b>	<b>7722</b>	<b>2697</b>	<b>35432</b>	<b>2,312,573,487</b>
<b>2,76%</b>	<b>1,78%</b>	<b>0,66%</b>	<b>0,30%</b>	<b>3,24%</b>	<b>0,03%</b>	<b>21,79%</b>	<b>7,61%</b>		

## Brigade calls 2008

	RESIDENTIAL		INSTITUTIONAL			PUBLIC ASSEMBLY				COMMERCIAL			STORAGE							
	Dwelling	Informal dwellings	Flats	Hotels/Boarding houses	Hospitals/nursing	Educational estabts.	Churches/halls	Cinemas/theatres	Museums Etc.	Night Clubs/dance	Restaurants/cafes	Offices	Shops	Dept. Stores	Garages/workshops	Warehouses	Outside storage	Furniture	Plastics/rubber	Textile
Albert Luthuli Municipality	1	3	-	1	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	
Baviaans Municipality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Beaufort West	9	5	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Breedevallei Municipality	83	89	-	-	-	-	-	-	-	-	-	4	1	1	-	3	-	-	-	
Camdeboo Local Municipality	9	16	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
Cape Town Metro Council	554	615	54	12	14	18	5	-	4	4	26	26	64	16	26	7	38	9	5	11
Dr Ruth S Mompoti District Municipality	58	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
East London	92	100	15	-	2	4	-	-	1	-	1	14	15	1	3	1	6	-	2	2
Eden District	29	11	-	-	-	-	-	-	-	-	2	1	-	1	-	-	-	-	-	-
Ekurhuleni Metropolitan Municipality	367	417	22	5	1	8	2	1	-	2	10	10	48	-	9	13	8	5	27	2
Emalaheni Fire Dept	14	23	-	-	-	-	3	-	-	-	1	1	-	-	-	-	-	-	-	-
Emfuleni Municipality Fire & EMS	94	96	1	1	-	-	-	-	-	-	9	-	7	1	5	-	2	-	1	-
Emnambithi Protection Services	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethekwini Unicity Municipality	525	542	91	20	8	24	17	-	1	6	36	72	69	7	46	23	52	11	13	12
Greater Kokstad Municipality	36	32	37	31	-	6	-	-	-	-	11	-	13	14	-	-	18	-	-	-
Hassequa Local Municipality	2	6	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Hibiscus Coast Municipality	121	108	13	2	-	6	2	-	-	-	4	3	1	-	2	-	-	-	-	-
Johannesburg EMS	426	284	21	6	-	2	2	-	1	-	4	12	23	3	13	3	5	2	2	1
Lesedi Municipality EMS	48	29	-	-	-	-	-	-	1	-	2	1	2	-	-	-	2	-	-	2
Lukhanje Fire & EMS	21	36	-	1	1	-	-	-	-	-	-	2	1	-	1	2	4	-	-	-
Makana Local Municipality	18	27	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
Mangaung Local Municipality	120	115	11	3	1	8	-	-	1	-	2	12	5	3	2	6	1	1	-	-
Matzikama Municipality	5	10	1	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-
Metsimaholo Municipality	29	45	10	1	-	-	-	-	-	-	-	1	2	1	-	-	1	1	-	-
Mogalakwena Municipality	-	36	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	-	-
Mossel Bay Fire & Rescue	44	100	-	-	-	3	-	-	-	1	1	2	-	-	2	-	5	2	-	-
Nelson Mandela Metro	5	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okhahlamba Municipality Fire Department	-	-	-	2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Rustenburg	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sol Plaatje EMS	47	75	9	-	3	-	2	-	-	1	2	2	4	1	3	-	3	-	-	-
Steve Tshwete Fire Department	33	39	2	-	-	1	-	-	-	-	-	1	1	-	1	-	3	-	4	-
Tshwane Metro Municipality	571	327	69	6	3	10	4	1	1	2	31	43	42	14	15	8	10	5	4	4
Umdoni Municipality Fire Department	11	5	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	15	-
Umhlatuze Municipality	91	-	4	2	-	3	-	-	-	-	1	5	5	-	2	1	-	-	-	-
Umvoti Municipality	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**TOTAL** 3471 3279 362 95 33 93 38 2 11 16 143 209 314 63 133 64 148 55 73 34

Printing	Milling	INDUSTRY										TRANSPORT					OTHER				TOTAL	
		Petroleum	Food/Drink	Paper/ Packaging	Chemical	Metal	Electronics	Mines (surface)	Utilities	Cars/ motorcycles	Buses	Heavy goods vehicles	Ships	Trains	Aircraft	Rubber/bush/ grass/	Plantations/ forests	Agricultural	Miscellaneous			
-	-	-	-	-	-	-	1	-	-	8	-	1	-	-	-	30	4	-	-	51	Albert Luthuli Municipality	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	Baviaans Municipality	
-	-	-	-	-	-	-	-	-	-	1	-	5	-	3	-	19	-	-	-	43	Beaufort West	
-	-	-	-	-	-	-	6	-	2	154	-	42	-	-	-	315	6	-	-	706	Breedevallei Municipality	
-	-	-	-	-	1	1	-	-	-	2	1	1	-	-	-	16	-	1	-	50	Camdeboo Local Municipality	
2	1	2	4	4	8	4	8	-	7	266	7	23	-	4	-	3480	17	24	284	5653	Cape Town Metro Council	
-	-	-	-	-	-	-	-	-	-	56	5	5	-	-	-	20	12	8	-	246	Dr Ruth S Mompoti District Municipality	
1	-	0	1	1	2	0	1	-	2	47	1	5	-	-	-	1201	6	2	61	1590	East London	
-	-	-	-	-	-	-	-	-	1	4	1	-	-	-	-	104	-	-	3	157	Eden District	
1	9	5	4	9	26	14	24	3	12	111	10	34	-	5	14	723	10	5	79	2055	Ekurhuleni Metropolitan Municipality	
-	-	-	-	-	-	-	-	4	-	23	-	11	-	-	-	50	-	-	10	140	Emalaheni Fire Dept	
-	-	-	1	-	-	2	10	-	-	17	1	7	-	-	-	176	1	-	11	443	Emfuleni Municipality Fire & EMS	
-	-	-	-	-	-	-	-	-	-	3	-	2	-	-	-	11	-	-	5	28	Emnambithi Protection Services	
3	8	3	15	7	27	20	4	1	11	381	44	87	4	8	-	8323	86	21	449	11077	Ethekwini Unicity Municipality	
-	-	-	-	-	-	-	-	-	-	96	64	-	-	-	-	279	-	-	-	637	Greater Kokstad Municipality	
-	-	-	-	-	1	-	-	-	-	3	1	-	-	-	-	32	-	-	-	46	Hassequa Local Municipality	
-	-	-	-	-	-	-	60	-	-	40	2	7	-	-	-	749	-	-	22	1142	Hibiscus Coast Municipality	
1	-	2	1	-	5	1	28	-	59	179	2	6	-	1	-	1450	12	-	93	2650	Johannesburg EMS	
-	-	-	-	-	-	-	-	-	-	23	-	14	-	-	-	225	-	-	8	357	Lesedi Municipality EMS	
-	-	-	-	-	-	-	1	-	1	7	2	1	-	-	-	124	-	-	4	209	Lukhanje Fire & EMS	
-	-	-	-	-	-	-	-	-	-	8	-	3	-	-	-	149	-	-	10	218	Makana Local Municipality	
-	-	-	1	-	1	3	12	1	-	47	8	12	-	-	-	322	3	2	-	703	Mangaung Local Municipality	
-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	7	-	2	30	Matzikama Municipality	
-	-	-	-	-	1	-	2	-	-	22	-	5	-	-	-	170	-	-	-	291	Metsimaholo Municipality	
-	-	-	-	-	-	-	6	-	-	14	-	2	-	1	-	192	-	-	-	256	Mogalakwena Municipality	
-	-	1	-	2	-	-	-	-	-	24	-	4	-	-	-	283	-	3	31	508	Mossel Bay Fire & Rescue	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	Nelson Mandela Metro	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	20	Okhahlamba Municipality Fire Department	
-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	3	-	-	5	14	Rustenburg	
-	-	-	2	-	-	1	2	-	-	20	-	4	-	-	-	261	-	-	56	498	Sol Plaatje EMS	
-	-	-	-	-	-	1	5	-	-	18	-	15	-	-	-	376	-	1	12	513	Steve Tshwete Fire Department	
-	2	3	5	3	-	18	4	-	11	197	28	54	-	16	-	2392	9	-	183	4095	Tshwane Metro Municipality	
-	-	-	1	-	2	-	-	-	-	6	-	-	-	-	-	24	-	-	5	72	Umdoni Municipality Fire Department	
-	1	-	-	1	5	4	17	1	4	29	2	6	1	-	-	707	13	-	15	920	Umhlatuze Municipality	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	1	6	Umvoti Municipality	
8	21	16	35	27	79	69	191	10	110	1808	179	356	5	38	14	22228	186	67	1347	35434	TOTAL	

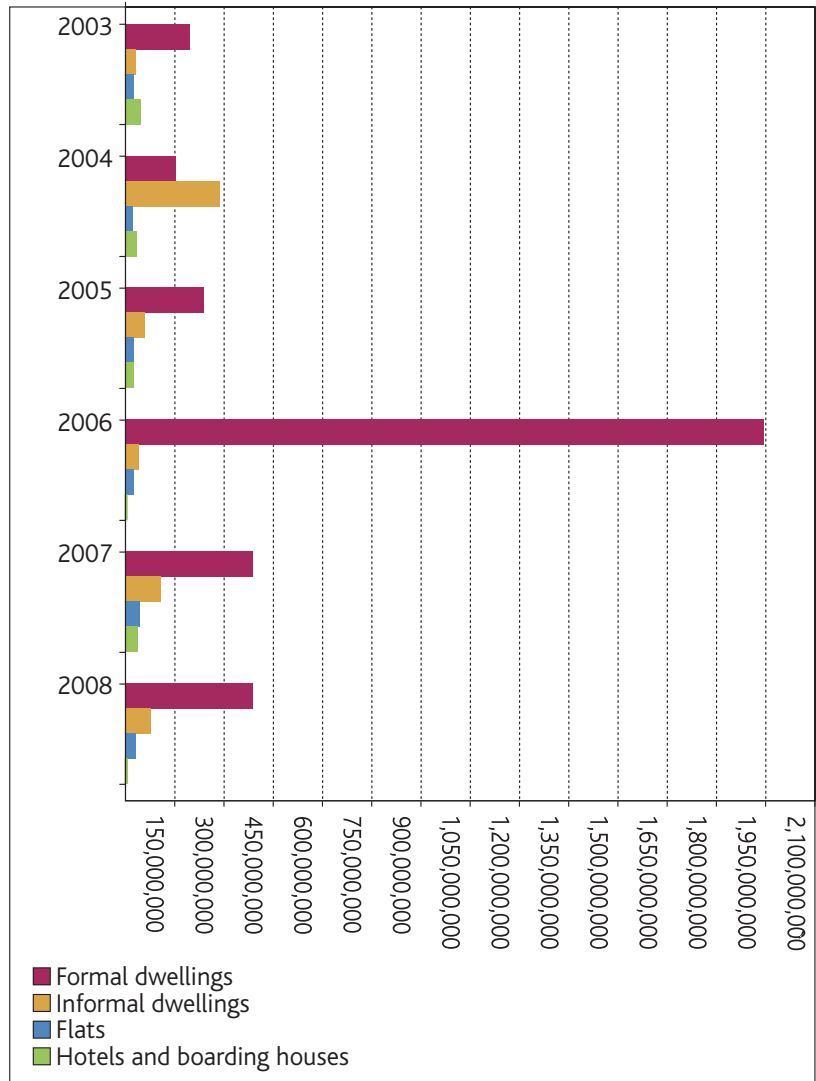


## FIRE LOSSES: RESIDENTIAL

Compared residential fire losses 2003 - 2008

### Estimated residential (informal) fire losses

Year	Damage
2002 (3709)	41,523,039
2003 (3562)	31,197,542
2004 (3566)	286,929,364
2005 (3342)	58,351,068
2006 (3105)	R 39,488,351
2007 (4273)	105,547,104
2008 (3279)	76,827,903



### Compared residential fire losses 2003 -2008

Description	2003	2004	2005	2006	2007	2008
Formal dwellings	195,350,180	151,123,213	240,213,106	1,953,447,609	387,890,154	387,199,973
Informal dwellings	31,197,542	286,929,364	58,351,068	39,488,351	105,547,104	76,827,903
Flats	22,656,051	18,316,483	25,951,470	24,699,595	42,713,920	29,625,288
Hotels and boarding houses	45,427,200	35,751,850	25,540,625	6,280,550	37,120,250	11,313,775
<b>R TOTAL</b>	<b>294,630,973</b>	<b>492,120,909</b>	<b>350,056,269</b>	<b>2,023,916,105</b>	<b>573,271,428</b>	<b>504,966,938</b>

PHOTOGRAPH: GRAEME WILLIAMS