



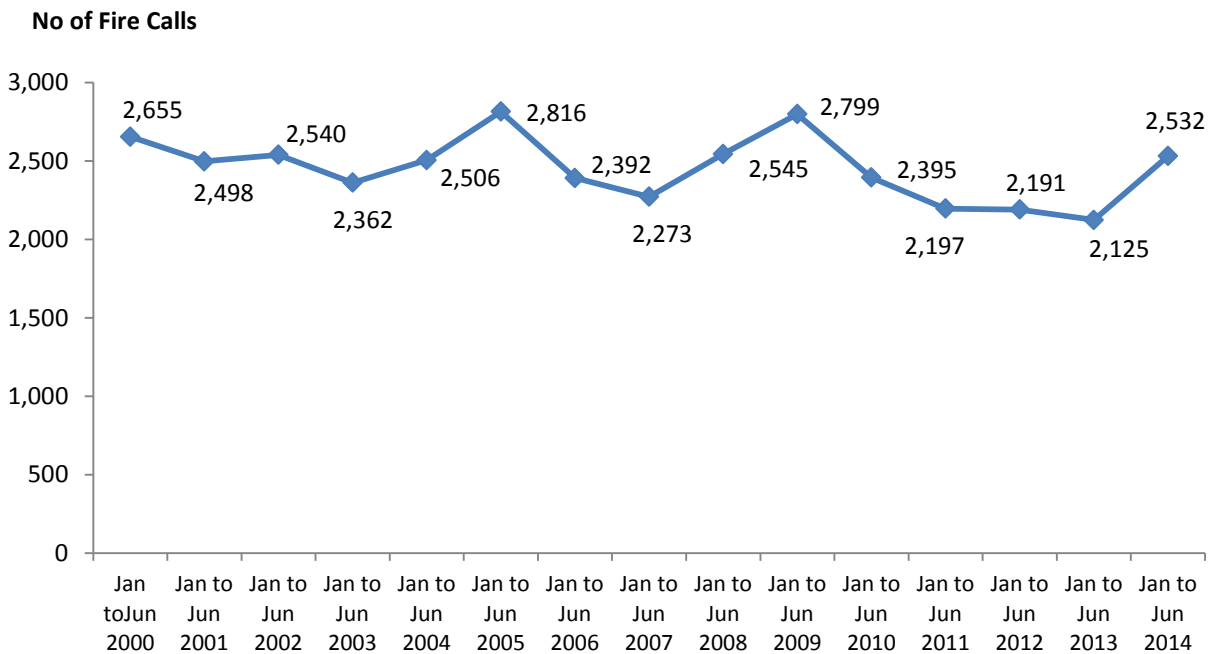
# SINGAPORE CIVIL DEFENCE FORCE FIRE, AMBULANCE AND ENFORCEMENT STATISTICS

## TOPIC A

### FIRE INCIDENT STATISTICS (JAN – JUN 2014)

#### INCREASE IN TOTAL FIRE CALLS BY 19.2% - LARGELY ATTRIBUTED TO INCREASE IN VEGETATION FIRES

SCDF responded to a total of 2,532 fires between Jan and Jun 2014, an increase of 407 cases (19.2%) from the 2,125 fires for the same period last year. The increase is largely attributed to a rise in vegetation fires as a result of dry season during Jan to Mar this year. The total number of fire calls for the first six months over the last 15 years is shown in the table below. (Refer to **Chart A1**).

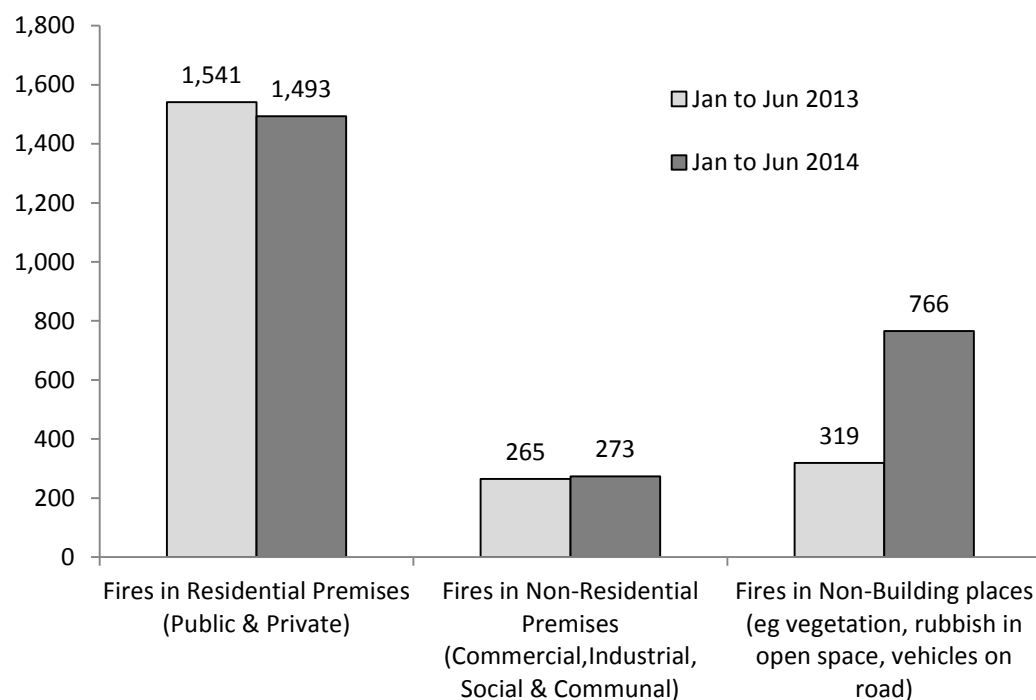


**Chart A1: Total Number of Fire Calls for first 6 months (2000 - 2014)**

## FIRES IN RESIDENTIAL PREMISES

### Fires in residential premises fell by 3% despite overall increase in fires

2. The breakdown of fire calls by types of premises is shown in **Chart A2** below. Of the 2,532 fires from Jan to Jun 2014, 1,493 (59.0%) involved residential premises, 273 cases (10.8 %) involved non-residential premises and 766 cases (30.3%) involved non-building places.

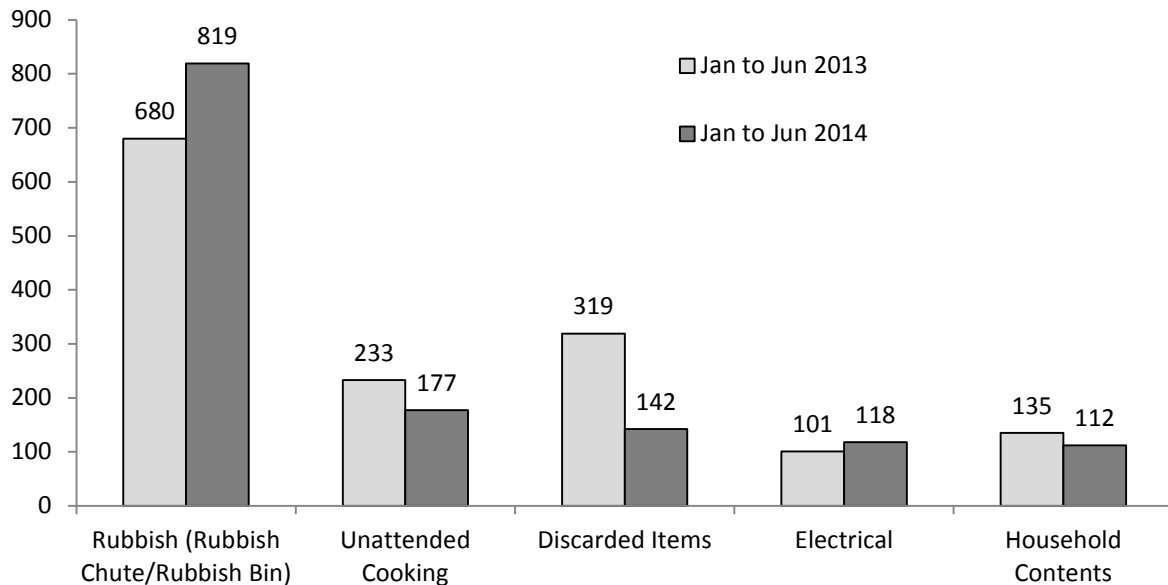


**Chart A2: Breakdown of fires by types of premises**

3. Despite the overall increase in the total number of fires, it is encouraging to note a 3.1% decline in the number of fires in residential premises, as shown in **Chart A2** above. Fires in non-residential premises (commercial industrial, social and communal premises) increased by 3.0% while the number of fires that involved non-building places increased by more than two-fold, from 319 cases to 766 cases. This increase is largely due to the increase in vegetation fires.

### Rubbish fires remains the largest component of residential fires at 54.9%

4. Of the 1,493 fires in residential premises from Jan to Jun 2014, rubbish fires form the bulk at 54.9% or 819 cases. Rubbish fires in residential premises include fires in rubbish chutes and rubbish bins. The top 5 types of fires in residential premises is shown in **Chart A3** below.



**Chart A3: Fires in residential premises (top 5 types)**

5. Rubbish fires saw an increase of 20.4% from 680 cases to 819 cases. Although such fires do not pose a serious threat to residents or cause significant damage to property, nonetheless, the resultant smoke emitted can be a source of irritation to residents. Attending to such fires also places unnecessary strain on the scarce emergency resources.

6. SCDF will continue to work closely with its community partners on its outreach efforts which include home fire safety visits for clusters of HDB blocks with high occurrences of rubbish chute fires, alongside the distribution of flyers and fridge magnets. Stickers with educational messages are also pasted above centralised rubbish chutes.

7. It has been observed that the number of rubbish fires tend to be higher during the festive season. For example, of the 819 rubbish fires between Jan to Jun this year, 389 cases (47.5%) occurred in Jan and Feb. This is due to the indiscriminate disposal of lighted materials, such as sparklers, charcoal and incense materials. To remind residents to be more fire safety-conscious during the festive season, SCDF produced a radio message on fire safety advisory to prevent rubbish chute fires and this message has been aired on selected MediaCorp's radio stations during this year's Chinese New Year and Hari Raya Puasa periods.

### **Significant drop of 55.5% in fires involving discarded items**

8. It is heartening to observe a decline in the number of fires involving discarded items, unattended cooking as well as household contents (e.g. furniture, clothings, mattresses, praying altars). Fires involving unattended cooking fires fell by 24.0%, and fires involving household contents fell by 17.0%. The biggest drop was seen in the number of discarded items fires, which plunged by a substantial 55.5%, from 319 cases to 142 cases.

9. The drop in discarded items fires can be attributed to greater public awareness and the concerted efforts by SCDF and its community partners, including the Town Councils, in stepping up efforts to educate the residents on the dangers of cluttered common areas. This includes the display of publicity posters on the fire safety guidelines on the safe and acceptable use of common corridors at Town Councils' and Residents' Committees' notice boards; setting up fire safety exhibitions at the void decks of the fire affected blocks, installation of lift door stickers with pictorial fire safety advisory; and the broadcast of radio message on fire safety tips.

### **Electrical fires increase by 16.8%**

10. The number of electrical fires for the first six months of 2014 increased by 16.8% as compared to the same period last year. Majority of the electrical fires were usually caused by the poor condition/maintenance of electrical wirings/cables, loose/improper connections or electrical appliances/machineries that short-circuited. Of the 118 electrical fires in residential premises from Jan to Jun 2014, 39 fires involved electrical wirings/cables, 37 fires involved electrical appliances/machineries and 28 fires involved electrical switchboards/distribution boxes.

### **Workshops on prevention of electrical fires by SCDF and NFEC**

11. In fact, electrical fires continue to be one of the top fire causes in Singapore in both residential and commercial premises. SCDF has worked closely with the NFEC to conduct two workshops this year on the prevention of electrical fires to prepare and equip participants with the knowledge and skills to handle emergencies on electrical fires.

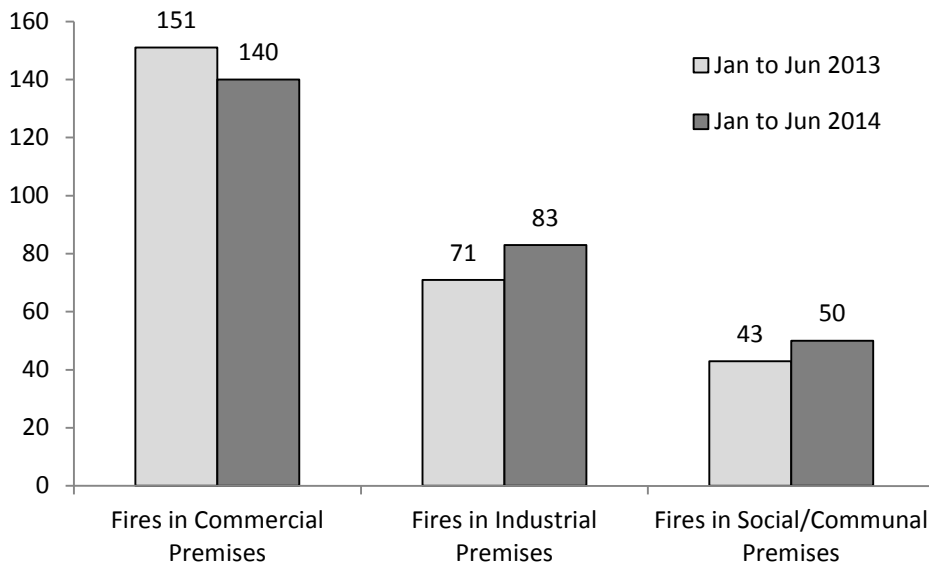
Please refer to **Annex A** for the Fire Safety Advisories for electrical fires and other types of fires in residential premises.

## **FIRES IN NON-RESIDENTIAL PREMISES**

### **Drop of 7.3% in number of fires in commercial premises**

12. The number of fires in commercial premises fell by 11 cases (7.3%), as shown in **Chart A4** below. These fires occurred mainly in eating establishments, shopping complexes, and shop houses.

13. Fires in eating establishments (e.g. restaurants, coffee shops, canteens, hawker centres) accounted for 34 cases (24.3%) of the total fires in commercial premises from Jan to Jun 2014. These fires mainly involved unattended cooking, ventilation unit and exhaust ducting, electrical cooking appliances and gas stoves/ovens. On 30 March 2014, SCDF was activated to a fire which broke out at a coffeshop along Balestier Road. The fire engulfed the entire coffeshop within minutes.



**Chart A4: Breakdown of fires in non-residential premises**

### **Public education efforts to reduce fires in eating establishments**

14. In 2013, SCDF collaborated with the Workplace Safety and Health Council to distribute posters and leaflets on fire safety advisories to the service and hospitality industries. Since early this year, SCDF together with the NFEC and the Singapore Foochow Coffee Restaurant and Bar Merchants Association has engaged coffee shop owners through fire safety awareness workshops. The inaugural workshop was conducted in April this year and attended by about 80 coffee shop owners. During the workshop, SCDF shared with the participants case studies, fire prevention tips as well as the importance of maintaining fire fighting provisions such as hose reels and fire extinguishers. There was also hands-on fire-fighting session using fire extinguishers.

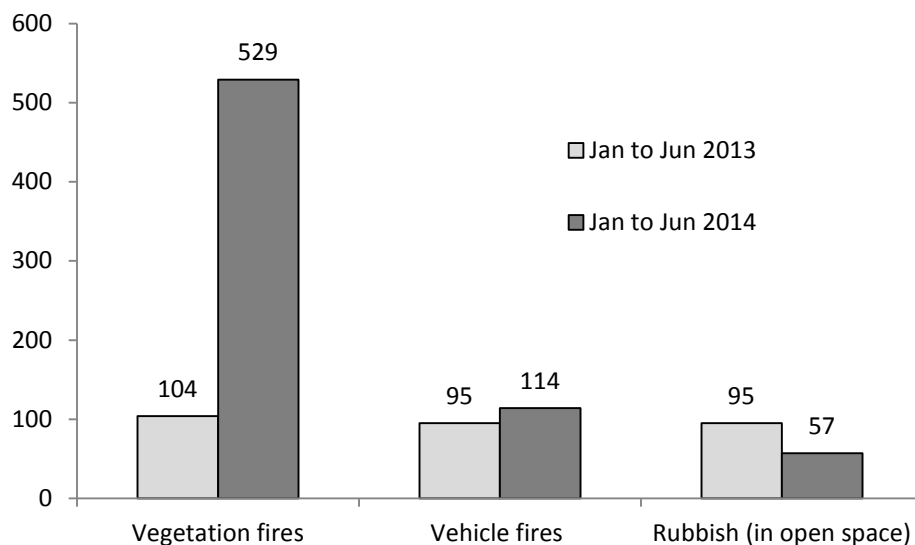
15. The number of fires in industrial premises increased by 16.9%, as shown in **Chart A4** above. Of the 83 fires in industrial premises from Jan to Jun 2014, 17 cases or 20.5% involved warehouses. A recent major warehouse fire on 27 Apr 2014 at Tuas Avenue 11 involved petroleum-based products. The fire was extinguished by SCDF within two and half hours and there were no injuries. The fire also saw the deployment of SCDF's Unmanned Firefighting Machine (UFM) for the first time.

### **FIRES IN NON-BUILDING PREMISES**

#### **Significant increase in vegetation fires due to dry spell**

16. There was an increase of 447 cases in the number of non-building fires, from 319 fires from Jan to Jun 2013 to 766 fires from Jan to Jun 2014. The marked increase can be attributed to the significant increase in vegetation fires from 104 cases to 529 cases, as shown in **Chart A5** below. The spike in the number of vegetation fires was largely contributed by the unusual dry spell experienced from

mid Jan to Mar 2014. This is the highest number of vegetation fires for the six months of the year since 2005 which peaked at 697.



**Chart A5: Fires in non-building places (top 3 types)**

17. One of the large vegetation fire occurred near Aviation Park Road which took SCDF four hours to extinguish. The fire involved pockets of fire that covered an area about eight football fields in size.

18. None of the 529 vegetation fires from Jan to Jun 2014 resulted in injuries. Of the 529 vegetation fires, 255 cases (48.2%) were caused by lighted materials and 224 cases (42.3%) were caused by exposure to sun rays. Members of public can help to minimise such fire occurrences by observing the fire safety advisory for vegetation fires as listed in **Annex A**.

### **Vehicle fires increase by 20%**

19. The number of vehicle fires increased by 20% from 95 to 114 cases. Of the 114 cases, one in two involved motor cars which contributed to almost 60 cases (52.6%). Most of the fires occurred while the vehicles were travelling on the road and were caused by ignition sources such as electrical faults and overheating within the engine compartment. Most vehicle fires start small but can develop rapidly due to presence of flammables such as petrol, diesel and lubricants.

### **Public education efforts to reduce vehicle fires**

20. Since October 2013, SCDF has been working with petroleum companies (Shell, ExxonMobil, Singapore Petroleum Company) to distribute brochures on fire safety tips against vehicle fires at petrol kiosks. SCDF has also worked with the General Insurance Association of Singapore (GIA) to publish advertorial in the local print media on fire safety advisory for vehicle fires. In addition, SCDF has also worked with the Automobile Association of Singapore to publish an article on vehicle fires in their September issue of the Highway magazine. SCDF will continue to work with the media to incorporate fire safety advisory in media reports on vehicle fires

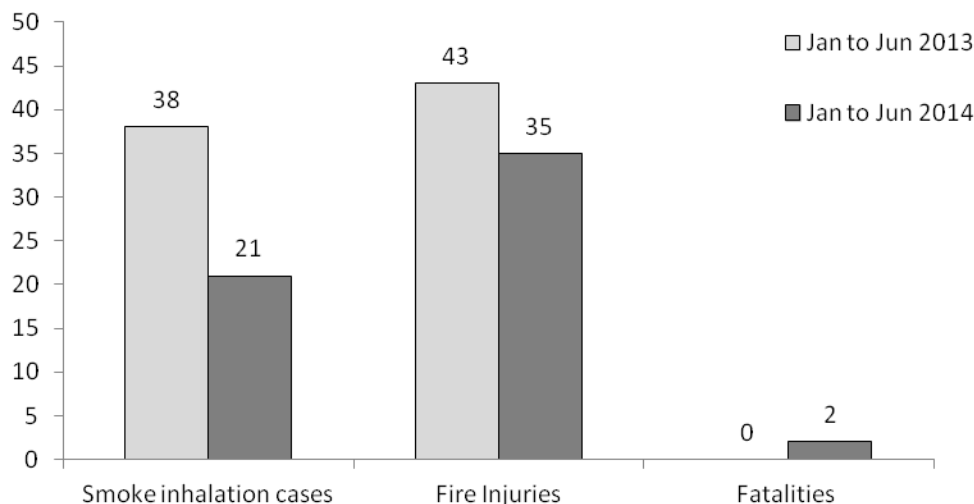
and harness on its social media platforms to constantly remind netizens on vehicle fire safety advisory.

## **MORE THAN HALF OF ALL FIRES CAUSED BY THE INDISCRIMATE DISPOSAL OF LIGHTED MATERIALS**

21. 'Dropped Light' remains the highest contributing cause of fires, contributing to 1,307 cases (51.6%) of all fires between Jan to Jun 2014. 'Dropped Light' refers to lighted cigarette butts that were not completely extinguished, embers from charcoal, and lighted incense sticks.

## **FIRE INJURIES/FATALITIES**

22. Of the 2,532 fires from Jan to Jun 2014, 42 incidents resulted in casualties, with 21 smoke inhalation<sup>1</sup> cases and 35 fire injuries<sup>2</sup>. There was a substantial decrease of 17 cases (44.7%) in the number of smoke inhalation cases. The number of fire injuries also fell by 8 cases (18.6%). Majority of the fire injuries were 1<sup>st</sup> degree or superficial burns. Please see **Chart A6** for the breakdown on the number of smoke inhalation cases and injuries resulting from fire incidents.



**Chart A6 : Smoke inhalation cases, fire injuries and fire fatalities**

23. There were two fire fatalities for Jan to Jun 2014 arising from a fire that broke out at the Marina Bay Suites on 13 Jan 2014. The fire involved contents of renovation materials located at the service lift lobby.

<sup>1</sup> Smoke inhalation refers to injury due to inhalation of smoke or gaseous product of combustion into the respiratory system

<sup>2</sup> Fire injuries refer to burns (including 1<sup>st</sup> degree, 2<sup>nd</sup> degree and 3<sup>rd</sup> degree) sustained from fire incidents.

1<sup>st</sup> degree burn is superficial burn that affects only the epidermis or superficial skin

2<sup>nd</sup> degree burn is partial thickness burn where the damage penetrates into some of the underlying layers of the skin and the skin is mottled, white to red and often blistered

3<sup>rd</sup> degree burn involves injury to all layers of the skin, the skin is dry, leathery and often white or charred

## **FIRE SAFETY ADVISORY**

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### **1. Rubbish Chute/Bin fires in residential premises**

- Completely extinguish lighted materials such as lighted cigarettes and sparklers before disposal
- Douse charcoal embers with water before disposal
- Avoid throwing flammable substances like paint, oil or kerosene into rubbish chutes/bins

### **2. Discarded items fires in residential premises**

- Do not leave discarded items at common areas such as corridors, lift lobbies, void decks and staircases
- Arrange with Town Councils for the removal of unwanted bulky items such as cupboards, sofas
- Anyone who observes items being discarded at common areas should report them to the Town Council

### **3. Fires involving household contents**

- Keep lighted materials (lighters, matches, candles, sparklers) out of children's reach
- Store flammable substances in a safe place
- Extinguish cigarette butts and matches completely
- Do not place window curtains or any combustible materials near praying altars, stoves or lighted materials
- Keep lighted candles away from paper or cardboard decorations, foliage, curtains and furnishings. they should be placed in stable holders on heat-resistant surface so that they will not fall over

### **4. Unattended Cooking Fires in residential premises**

- Do not leave cooking unattended
- Keep including the stove-top, cooker hoods, ovens clean and free of grease
- Turn off all the cooking appliances and unplug them when not in use
- Avoid wearing clothes with long loose sleeves when working near heat sources
- Keep flammable liquids (e.g. cooking oil and wine) and combustible materials away from heat sources such as the stove
- Charcoal should be doused with water when cooking is done
- Keep LPG cylinders in a well-ventilated area

### **5. Electrical Fires in Residential and Non-Residential Premises**



- Never overload electrical outlets with electrical appliances
- Always switch off appliances when they are not in use
- Check the condition of wires regularly; frayed wires or cracked cords should be replaced or repaired immediately
- Do not run wires under carpets or mats and keep wires away from hot Surfaces
- Use electrical plugs which carry the SAFETY Mark

## 6. **Fires at Eating Establishments (restaurants, coffee shops, canteens, hawker centres)**

- Turn off cooking appliances when not in use or whenever you need to attend to other matters, even for a short while
- Do not place or store combustible materials near stoves
- Avoid wearing clothes with long loose sleeves when working near heat sources
- Clean hoods and ventilators regularly
- Do not store LPG cylinders in poorly ventilated places
- Do not overload electrical outlets or use frayed wires and insulators.

## 7. **Vehicle Fires**

### **Equip your vehicle with a fire extinguisher**

- It is advisable for every vehicle to be equipped with a fire extinguisher to enable the driver to extinguish an incipient fire before it spreads
- For a step-by-step guide on how to operate a fire extinguisher, download the SCDF application from the Apple and Android App store or visit the SCDF website link at:  
[http://www.scdf.gov.sg/content/scdf\\_internet/en/community-and-volunteers/publications.html](http://www.scdf.gov.sg/content/scdf_internet/en/community-and-volunteers/publications.html)

### **Measures to minimise injury during a vehicle fire**

- If you spot any sign of smoke emitting from your vehicle, pull over safely to the side of the road, turn off the ignition, and evacuate everyone from the vehicle
- If you detect a fire and have a fire extinguisher with you, extinguish the fire and/or call 995 for the SCDF

### **Tips to prevent a vehicle fire**

- Service your vehicle regularly at authorised vehicle workshops
- During each servicing session, ensure that the vehicle's electrical, engine and fuel systems are checked for any defect
- Outside of scheduled servicing period, owners are encouraged to conduct visual checks for any sign of oil leakage

### **8. Vegetation Fires**

- Do not throw lighted materials such as lighted cigarette butts onto grass patches, fields and rubbish dumps
- Do not discard unwanted items such as furniture, beds and mattresses at grass areas/fields/gardens as they can serve as additional fuel to burning vegetation
- Home owners with grass compounds should keep grass trimmed and watered
- Incense papers should be burnt in incense burners such as those provided for by the Town Councils. These burners should be placed on flat open ground at a safe distance from combustible materials and electrical sources (e.g. switch room). After the prayer session, one should check around for smouldering incense in the vicinity and ensure that it is completely extinguished