Challenges - Informal Settlement Incidents

Fire Safety Symposium - Goodwood
28th February 2013
Informal fires – rapid fire spread
Formal fire – speed of fire spread
CoCT – Fire and Rescue Service

- City area expands across 2455 km²
- Variable risks contained within - ranging from extreme to low risk.
- Includes Nuclear Power station, international airport and harbour, military installations, Petro-chemical industries, high risk commercial and industrial areas, high to low end market residential properties, wildland interface and of course, informal settlements (250+)
- Close to 4 million inhabitants - more than double the population of the entire rest of the Western Cape Province
- 30 fire stations
- Three districts
- 9 Divisions
- 941 operational fire-fighting staff
Service delivery areas

Variable risk area = 2456 Km²

- 3 Districts
  - (District HQ in each)
- 9 Divisions
  - (Divisional HQ in each)
- 30 Fire Stations
  - (Community stations in each division)
Informal Fire Stats

- Number of incidents responded to

![Graph showing actual responses in informal settlements from 1999 to 2012. The graph indicates a general increasing trend in incidents, with peaks in 2007 and 2012.](image)
Stats

- Number of Structures affected

![Graph showing the number of IDU's affected from 2005 to 2013. The numbers affected are as follows:
- 2005: 8864
- 2006: 5067
- 2007: 4067
- 2008: 4612
- 2009: 3780
- 2010: 3480
- 2011: 4662
- 2012: 3009
- 2013: 1586]
Stats - Deaths

- Deaths

Deaths - Structural Incidents

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>113</td>
</tr>
<tr>
<td>2006</td>
<td>65</td>
</tr>
<tr>
<td>2007</td>
<td>97</td>
</tr>
<tr>
<td>2008</td>
<td>94</td>
</tr>
<tr>
<td>2009</td>
<td>73</td>
</tr>
<tr>
<td>2010</td>
<td>137</td>
</tr>
<tr>
<td>2011</td>
<td>151</td>
</tr>
<tr>
<td>2012</td>
<td>105</td>
</tr>
<tr>
<td>2013</td>
<td>21</td>
</tr>
</tbody>
</table>
## Stats - Deaths

<table>
<thead>
<tr>
<th>Deaths</th>
<th>Adult Males</th>
<th>Adult Females</th>
<th>Male Minors</th>
<th>Female Minors</th>
</tr>
</thead>
<tbody>
<tr>
<td>105</td>
<td>66</td>
<td>19</td>
<td>7</td>
<td>13</td>
</tr>
</tbody>
</table>
Informal Settlement Fires - 1999-2012
Monthly totals
Stats

- Time of day

<table>
<thead>
<tr>
<th>Time of day calls - Informal Shack incidents - three hour intervals</th>
<th>Totals for 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>00:00 - 02:59</strong></td>
<td><strong>03:00 - 05:59</strong></td>
</tr>
<tr>
<td>Sunday</td>
<td>54</td>
</tr>
<tr>
<td>Monday</td>
<td>44</td>
</tr>
<tr>
<td>Tuesday</td>
<td>24</td>
</tr>
<tr>
<td>Wednesday</td>
<td>21</td>
</tr>
<tr>
<td>Thursday</td>
<td>13</td>
</tr>
<tr>
<td>Friday</td>
<td>11</td>
</tr>
<tr>
<td>Saturday</td>
<td>39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>206</td>
</tr>
</tbody>
</table>
Stats – Time of day - 2012

Incidents - Time of day - 3 hourly intervals

<table>
<thead>
<tr>
<th>Time of Day</th>
<th>Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>00:00 - 02:59</td>
<td>206</td>
</tr>
<tr>
<td>03:00 - 05:59</td>
<td>138</td>
</tr>
<tr>
<td>06:00 - 08:59</td>
<td>71</td>
</tr>
<tr>
<td>09:00 - 11:59</td>
<td>119</td>
</tr>
<tr>
<td>12:00 - 14:59</td>
<td>136</td>
</tr>
<tr>
<td>15:00 - 17:59</td>
<td>137</td>
</tr>
<tr>
<td>18:00 - 20:59</td>
<td>158</td>
</tr>
<tr>
<td>21:00 - 23:59</td>
<td>219</td>
</tr>
</tbody>
</table>
Stats – Day of the week

Informal Incidents - Day of the week

- Sunday: 232 Incidents
- Monday: 186 Incidents
- Tuesday: 135 Incidents
- Wednesday: 139 Incidents
- Thursday: 121 Incidents
- Friday: 142 Incidents
- Saturday: 229 Incidents
Fires: Informal Settlements

Causes

- Predominantly negligence and accidental
  - Relates mostly to the use of various fuel types for:
    - Open-flame cooking
    - Lighting and heating
- Deliberate
  - Settling domestic violence issues
  - Settling crime related issues
- Substance abuse
  - Alcohol induced activities and non-activities
  - Back-yard Tik use/preparation.
- Electrical supplies
  - Illegal electrical connections
The other problem
Langa: Zone 17, 19 & 20 – Destruction of Fire on Monday, 05 March 2012
Langa: Zone 17, 19 & 20 – 2 Days After Fire of Monday, 05 March 2012

Starter Kits:
- 10 x Poles
- 5 x IBR Sheets
- 15 x 3m 250 micron plastic
- 500g 3 inch nails
- 500g 4 inch nails
- 500g clout nails

“Comment”:
- This is merely a starter kit
- On average provides household with approximately 2.7m²
- Disaster victims cautioned to maintain necessary fire breaks during reconstruction.
Fires: Informal Settlements:

Further humanitarian assistance—

- Temporary re-location of displaced residents
  - Community halls
  - Community centres
- Disaster relief
  - Food Parcels,
  - clothing,
  - blankets,
  - Trauma counselling,
  - baby packs
- R 1200 grant/payment to fire victims

Beneficiary Data:

- Data of disaster victims are survey data electronically captured on spreadsheet by ISM staff and forwarded DRM.
- DRM Centre verified data against claim for payment to SASSA.
- Information is gathered in situ.
- Information provided: verified against existing database information.
- During large scale fires PGWC Social Development & SASSA assist with assessment and gathering information.
- Social relief of distress grants payment done by SASSA.
Fires: Informal Settlements:
*Human Settlements Services – Informal Settlements Management*

**Post Fire Re-blocking:**
- to provide services
- provide some protection against the spread of fires
- provide access for emergency vehicles in times of disaster.

**Constraints:**
- Resistance from community
- Lack of nearby land for temporary relocation
- Pre-planning (need to have knowledge of settlement up front)
Fires: Informal Settlements: 
**Solid Waste Management**

- Disaster Risk Management Centre informs Solid Waste Management
- Responds to fires for debris clean-ups in recognized informal settlements only.
- Once fire is cold and community have had opportunity to salvage goods: Solid Waste clear the area and remove all debris remaining.
- Backyarder fire debris clean-ups are the accountability of either Human Settlements Services or private depending on the ownership of the property.
  - In these cases often the householders are erroneously told to put their debris on the pavement for our removal. This must be corrected as it is illegal dumping in those instances and the householders are liable for a fine.
Fires: Informal Settlements: 

Initiatives

- Terms of reference

- 5 Point Strategy
  - Education and Awareness
  - Engineering and Technology
  - Enforcement
  - Emergency Preparedness
  - Emergency response
  - Rehabilitation
Fires: Informal Settlements: Initiatives

- GIS Mapping of statistics
- F&RS and DRM Education and Awareness programs
- SKID Unit Proposal – Fire Services
- TRITON Canister roll out – Joe Slovo - Langa
- Addressing illegal connections – Electricity
- UISP – Upgrading In-situ Projects – 9 Projects
- Re-blocking and layout – 25 projects
- Post fire re-blocking policy
Joe Slovo - 2005
Fires: Informal Settlements:

External Service Provider Proposals

- Fire extinguisher purchase and donation
- Fire Retardant Paint – Contego and Urban Mosaic
- CHUBB fire home kits
- PGWC – Community Development Workers (CDW Project)
- Pyro-Cote
- Fireball
Fires: Informal Settlements:

Summary

- The challenges facing Fire and Rescue Services:
  - Inherent cultural and traditional practices of settlers
  - Number of inhabitants and informal settlements - steady increase in population in these settlements
  - Haphazard construction methods
  - Predominantly combustible materials used for construction
  - Use of traditional heating and lighting sources
  - Time of day incidents
  - Political influences
  - Seemingly non-response of residents to heed the dangers of unsafe practices, given the extensive media coverage of these events
  - Hostilities at fire incidents – damages to fire equipment
Questions ?
Thank you