

Technical Guidance for Minimising Fire Risk_ Cooking Heating and Lighting provided by Kindling Safety <https://www.kindlingsafety.org/>



Türkiye Earthquake 2023 Shelter Sector Technical Working Group Meeting

Fire Safety Guidance

Socio-technical context

- Environment and sustainability
- Settlement types
- Social infrastructure
- Culture, incl. social norms, religion, holidays
- Relationship with fire (positive and negative)
- Gender, disability & inclusion
- Daily living

Fire safety education

- Humanitarian sector
- Community

Prevention

- Means of cooking
- Means of heating
- Means of lighting
- Electricity
- Individual habits and practices

Fire detection and alarm

Evacuation

- Evacuation routes
- Human behavior
- Evacuation management

Minimize fire spread (shelter/building scale)

- Materials of construction
- Shelter contents
- Compartmentation
- Localized fire response systems

Minimize fire spread (settlement scale)

- Materials of construction
- Separation distances between structures
- Fire resistance of separating elements
- Fire breaks

Firefighting, search and rescue

- Incident command system
- Emergency communications
- Emergency vehicle access
- Water access
- Firefighting resources & training
- First aid & ambulatory service

Post-fire

- Fire investigation
- Fire incident reporting
- Healthcare: physical health
- Healthcare: mental health
- Building back safer

- Means of cooking, heating, and lighting present significant ignition risks, especially when open flames are used indoors.
- Determining which form of cooking or heating is "safer" between options is complex, and the probably and severity of a fire occurring should be considered, e.g.,
 - Liquefied Petroleum Gas (LPG) can leak presenting fire and explosion risks.
 - Open flames, such as those found in gas stoves, three stone fires, and other forms of cooking equipment are a significant fire hazard because they provide a piloted source that can easily interact with combustible materials, bringing together all three elements of the fire triangle (heat, fuel, and oxygen).
- Consider the potential for outdoor cooking spaces, including communal cooking spaces, if socially appropriate and safe. Where indoor cooking is used, establish a designated area for cooking with non-combustible barriers (e.g., line with cement, mud, lime plaster), and ensure there is sufficient spacing between cooking spaces and the rest of the shelter.
- Assess affected communities' cooking behaviors, awareness of related fire risks, and preparedness to respond to uncontrolled cooking fires. Design and deliver cooking fire safety education messaging and programming, including practical training for response to different types of cooking fires.
- Keep anything that can burn at least 1 meter away from heating equipment and candles. Place candles in jars with sand, or similar. Keep anything that can burn at least 305 mm from candles that are in a jar with sand.
- Space heaters should have an auto shut-off if the heater tips over.
- All fuel burning equipment should be vented to the outside to avoid carbon monoxide (CO) poisoning. Combustible materials should not be in contact with the chimney, and a surround of non-combustible materials should be provided at openings where the chimney exits via shelter walls or ceiling. Chimneys should Regularly clean and inspect heating equipment including chimneys.
- Storage of fuel in shelters and in warehouses needs consideration



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